Универзитет у Бањој Луци
ЕКОНОМСКИ ФАКУЛТЕТ
FACULTY OF ECONOMICS
UNIVERSITY OF BANJA LUKA

4th REDETE 2015 Conference

ECONOMIC DEVELOPMENT AND
ENTREPRENEURSHIP
IN TRANSITION ECONOMIES:
Assessment of the last 25 years, going beyond the `transition`

ISBN 978-99938-46-54-3

Graz, October 22-24, 2015
www.redete.org

Универзитет у Бањој Луци
ЕКОНОМСКИ ФАКУЛТЕТ
FACULTY OF ECONOMICS
UNIVERSITY of BANJA LUKA
1975

4th REDETE Conference

ECONOMIC DEVELOPMENT AND ENTREPRENEURSHIP IN TRANSITION ECONOMIES:

Assessment of the last 25 years, going beyond the `transition`

CONFERENCE PROCEEDINGS

Graz,
October 22-24, 2015

ISBN 978-99938-46-54-3

www.redete.org

Publisher:
Faculty of Economics, University of Banja Luka
Majke Jugovića 4, 78000 Banja Luka
Republic of Srpska, Bosnia and Herzegovina Phone: + 387 51 430 012 • Fax: + 387 51 430 053

***For the Publisher*:**
Novak Kondić, Dean

Managing Editors:
Jovo Ateljević and Jelena Trivić

Typesetting:
www.eradovi.com
Cover Design:
www.ekonferencije.com

ECONOMIC DEVELOPMENT AND ENTREPRENEURSHIP IN TRANSITION ECONOMIES:
Assessment of the last 25 years, going beyond the `transition`

4th REDETE Conference

Proceedings:
PDF on CD ROM with full papers

Edited by:
Faculty of Economics in Banja Luka

ISBN 978-99938-46-54-3

Graz, October 22-24, 2015

ECONOMIC DEVELOPMENT AND ENTREPRENEURSHIP IN TRANSITION ECONOMIES:

Assessment of the last 25 years, going beyond the `transition`

4th REDETE Conference

Under the support of:
Government of Republic of Srpska

Minister of Science and Technology
Professor Jasmin Komić, PhD

Programme Committee:
Jovo Ateljević, Chairperson (RS-BiH)
Jelena Trivić, Conference secretary (RS-BiH)

Peter Rosa, UK
Carlos Fernandez, Portugal
Ljiljana Eraković, NZ
Anna Rogut, Poland
Jelena Budak, Croatia
Irena Ateljević, Netherlands
Kiril Todorov, Bulgaria
Tony O'Rourke, UK
Marijan Cigula, Croatia
Nikola Vukmirović, BiH
Saša Petković, BIH
Željko Vaško, BiH
Veland Ramadini, FRY Macedonia
Radoslav Grujić, BiH
Biljana Predić, Serbia
Fuada Stanković, Serbia
Alistair R Anderson, UK
Stephen Page, UK
Vassilis Fouskas, UK
Friederike Welter, Sweden
Slavica Singer, Croatia
Ljubinka Joksimović, Serbia
Dejan Jović, Croatia
Bojan Zečević, Serbia
Zdravko Todorović, BiH
Jovo Ateljević, BiH
Darko Petković, BiH
Zhelyu Vladimirov, Bulgaria
Nexhbi Veseli, FRY Macedonia
Branko Ljutić, Serbia

Sponsors and Partners of the 4th REDETE Confernce

Host:

Универзитет у Бањој Луци
Економски факултет
Faculty of Economics
University of Banja Luka

Partners:

Supported with:

Media coverage:

EU BORDER MBA

PART ONE:
MACRO ENVIRONMENT, ECONOMIC DEVELOPMENT, GROWTH AND FDI POLICIES

PART TWO:
SMEs, BARRIERS TO BUSINESS AND BUSINESS STRUCTURES

PART THREE:
STRATEGIES FOR TRANSITION COUNTRIES, ROLE OF LOCAL/REGIONAL GOVERNMENT AND COMPANY STRUCTURES

PART FOUR:
ENTREPRENEURSHIP IN THE LAST 25 TEARS

PART FIVE:
BUSINESS AND HIGHER EDUCATION, HRM in SME's, PUBLIC SECTOR ENTREPRENEURSHIP, BUSINESS PERFORMANCES

PART SIX:
MARKETING, CONSUMER BEHAVIOUR AND TOURISM

PART SEVEN:
FINANCE, FINANCIAL MARKETS, ACCOUNTING AND RISK MANAGEMENT

PART EIGHT:
SOCIAL ENTERPRENEURSHIP ENTREPRENURIAL BEHAVIOUR AND ASSOIRATION, GENDER ISSUES

PART NINE:
INNOVATIONS, INCUBATORS, ICT, SUSTAINABLE DEVELOPMENT

FORWARD

The REDETE forum has become mobile; this time held in Graz-Austria and hosted by the University of Graz which is one of the leading universities in Europe. Graz is also an important cultural and university hub in this part of Europe, with more then 50 000 students and many of which come from South-East Europe (SEE). The fourth REDETE conference will continue to host excellent speakers and special guests, several of which are chief editors of quality international journals. These people generously support the conference and contribute its quality and internationalisation, which is critical for young researchers from transition countries that wish to be integrated in the global academic community. In fact, this is the ultimate aim of the REDETE conference.

We also work hard to make our conference accessible to all including those scholars that are not able to secure full funding. This is thanks to the support of conference partners and sponsors which include: the Ministry of Science and Technology of RS, M-tel Austria, Sparkasse, Govt. Of Steiermark, WIFI Austria, Investment-Development Bank of RS, Representative Office of RS in Vienna, Wiener Insurance, Nova Banka (BiH), Agency for SME's RS, Foreign Trade Chamber of Commerce of BiH.

To look at 25 years of trasition, as the conference topic suggests, our intention was to provoke researchers to critically observe the transition from a distance using adequate methodologies. Indeed, one of the key deficiencies of research conducted by researchers from countries in transition is methodology as they tend to replicate those methodological and conceptual frameworks applied in developed economies. The REDETE forum provides space for upcoming researchers committed to these challenges, applying methodologies that better fit conditions created by the transition process.

The topics presented by the invited speakers addressed some of these and other issues:

"Transitioning to heterogeneity – looking forward to difference and diversity", Susan Marlow;

"The importance of context in entrepreneurial research", Alistair Anderson;

"Taking stock of 25 years of transition", Joern Kleinert;

"The New Entrepreneurship", Andrew Burke;

"Evolving definitions in family business research", Peter Rosa;

"Not only Entrepreneurial Innovation but also Scientific Methodology: How J.A. Schumpeter must be Seen in Economics and Entrepreneurship Discourse", Dieter Bögenhold; and

"Relatedness and connectivity in the design of the Smart Specialization Strategy", Donato Iacobucci.

This time we have accepted over a 100 papers from around 250 authors. The topics were increasingly diverse ranging from the macro business environment; entrepreneurship in transition economies; economic development, international business, SMEs, business development; strategy and business performance; business and higher education; innovation in the public sector; marketing, consumer behaviour, tourism; business financing, financial markets, accounting and risk management; entrepreneurial behaviour, social entrepreneurship and gender; innovations and business infrastructure and the like. The selected topics provide us with a wealth of information and many opportunities for discussions during and after the Conference. In the context of transition countries, most of these topics lack systematic empirical enquiry.

Generally speaking, a majority of the papers published in this volume indicate that development trends in transition economies are not encouraging. The latest figures suggest that most of these economies have not recorded any growth for the last 4 plus years and in some cases, in the last 25. Negative growth, low investment, or no major investments, continue to generate high

unemployment, particularly amongst the young people who as a consequence are leaving their own countries. Primary responsibilities for finding appropriate solutions lie within the transition countries themselves. Yet, it appears that many of these countries are unable to respond to the challenges of an increasingly globalised world that is increasingly closely integrated in terms of trade and capital flows. Nevertheless, domestic conditions and politics in particular, bear the key weight for insufficient provision in investment in education, political instability and corruption, poor healthcare systems, weak institutional infrastructure, law and finance, ineffective tax structures and informal markers, and so on.

Both presentations and the papers included in this volume have provoked critical and constructive discussion which has helped us draw several important conclusions:

• The importance of context (political, cultural or any other) was the focus of several keynote speakers, who stressed the importance of contextual differences, both in theory and in practice.

• It was noted that the financial crisis has left negative consequences in terms of liquidity and solvency of both public and private sectors, leaving transitional countries with fewer opportunities for development.

• A number of papers pointed out that the transition countries in Southeast Europe, with the exception of some, have not experienced destruction (such as those from the North African and Middle East affected by the Arab spring), however a long lasting transition has not produced any significant positive results, particularly those countries in the Western Balkans region. Most of the countries of the Soviet and Yugoslav blocs have not yet reached the end of the development of the 1980s.

• The importance of the EU as a kind of anchor due to its close geographical proximity to some countries in Southeast Europe.

• A primarily stable and adaptable political system is required for a successful transition. However, this stability is tested by crises, inequality, and the most recent challenge of the large migration of people from the places in cries.

• Corruption is a problem that is common to many countries in transition and has been addressed by a growing number of scholars. However, we are yet to have reliable empirical evidence on the matter as it mainly comes down to the perception of the public, which is very speculative.

Finally, we strongly believe that the REDETE conference, with support of its individual and institutional partners, will continue to be one of the major sources of solutions for growing socioeconomic problems that transition countries face.

We use this opportunity to invite you to the next REDETE conference, which will be held in Belgrade in October 28-30, 2016.

Graz, Banja Luka, April, 2016

Programme Committee Chairpersons
Jovo Ateljevic & Jelena Trivic

PART ONE:
MACRO ENVIRONMENT, ECONOMIC DEVELOPMENT, GROWTH AND FDI POLICIES

FISCAL REFORM IN MONTENEGRO: PRICE OF IMMEDIATE COMPETITIVENESS OR INVESTMENT FOR THE FUTURE?

Prof. dr Petar Ivanovic1

Prof. dr Dragana Radevic2

Abstract

By introducing Deutsche Mark and later on Euro as a single currency, Montenegro gave up from monetary and based its economic policy onto fiscal policy instruments only. In such situation, fiscal policy became a tool for building the competitiveness of Montenegrin economy. Since 2004, fiscal reform promoted the concept "one digit tax reform". That made Montenegro one of the most attractive investment destinations in the region and in EU. Several years of record growth rates (on average 8.7% in the period 2006-2008) influenced elimination of the budget deficit and brought Montenegro to budget surplus area. Despite the financial crisis, Montenegro did not abandon planned fiscal reform and did not consider prospective tax rates increase, in order to secure budget revenues, which was not the case with other countries. Still, some changes were introduced in parallel to fiscal consolidation measures. The question is what are future challenges in front of policy makers in Montenegro? Would the impact of the financial crisis, and under which conditions, request the revision of current tax policy? How the future public consumption will be financed and what kind of effects one could expect from ongoing fiscal reform in long-term? The paper reviews Montenegrin economic reforms since introduction of sound money and undertaken fiscal reform, which also resulted in a successful first emission of Montenegrin Eurobonds at international markets with three times bigger demand compared to the offer, confirming strong credibility the country and its economic policy have among international investor community.

While facing some important challenges, Government policy remain focused on solely fiscal policy, sticking to Euro as a strong currency, fighting grey economy, further implementation of fiscal consolidation measures, but also building business environment attractive both for domestic and foreign investors. If kept unchanged, introduced one-digit tax system will prove to be long-term investment for increasing the competitiveness of the country instead of only short-term cosmetics.

Key words: *Taxes, Fiscal reform, Fiscal consolidation, Economic freedom, Competitiveness*

[1] Faculty for International Economics, Finance and Business, University of Donja Gorica, Montenegro, ivanovic@t-com.me

[2] Institute for Entrepreneurship and Economic Development, Montenegro dradevic@t-com.me

Introduction

The focus of this paper is on fiscal reform in Montenegro, as one of the key drivers of country's transition from centrally planed to market economy. Economic progress of Montenegro that happened in last decade, especially after regained political sovereignty, and just before the global economic crisis, did not came by chance. It is actually targeted consequence of comprehensive reforms in monetary (at the end of 1999) and fiscal policy (since 2004), as well as related policies of free capital movements and privatization of financial system.

Transition process started in early nineties but was interrupted by international sanctions introduced against Federal Republic of Yugoslavia (FRY). Due to such circumstances, economic development slowed down with increasing grey economy contribution to GDP, as well as hyperinflation which characterized that period[3]. Completely blocked by the relations that formally existed in FRY, Montenegro decided that it would reject policy measures determined by Belgrade[4]. The first economic decision by which such attitude was proclaimed was introduction of Deutsche mark as legal tender in Montenegro in November 1999. This was the first and very important step in further realization of the transition in Montenegro by which basis for further institutional and economic changes was settled.

In January 2002, Euro became legal tender in Montenegro, which resulted in disclosing all distortions of the system, including those from the socialist time. On the other hand, trade and investment flows became simpler, easier and followed by lower transaction costs. Strong currency influenced decreased inflation rate[5] which stabilized through the time and was solely dependent from the oil price at world market and the policy of electricity price restructuring. Theoretically, Euro introduction would mean implementation of the recommendations of Austrian economic school which considers sound money to be the main pillar of healthy economic system[6]. However, the main consequence of such decision was prevailing impact of the fiscal policy which became the only instrument of economic policy for the Montenegrin Government. Since then, economic policy of Montenegro was financially reflected in its budget[7]. With Euro as a currency, economic policy meant striving to achieve Maastricht criteria. In the same time, the goal of the fiscal policy and fiscal reform in Montenegro was not exclusively increase of the budget revenues from taxes, but creation of the environment which is business friendly, as that becomes the precondition for sustainable increase of the budget revenues in the long run. Therefore, Montenegro entered transition phase focused on improving business environment to foster domestic and foreign investments, primarily through creating tax competitive structure, and through fiscal consolidation process which is still ongoing. In a rather short period of time, Montenegro introduced changes in the set up of its business environment, which increased its level of economic freedom[8] and attracted foreign investors[9].

[3] GDP per capita in 2000 was at the level of half of the GDP per capita in 1989, while hyperinflation exceeded 110%.
[4] After the break up of Yugoslavia, two remaining republics where Serbia and Montenegro, with Montenegro being only 5% of its overall population, and having almost the same impact on country's policy development. Joint currency was Dinar, printed in Belgrade, capitol of Republic of Serbia, without any control or even consultations with Montenegrin Government.
[5] From 120% in 1999, to 4.3% in 2004.
[6] As written by Mises, gold standard or sound money is equally relevant as the Constitution or/and basic human rights, as they protect the population from the despotism of the state.
[7] Outline of the economic reform policy measures in Montenegro can be found in the document titled Economic Reform Agenda 2002-2005, and 2002-2007 (after it is revised in 2005), at www.gov.me.
[8] For more information visit: www.doingbusiness.org, www.heritage.org and www.freetheworld.com. In general, Montenegro is recording improvements in the ranking and is often the leader in the region compared to former Yugoslav Republic as well as Bulgaria and Romania, as last EU joined members.
[9] For few years in a row, Montenegro recorded the highest FDIs per capita in Europe, while FDIs did not drop during the crisis either.

Economic Reform Agenda – Fiscal Policy

Economic Reform Agenda[10] defined the basic goal of the fiscal reform – budget balancing in a way that allowed growth of the private sector. The aim was to devise a policy that will allow the expansion of tax base and reduce the tax burden. At the same time, very little attention is paid to the amount of public spending. This is because balancing the budget with a high level of public spending does not have to have a positive impact on developing economies. Updated Agenda (2005) concluded that, in addition to expansion of tax base, reducing the budget deficit requires a control on the expenditure side of the budget, especially the part related to earnings, direct and indirect transfers to enterprises and high transfers to the pension and health fund, and fund for employment.

Public finance system reform implied budget centralization at the national level, through introducing treasury system and fiscal decentralization on local government level. In addition, the Law on Public Procurement was adopted, which was found to increase transparency, enabled more effective control of government expenditures, reducing discretionary powers and reducing corruption. During this period, fiscal reform entailed the introduction and implementation of new tax laws aimed at extending the tax base and reducing the overall burden. The following is an overview of the most important laws that have marked fiscal reform in Montenegro in the period since 2001.

The Value Added Tax (VAT)[11] was introduced, which replaced the sales tax, whereby previous sales tax rates[12] were replaced with the VAT flat rate of 17%. Application of Value Added Tax contributed to the significant expansion of tax base and enlarged fiscal revenues. In addition, the share of grey economy was reduced.

With the new Law on Excise Duties (2002), the list of excisable goods has been reduced to three areas: alcohol, tobacco products and mineral oils, their derivatives and substitutes.

With the Law on Property Tax (2003), local governments were enabled to independently determine the level of rates and to collect taxes. In addition, adopting the new Law on Financing of Local Governments (2003) additionally supported fiscal decentralization, all with the aim to encourage fiscal competition between local governments in Montenegro.

When speaking about Laws on Personal Income Tax and Corporate Tax, particularly significant was the introduction of proportionate taxes in relation to earlier progressive ones. Income tax rates were ranging from 17 to 25%, and together with other fiscal burdens made a total burden of wages higher than the net earnings amount. Profit tax rate amounted to 15% and 20%, where the higher rates was applied to profit exceeding €100 000, while the tax on capital gains was 15%[13].

Today, Montenegro has one of the lowest tax rates on Corporate Profit in the amount of 9%, while Personal Income Tax as of January 1, 2010 was also 9%[14]. This legislative solution was followed by explanation that introduction of proportional taxation on salaries have positive effect

[10] National development document adopted by the Montenegrin Government in March 2003.
[11] The Law came into force on April 1, 2003
[12] 12% for service turnover and 24% for majority of goods. New Law on VAT introduced zero rate for basic food products (bread, sugar, milk and oil), medical equipment, books and similar. Also, the export activities were exempted from VAT payment. Later on, VAT rate for tourism related activities was reduced to 7%.
[13] Proportional income tax rate previously amounted 19%, and the flat income tax rate of 20% was in use as well.
[14] This solution implied abolition of progressive rate of 15%, 19% and 23%, which were, until then, depending on the amount of tax payer salary, were applied to taxable amount of income, and introducing proportional rate of 15% that was in force in 2007 and 2008, and which was subsequently reduced to 12%, and 9% in 2009 and 2010.

on employing new workers, business start-ups, increase of investments, simplifying tax procedures for calculating tax liabilities, as well as greater motivation of employers to pay out salaries in cash (not through various coupons, receipts, etc). The 'list' of tax exemptions was reduced as well.

As a small economy, Montenegro was aware that the only way-out was openness of the economy, which at the same time means ability to be competitive in attracting foreign capital. Therefore, the economic policy relied on the concept of economic freedom, which also meant building a competitive position on international scene, primarily through reducing tax burdens.

By the end of 2003, financial indicators pointed to the slowdown of the economic activity, which led to the reduction of tax revenues. Simultaneously, data showed that only 18% of registered companies pay regularly for taxes and contributions on salaries. Based on these facts, at the beginning of March 2004, the Ministry of Finance of Montenegro proposed the reduction of taxes and contributions by 20%. This was to unburden the economy and employers. As the primary goal of the fiscal policy was to balance the budget, international institutions such as International Monetary Fund and the World Bank objected to this proposal. They felt that this would further burden the budget and led to the fiscal deficit increase[15]. On the other hand, Government's projections of salary fiscal burden decrease policy were positive both in long-term and short-term period, not only in terms of increase of employment and decrease of grey economy, but in terms of fiscal revenue increase as well. Positive examples from other countries provided additional security to persist in intentions. However, the compromise prevailed, which meant that reduction of taxes and contributions on salaries should be 10% and should be executed in phases[16], in intervals of six months (by 5% in July and December 2004)[17].

In addition, abolition of Tax on Capital gains achieved by physical persons was proposed[18].

By introducing the concept of single digit income taxation, both for legal entities and for individuals, and non-taxation of capital gains, Montenegro has become a leader in the competitiveness of the tax system in Europe. This policy rated Montenegro among the countries with the largest fiscal freedom[19]. Despite expectations of IMF, Montenegro recorded a significant increase in tax revenues in late 2003 and 2005, years that marked the application of mentioned laws.

As mentioned, fiscal reform was primarily designed not to increase fiscal revenues but to contribute to the business environment, which would further foster private sector development and attract foreign investors. After introducing Enterprise Law in 2001, one could register limited liability in Montenegro with 1 EUR of starting capital, within four days and with four forms that were downloadable from the web site of the Commercial Court[20]. That contributed to increased number of registered limited liability companies, as well as almost doubled number of entrepreneurs within just one year. Also, it further impacted reduction of the grey economy in the system.

---

[15] At that time, Montenegro had a *Stand by* arrangement with IMF and financial program with the World Bank. In other words, opinion of these two institutions did not have only advisory, but conditional character as well. Successful completion of *Stand By* arrangement with IMF was brought into question, which should result in positive assessment and specific additional writing-off of 15% of debt towards Paris Club Creditors.

[16] Activities of the Ministry of Finance were strongly supported by employers associations, particularly by Montenegro Business Alliance „10% for Montenegro", which essentially advocated „one digit tax reform". Employers' message said that with reduced tax liabilities and contributions for employees, it will be possible not only to increase the number of employees, but also to increase their net salaries.

[17] At the end of 2005, total revenues achieved on the basis of income tax were 8% higher than at the end of 2004.

[18] The Law was adopted on December 2006 and came into force as of January 2007.

[19] According to the Heritage Foundation Methodology, fiscal freedom is a quantitative measure of fiscal burden, where lower tax burden means greater fiscal freedom. On the scale from 0 to 100, where 0 stands for absence of economic freedom, Montenegro's tax regime would gain over 98 points. For details, visit www.heritage.org.

[20] Previously, such procedure would request at least 45-60 days, would cost at least 600-800 DEM, in addition to 5,000 USD of starting capital, and would highly depend on the discretionary rigths of the Court officials.

Fulfilling Maastricht criteria

Introducing Euro as legal tender meant implementation of the fiscal policy which would lead to fulfilling two criteria, as follows: budget deficit of general Government sector below 3% of GDP, as well as public debt[21] below 60% of GDP[22]. Having in mind lack of any investments in the infrastructure in Montenegro, which could not be financed from internal sources, some level of deficit was unavoidable. Implying of the Maastricht criteria in that case would mean primary budget balance[23] at the level below 3%, while public consumption is reformed in parallel.

Therefore, since 2001, Montenegro started its fiscal consolidation[24]. Consolidated budget deficit was reduced from 8% of GDP in 2000 to 3.3% of GDP in 2003, and 2.2% of GDP in 2004, without loans to finance infrastructural projects. In 2006 and onwards Montenegro recorded budget surplus which hit 7% in 2007. Despite all efforts to reduce public expenditures, consolidated public consumption was rather high slightly exceeding 50% of GDP in 2008 and 2009. With the impact of the global economic crisis, in 2008 and 2009 budget deficit was 0.39% of GDP in 2008, and 5.61% of GDP in 2009.

In 2010, Montenegrin public debt amounted 36.5% of GDP. Compared to Euro area and EU27, which recorded government deficit at 6.3% and 6.8% of GDP respectively, and government debt at 78.7% and 73.6%, Montenegro seemed to be doing well at that point[25].

Fiscal Consolidation in Montenegro

According to the research (McDermott and Wescott, 1997), which included 20 countries in the period 1970-1995, in all 14 cases of recorded "significant" fiscal consolidation, an increase of the economic growth rate has been recorded, as well as decline of the unemployment rate and interest rates. Success or failure of fiscal consolidation dominantly depended from the size of the reforms and its composition. Out of 17 cases in which majority of fiscal consolidation is performed through reduction of expenditures, more then half of them were successful, while out of 37 cases in which fiscal consolidation was based on tax increase, only one sixth was successful. Average structural expenditure reduction amounted 3.7% of GDP, while in unsuccessful case only 2.1%. This analysis showed that reduction of public expenditures does not lead to the recession, as suggested by Keynes, but it stimulates and encourages private consumption and investments.

According to the IMF survey, almost all advanced economies were in a need to cut deficits and raise taxes to put their fiscal positions back on a sustainable footing in the coming years (Leigh, et al. 2010). Based on a historical analysis of fiscal consolidation in advanced economies[26], findings show that fiscal consolidation typically reduces output and raises unemployment in the short term. At the same time, interest rate cuts, a fall in the value of the currency, and a rise in net exports usually soften the contractionary impact. According to the examination of the history of fiscal cutback in advanced economies over the past 30 years and evaluation of the short-term effects on economic activity, authors conclude that consolidation is more painful when it relies primarily on

[21] Does not include debt of public companies, ie companies with majority state ownership.
[22] Those rules are designed to secure long term security of Euro, while in the same time contribute to reduce the risk that some EU country in use of Euro, might endanger the other Euro country in EU, by implementing unsustainable fiscal policy (as it is recently identified to be the case with Greece).
[23] Deficit detracted for the amount of the interest.
[24] Fiscal consolidation is a policy aimed at reducing government deficits and debt accumulation within given period of time.
[25] The only unknown fact that might significantly impact budget deficit in Montenegro refers to ongoing restitution process, as there is no precise calculations yet, as it is under the local governments. However, it is relevant fact to keep in mind when considering new borrowing in Montenegro.
[26] Authors relied on simulations of the IMF's Global Integrated Monetary and Fiscal Model (GIMF)

tax hikes; this occurs largely because central banks typically provide less monetary stimulus during such episodes, particularly when they involve indirect tax hikes that raise inflation. Also, fiscal consolidation is more costly when the perceived risk of sovereign default is low. These findings suggest that budget deficit cuts are likely to be more painful if they occur simultaneously across many countries, and if monetary policy is not in a position to offset them. Over the long term, reducing government debt is likely to raise output, as real interest rates decline and the lighter burden of interest payments permits cuts to distortionary taxes (Leigh, et al. 2010).

Fiscal consolidation in Montenegro started in a period when intensive independence campaign was launched which distracted everyone's attention from economic and financial reforms. However, political stability in that period was prerequisite for any kind of transition policy including fiscal consolidation. This was even more relevant having in mind general issues occupying policy makers in Montenegro at that time, such were: high inflation, poor growth rates, low level of investments, high unemployment rate, high budget deficit, high public debt, lack of strategy to manage public debt, low budget revenues compared to GDP, significant foreign aid, rigid labour market, profuse pension system, significant share of grey economy, and financial market which just started to develop.

As previously described, fiscal consolidation meant reduction of budget deficit and decline of the public expenditures, by acting on both sides: expanding the tax basis, followed by more efficient work of tax authorities on revenue sides; and controlling of the public expenditures in nominal terms which would lead to their reduced share in GDP, with economy growth. In the same time, structural reforms included speeding up the privatization process, removing barriers to enter and exit business arena and reducing the state intervention in the economy, along with reduced subventions. Also, first phase of pension system reform came into structural reforms as budget deficit of pension fund was one of the greatest problems of the public finances at that time and was fully unsustainable.

Impact of the Global Economic Crisis and Anti-Crisis Measures

It seems that the greatest challenges for governments in the region in the near future will be reduction of the public expenditures, strengthening of the fiscal discipline, and maintaining the macroeconomic stability, all in order to stabilize public finances and reduce economy "lagging" behind. The main question is from where to collect the income in order to fulfil the "hole" in the state budget, when the economic activity is declining, and due to the illiquidity of the companies' tax collection, export and import are also dropping. Privatization incomes are not so high anymore, therefore in the transition countries there is a need arising that the budget deficit is covered by the increased borrowing on domestic and international financial market[27].

In the countries in the region, global economic crisis caused mostly similar problems: decreased economic activities, decline of consumption and imports, which influenced on significant decrease of the tax revenue. In the same time, there was growth of public consumption and larger deficit, because in the time of crisis, there is a growing need for state intervention, in order to enable functioning of the entire system. Montenegrin economy have grown in the period from 2006 until 2008 in average 9%, which influenced achieving budget surplus, at the level of 4% of GDP in given period. Economic and financial crisis influenced on worsening the situation in real and banking sector, and the crisis in the aluminium industry hit largest industrial companies. For Montenegro, the largest problem was transition from surplus to deficit, which in 2009, after integration of the Funds into the consolidated account of the state treasury and with non-paid obligations was 4.4%.

[27] In order to alleviate crisis consequences, governments of Serbia and Bosnia and Herzegovina signed the agreement with IMF, while Montenegro and Macedonia did not.

The anti crisis package of the Montenegrin Government was more then 10% of GDP and it was aimed to preserve the liquidity of the economy and the banking system.

First support package in 2008 that was aimed to the economy was related to decrease of the personal income tax, from 15% to 12% in 2009, decrease of the taxes for obligatory social insurance, cut of the fee for using the construction land, decrease of prices of electric energy for SME sector and socially endangered population, conducting the project "Job for You"[28] etc.

Support to the banking sector, through providing the guarantees for credit support from international financial institutions – European investment bank and German development bank (KfW), was the first initiative of this kind that was asked by some country. Credit was used by 9 (out of twelve at that time) Montenegrin banks, for what the Government issued guarantees in the amount of €122 millions. The support to the banking sector, and the economy through prematurely payment of the debts, issuing the state guarantees etc was in the total amount of more the 7% of GDP which is one of the largest packages of help in the region and in the Europe.

In order to further enhance the business environment and to improve the liquidity of the economy in 2009 adopted were changes of the Law on corporate tax. Obligation for advanced monthly payment of the corporate tax was abolished and in that sense more money was left to the companies for the needs of the businesses and liquidity improvement. In the same time, by adopting the changes and amendments of the Law on personal income tax the Government continued to further decrease taxes from 12% to 9% and tax rates for advanced payments for any source of income were evened at the level of 9% which provides significant tax relief for entrepreneurs and all those that have additional activities.

To avoid negative effect of the new tax solution to the private sector, contributions paid by the employers were decreased. That influenced on decrease of their total costs, which provides space for changes of the net wage, as well as to distribute decrease of the wages among employer and employee.

Also, in order to improve the liquidity of the municipalities and economy, the Government established the model that provides opportunity for municipalities that their obligations toward the companies could be paid by overtaking the tax credit of the companies that could be paid in nine monthly payments. Several Decrees which allowed delayed or payments in instalments were also introduced to assist the private sector in the period of crisis.

Instead of borrowing from IMF, Montenegro decided to make its debut on the world capital markets by emission of Eurobonds in the amount of €200 million. The reaction of investors was extraordinary, if one takes into account the fact that there were over €600 million in demand, which is a unique case that a country appearing for the first time at the bond market achieved demand three-times higher than supply. The bid was delivered by over 140 investors from 25 different countries from Europe, Asia, USA, and bonds were bought by 125 investors. Such response undoubtedly confirmed that investors have confidence in economic and fiscal policy led in Montenegro.

While being resistant for some period of time. Montenegrin Government was forced to revise tax system under the pressure of the on-going financial crisis. The main measures included: VAT increase from 17% to 19%, introduction of so called "crisis tax"[29], consolidation of the finances at

[28] Subsidized loans to support SME development in deprived regions.

[29] Personal income is taxed 9% up to the level of 720 EUR gross salary amount or 480 EUR net, while amounts exceeding this level are taxed by 15%. The intention is to further reduce crises tax, which has been done in 2014 already for 33%.

local level (municipalities), rationalization of expenditures in public companies, institutions, funds, as well as regulatory agencies; reduction of various Governmental bodies and fees received for those engaged in such bodies; frozen pensions; reduction of all discretionary costs etc.

In addition, all budget items were reduced with exception of those relevant for EU integration process, while grey economy came to the focus of the authorities with zero tolerance attitude. Also, rigid penalties were introduced for those who do not follow the regulation and public procurement is rationalized.

Challenges in Front of Montenegrin Fiscal Policy

Introducing Euro as single currency imposed faster reform of the public finances in order to increase competitiveness of Montenegrin economy at international scene. GDP per capita growth was not enough, having in mind need to increase living standards so long term structure for growth and development is created (Collombato, 2005). In order to achieve such a goal, reduction of tax burden had to be followed by decline of the public expenditures.

The main challenges in front of Montenegro refer to: i) vulnerable fiscal system (including budget deficit, level and dynamics of public debt, and financing and paying back of the public debt), ii) illiquidity in the real sector, iii) poor credit activity of the banks and high incidence of the non/payable loans, iv) need to further improve country's competitiveness and attract FDI.

By the end of 2014, public debt of Montenegro amounted 1,893.4 million EUR or 55.8% of estimated GDP for 2014. Including the debt of the municipalities, net public debt amounted 59.6% of GDP, or 2,022.2 million EUR. With just launched large infrastructural projects, it is expected that public debt of Montenegro will increase further. Sticking to EUR as a currency, further fiscal measures are necessary to improve fiscal discipline and improve collection of revenues. This has to go in parallel with further reduction of employees in the public sector, reduced labour costs and better usage of human, financial and technical resources.

Of course, fighting the budget deficit is not enough if there is no economic growth. For Montenegro, growing by 2% or 3% is not enough and cannot result in better quality of life of its citizens. Therefore, measures of fiscal policy have to go hand by hand with improvement of business environment to support entrepreneurship development and FDI attraction.

According to the IMF research on debt crisis of mid developed countries in last 30 years, probability for the country which public debt is 40% of GDP to enter debt crisis is below 20%, while if ratio of Government debt to GDP is 80%, the probability is 50%. For countries like Montenegro in terms of development, tolerant limit would be debt/GDP ratio between 15 to 20%, while average debt/GDP ratio in 8 countries which went into debt crisis in last ten years or have had to refinance its debt was 62%. While fighting to meet Maastricht criteria, those figures should also be kept in mind.

Conclusions

This paper reviews economic reforms of Montenegro since introduction of Euro as a single currency and implementation of the fiscal reform, in the circumstances when fiscal policy is the only tool for realization of economic policy in the country. Increased burden on fiscal instruments imposed necessity for faster implementation of public finance reform, both in terms of tax burden reduction, as well as decline of public consumption. The need to reduce public expenditures is strengthened by global economic crisis which slowed down economic activity in the country and

consequently reduced tax revenues. In the same time, need for state intervention rose both through providing guarantees to the companies as well as for social transfers.

In relatively short period of time, Montenegro launched successful fiscal consolidation. Due to the global financial crisis, this process is only half done. Reform of the tax structure and introduction of 'one digit tax concept' increased competitiveness of the country, improved its economic freedom index and attracted foreign investors, which was additionally underpinned with gained political independency and maintained macroeconomic stability.

A challenge of setting up fiscal policy which would consent to stable public finances in the long term is in front of Montenegro. In order to survive and return back high growth rates, Montenegro needs to remain open, which in other words requests increased competitiveness at international scene. Therefore, current Government policies are focused on further fiscal consolidation with as little as possible changes of the tax system. On the other hand, in order to keep Euro, Montenegro needs to respect Maastricht criteria, which puts additional pressure to reduce public expenditure.

Reviewed policies imply that priority in further running of fiscal reform would be its restrictive character, as well as learning from the crisis which confirmed that current public spending should be financed from current revenues solely. Debut at international Eurobond market confirmed the credibility of the economic policy run by the Government. However, it has to continue to implement stronger restrictive fiscal policy at expenditure side, and keep competitive tax structure and overall business environment while generating enough revenues to cover public consumption.

Literature

1. C. John McDermott, Robert F. Wescott, Fiscal Reform that Works (1997) International Monetary Fund, http://www.imf.org/external/pubs/ft/issues4/index.htm (accessed 18.08.2015)
2. Centar za preduzetništvo i ekonomski razvoj (CEED) (2009), *Istraživanje o poslovnoj klimi u Crnoj Gori u 2009. godini*
3. Daniel Leigh (team leader), Pete Devries, Charles Freedman, Jaime Guajardo, Douglas Laxton, and Andrea Pescatori, (2010) Will it hurt? Macroeconomic effects of fiscal consolidation, World economic outlook, (accessed 3.10.2014)
4. Dragana Radevic (2008), Moralne posljedice ekonomskog rasta, 2008, *Zbornik "Moral i ekonomija"*, Institut drustvenih nauka, pp. 196-205
5. *Economic Freedom of the World Report* (2010), Fraser Institute, www.fraserinstitue.org
6. *Ekonomski i fiskalni program za 2009-2012*, (2008) Ministry of Finance, www.gov.me
7. Enrico Collombato, On Growth and Development, 2005, ICER, Working Papers
8. Eurostat statistics, http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/2-22042010-BP/EN/2-22042010-BP-EN.PDF (accessed 20.08.2015)
9. Igor Lukšić, Milorad Katnić, Vladimir Kavarić, (2010) *U potrazi za ekonomskim slobodama*, Institut za strateške studije i projekcije, Podgorica, Crna Gora
10. IMF Executive Board Concludes 2010 Article IV Consultation with Montenegro (http://www.mf.gov.me/rubrike/izvjestaji-mmf-a/96153/IMF-Executive-Board-Concludes-2010-Article-IV-Consultation-with-Montenegro.html, accessed September 30, 2010)
11. Institute for Strategic Studies and Prognoses, (2003) *Transition report for Montenegro*, Montenegro
12. Ivana Vojinović, Ana Krsmanović, Jadranka Kaluđerović, 2006, *Proporcionalni porez – akcelerator ekonomskog razvoja Crne Gore*, Institut za strateške studije i prognoze
13. Ludwig Von Mises (1953) *The Theory of Money and Credit*, Yale University Press

INFLUENCE OF FISCAL DECENTRALIZATION ON MOTOR VEHICLE TAXATION IN THE SLOVAK REPUBLIC

Assoc. Prof. Vladimír KONEČNÝ, PhD.30

Abstract

The paper deals with the motor vehicle tax in relation with fiscal decentralization in the Slovak Republic, particularly from 2005 with competence delegated to the self-governing regions in the area of motor vehicle tax. The result of this provision in the field of fiscal decentralization is increasing of differences in the motor vehicle taxation burden in self-governing regions of Slovakia. The paper is the result of solving a series of impact studies solved by the author in this field. Gradually over time from the transfer of competences in setting tax rates on motor vehicles to self-governing regions and usage of the incomes of this tax can realistically assess the development and impact of this element of fiscal decentralization in the Slovak Republic as well as propose a solution of resulting situation. The aim is to eliminate differences in motor vehicle tax burden at regional and interstate level while maintaining the current level of tax revenues of self-governing regions.

Implemented fiscal decentralization in the Slovak Republic does not allow to achieve the objectives and principles of the tax reform concept in the motor vehicles tax area. Filling of the budgets of self – governing regions and financing their activities are also directly determined by the funds raised from motor vehicles tax. The tax rate as well as the range of exemptions is in the exclusive competency of self-governing regions. This negates the possibility to approximate the rates of motor vehicles tax to a level comparable with the recommended minimum tax rates (according to Directive 1999/62 / EC on the charging of heavy goods vehicles for the use of certain infrastructures) or with the average tax rate in European Union countries.

Frequent changes in tax rates well-grounded by the competency of self-governing regions create a climate of uncertainty in the area of vehicle taxation for the future. This uncertainty is multiplied by the increase in tax rates. The time of economic and technical life of road transport vehicles is significantly longer compared to the time of application of unchanged tax rates in specific regions. The solution is centrally determined tax rates with exactly defined criteria for its redistribution among self-governing regions. The trend in some European countries is to stabilize the tax system in the area of vehicle taxation even to the extent, where the tax rates are being reduced

The results of expert studies on motor vehicle tax and impacts on road freight operators costs solved by the author in 2007, 2010 and 2012 were available for the preparation of the draft law on the motor vehicles tax from the position of the Ministry of Finance of the Slovak Republic. The aim of the proposal was to tax motor vehicles more fairly. Motor vehicles tax rates for 2015 were reduced and consolidated at the level of the average rates set throughout the self – governing regions in 2014. The law is effective since 1st of January 2015.

Keywords: *taxation, motor vehicle tax, fiscal decentralization, tax rates*

JEL: *H25, R49*

[30] University of Žilina, Faculty of Operation and Economics of Transport and Communications, Department of Road and Urban Transport, Univerzitná 1, 010 26 Žilina, Slovakia, e-mail address: vladimir.konecny@fpedas.uniza.sk

1. Introduction

Fiscal decentralization is presented as a tool for increasing the efficiency and transparency in the provision of public services (Oates, 1972). The reason for its implementation, are the facts that the self – governing region has a better position to ensure the provision of public services due to the proximity to people and knowledge of local specificities as well as ways to better inform people in comparison with the central government (Rodríguez-Pose et al., 2009, Aristovnik, 2012).

Fiscal decentralization represents a part of the reform of public authority in Slovakia. Between 2002 and 2004 was a period when more than 400 competencies were transferred from government authorities to self – governing regions under the decentralization of public authorities. The transfer was carried out in accordance with the approved law 416/2001 collection of laws, about the transfer of some competencies from government authority to municipality and public authorities in 5 years (up to 1.1.2002, 1.4.2002, 1.7.2002, 1.1.2003, 1.1.2004), (Pétrová 2007).

Since 1st of January 2005 was approved a new system of financing in municipalities and public authorities (II. Stage of fiscal decentralization), which strengthened their autonomy and accountability with using public funds to provide services to the citizens. Economic heart of this process was to strengthen tax revenues of municipalities and public authorities at the expense providing subsidies from the state budget to self – governing regions. The fiscal decentralization follows at the previous transfer of competencies from government authorities to municipalities and public authorities according to law 416/2001 collection of laws, about the transfer of some competencies from government authority to municipality and public authorities and about the amendment of certain laws. To achieve the objectives of fiscal decentralization it was necessary to adopt new legislations. In September 2004, there were adopted four laws:

Law no. 523/2004 collection of laws, about budget rules of public authority

Law no. 583/2004 collection of laws, about budget rules of self – governing regions

Law no. 582/2004 collection of laws, about local taxes and local fees for municipal waste and minor construction waste

Law no. 564/2004 collection of laws, about budgetary determination of income tax revenues of self – governing regions and in December 2004 was adopted government regulation of Slovakia no. 668/2004 collection of laws, about distribution of income tax revenues of self – governing regions with effect from 1st January 2005 (Kozovský et al., 2009).

To strengthen the financial autonomy in self – governing regions from the state budget similarly as in other countries, e.g. Switzerland (Feld, 2003) was an important objective of decentralization in Slovakia. The risks of fiscal decentralization were characteristics that were associated with regional differences in Slovakia (Neupauerová, 2008).

The motor vehicle tax was adopted in 2005 in Slovakia by law no. 582/2004 collection of laws, about local taxes and local fees for municipal waste and minor construction waste. The tax is a direct property tax and the tax facultative within the tax system of Slovakia. Self – governing regions have the option of introducing a tax on motor vehicles, to determine the tax rate and the scope of the exemptions. According to Nižňanský and Valentovič (2002), desirable assumptions from implementing fiscal decentralization include also the tax jurisdiction, which is able to affect a significant proportion of income increase of a community, and a certain degree of freedom in deciding on budgeting and setting tax rates. Self – governing regions obtain the "tax freedom" thanks to decentralization and since 2005 they may set the tax rate of motor vehicles in the form of generally binding regulations. Financial Directorate of Slovakia is the tax authorities, which distribute revenues from taxes between eight regions. This tax freedom and the differences of tax rates cause non-uniformity on the domestic and international road transport market. Demand for transport service is the secondary demand; it is influenced by the level of company demand and individuals for goods and services. The decline in production and decreasing demand for goods and service during the financial and economic crisis significantly determines the performance of the road transport sector. Performance of road freight transport was reduced after 2008 in Slovakia. The quantity of transported goods decreased by 18 % in 2009 compared to 2008. The decline continued

in the following years, there was decreased by 33.7 % in 2012 compared to the year 2008. Raising rates of motor vehicles tax affects the sustainability of business in the road transport sector, which affects employment and also a government revenue in the personal income tax and corporation tax. Motor vehicle tax is a direct cost of carrier; with a declining volume performance of carrier, it increases the unit costs and the price of transport (e.g. Gnap, 2006). That has an impact on the competitiveness of Slovak carriers; especially compared to carriers from neighboring EU countries that pay less motor vehicles tax; and that can perform partly national transport in Slovakia. Nižňanský and Valentovič (2002) state that there are no reason to have any concerns about the deepening of regional disparities in the case of application of tax differentiation. The fact after the introduction of fiscal decentralization is significantly different; it has been confirmed by research (Gnap et al., 2007, 2010, 2012) and analysis in this area (e. g. Masaryk, 2014).

Different level of rates of motor vehicles tax affects by different ways the cost level of road carriers and their competitiveness in area of sustainability costs and pricing in different regions. Frequent changes in tax rates by the government destabilize the business environment and create an uncertain environment. On the base of a pressure of association of carriers Slovak Republic, mainly association of road transport operators of the Slovak Republic (ČESMAD Slovakia) and union of road transport operators of the Slovak Republic; in 2014, the Ministry of Finance of the Slovak Republic has undertaken to prepare the new law of motor vehicles tax.

2. The motor vehicles tax in the concept of tax reform from 2004 to 2006 in Slovakia

According to the concept of tax reform, the objective of the new law of motor vehicles tax was the creation of a legal basis for taxation only of commercial vehicles according to the concept of tax reform. Law of motor vehicles tax would have replaced the existing law, which was focused on the taxation of passenger vehicles and commercial vehicles that are used for business. The concept of tax reform in relation to motor vehicles tax contained several important objectives:

Objective 1: taxation of all commercial vehicles regardless of their use

Objective 2: take account of environmental load by the amount of emissions in the form of tax relief

Objective 3: tax does not include an exemption (except for vehicles of diplomatic missions and consular posts, if reciprocity is guaranteed)

The concept of motor vehicle tax in terms of reform was in conflict with the concept of fiscal decentralization. The aim was on one hand reduce the number of vehicle taxations about passenger cars and buses and also reduce tax rates for commercial vehicles, which significantly exceed (and currently still exceed), according to the minimum tax rates under Annex I of Directive 1999 / 62 / EC Minimum tax rates applicable to vehicles. The motor vehicle tax rate exceeded the minimum rate of tax according to the directive 1999/62 / EC to 3.7 times, before the application the law of motor vehicle tax. On the other hand; the concept of fiscal decentralization assumed receipts from motor vehicles tax at level of 82.98 million euros (2.5 billion of SKK) in the financing of autonomous regions since 2005, which follows continuously on road tax in 2004, which stood at level of 81.86 million of euros (2.466 billion of SKK), (Tax Directorate of the Slovak Republic, 2004). Lowering of tax rates and the number of vehicle taxations would be contrary with tax receipts of self – governing regions.

3. The motor vehicles tax - objectives of the concept of tax reform in Slovakia and the current state

In the concept of tax reform it was considered to abolish of road tax and introduction motor vehicles tax. The commercial motor vehicles regardless of their use would become the subject of tax and the taxation of motor vehicles and buses would be abolished. No changes have been made in this area in 2004. It can be said that only the name of the tax was changed from road tax to the motor vehicle tax and principles and scope of taxation remained almost unchanged. From the names

of taxes it could be assumed that the road tax is a tax related to the use of road infrastructure and the motor vehicle tax is a tax related to the ownership of vehicle. Name of the tax could be "vehicle tax for business". Taxation of trucks is more related to ensuring the current level of government revenues in self – governing regions (after fiscal decentralization), than with explanation of the tax on an economic base. The ownership principle cannot be clearly applied in the case of commercial vehicles, as a bus or truck is very likely to be used primarily for business or other specific activities. The ownership principle cannot be clearly applied in the case of commercial vehicles as a bus or a truck; it is very likely that the vehicles are used primarily for business or other specific activities. Taxation of these vehicles is an indirect form of income taxation (Sporina, 2012). Vehicle taxation occurs in the form of registration or circulation taxes in the world. Registration tax is a tax that is paid one-time in case of the first registration of a vehicle. The subject of the tax is the vehicle. In connection with a circulation of tax; the following methods of taxation are applied abroad (Graven (2012), OECD (2012), Barbour (2009)):

vehicle tax is a taxation of registered motor vehicles regardless of their use and the way of ownership; tax is usually paid once per year

road tax is a tax that must be paid in connection with the use of motor vehicle on public roads. The subject of the tax is the vehicle but the vehicle has to be used on public road infrastructure. This is not a fee for the use of road infrastructure in the form of tolls.

The road tax and vehicle tax are circulation taxes that are usually paid once per year. In Slovakia, based on law no. 582/2004 collection of laws, about local taxes and local fees for municipal waste and minor construction waste; the self – governing regions may impose a motor vehicles tax in generally binding regulations (GBR). They include annual tax rates separately for passenger cars and commercial vehicles. Tax rates are different between regions. Regions may also define a rate of benefits for vehicles and a scope of the tax exemptions. The current legislation discriminates against entrepreneurs at the expense of other owners of vehicles. There is no economic justification for the payment of motor vehicle tax only by legal persons and entrepreneurs. On the other hand, the universal application of the current motor vehicle tax rates for all registered passenger vehicles would have an extremely negative effect especially at low-income groups in Slovakia (Sporina, 2012).

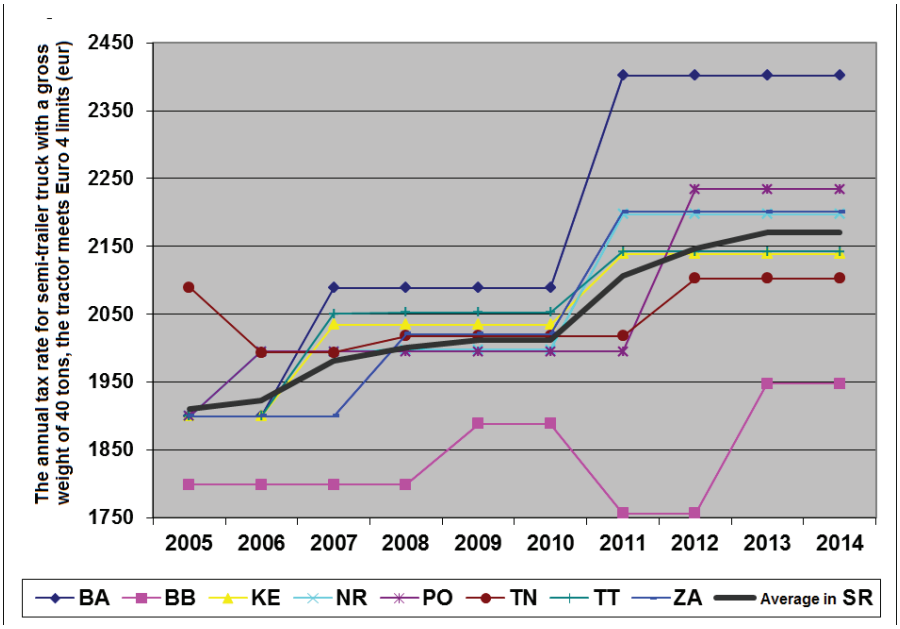
4. Motor vehicle tax rates in Slovakia and their changes

During the introduction of the motor vehicles tax, all self – governing regions set tax rates for 2005 by relevant generally binding regulations; six of the eight self – governing regions introduced the same tax rates. Self – governing regions introduced the same rates road tax as in 2004. In 2005, selected regions used their competence and adopted generally binding regulations to increase tax rates for 2006. In the period 2005-2013, Nitra region (NR), Trenčín region (TN) and Trnava region(TT) (4 changes) adopted the largest number of changes in tax rates, Košice (KE) and Prešov (PO) region (2 changes), minimum changes was adopted in Bratislava region (BA).

This development is unsustainable in the future, because changes in tax rates are inconsistent, uneven and non-conceptual. The result of the concept is growth of tax rates. For a period of nine years the tax rate increased the most in Trnava region (+33.5%) and Bratislava region (+26.5%). The smallest increase was in Trenčín region (+8.2%). The diversity of tax rates and scope of the exemptions are discriminatory, those regional differences are continually increasing. The diversity of tax rates and scope of the exemptions are discriminatory, those regional differences are continually increasing. Business subjects often conduct activities in the common areas and common road infrastructure, irrespective of the territorial affiliation. The differences are continuously growing since the introduction of taxes (in 2005). This development greatly affects the costs of carriers and their level of competitiveness at national and international levels. The average difference of the basic tax rates between regions with the lowest and the highest tax rates represent up to 8.2% in 2014 (refers to Bratislava region and Banská Bystrica region). The largest average

difference of tax rates is 23.4%; between the basic tax rate in Bratislava region and the tax rate for green vehicles meeting the Euro 4 emission limits and more in Trenčín region.

Figure 1 depicts the evolution of annual tax rates of semi-trailer truck with a total weight of 40 tons in the regions of Slovakia, the tractor meets Euro 4 limits. This is the most common type of vehicles combination in national and international road freight transport (Konečný, 2013). The maximum difference of the annual tax for semi-trailer truck between the regions represents value of 454 euros in 2014.



Source: elaborated by author

Figure 1: *Development of the annual tax rate for semi-trailer truck in Slovakia*

According to tax reform for 2004-2006 it is possible to take into account the environmental burden by the amount of emissions in the form of tax relief. For this purpose there is the emission limits rule *EHK OSN no. 49 Emissions from diesel and spark ignition engines*. This regulation establishes maximum levels of selected pollutants from exhaust of diesel engines. Emission limits come into force gradually and it is coming with stricter conditions. Newly registered commercial vehicles must meet those limits. In 2009 entered into force on Euro 5 emission limits and in 2013 entered into force on Euro 6 emission limits.

The development of preference for green vehicles by reduced tax rate is slow. When introducing of motor vehicle tax in 2005 only Banská Bystrica region (BB) applied it; in 2014, 6 of 8 regions applied it too (except the Bratislava and Prešov). The average benefit by reduced tax rate for Euro 3 is 4.2 %, the average benefit for the Euro 4 vehicles and more is 8 %. The rate of benefits is different in each region. The aim of the tax reform concept from 2004 to 2006 was the elimination of exemptions, which the current system of vehicle taxation does not respect. State also came on one of the tools internalisation of external transport costs and obligations arising from the White Book; Plan for the single European Transport Area - Towards a competitive transport system that is resource-efficient.

5. Revenue from motor vehicles taxes and selected expenses of self-governing regions

The expenditure self- governing regions have a long-term increasing trend. The most important part of the resources for their coverage is the revenue from motor vehicle tax. In 2005, tax revenues of regions were of 23.9 % (Šimoňáková, 2011), in 2011 it was 24.4 % in 2012 already 25.1 %.

Table 1: *Planned and actual tax revenues of self- governing regions before and after fiscal decentralization (million EUR)*[31]

The plan of tax revenue before decentralization:	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Motor vehicle tax	82,9832* (2 500 SKK)	84,65* (2 550 SKK)	86,31* (2 600 SKK)	87,96* (2 650 SKK)	–	–	–	–
Total tax revenues of public authorities	352,72* (10 626 SKK)	379,51* (11 433 SKK)	411,17* (12 387 SKK)	447,16* (13 471 SKK)	–	–	–	–
The actual tax revenues after decentralization:								
Motor vehicle tax	92,92	102,62	117,76	80,15	125,82	118,61	125,09	134,62
Income tax of natural persons	295,31	334,83	359,94	428,21	403,48	332,82	386,55	401,10
Total tax revenues of public authorities	388,23	437,45	477,7	508,36	529,3	451,43	511,64	535,72
Difference of actual and projected state								
Motor vehicle tax	**9,94**	**17,97**	**31,45**	**-7,81**	–	–	–	–
Total tax revenues of public authorities	**35,51**	**57,94**	**66,53**	**61,2**	–	–	–	–

Source: elaborated by author

Tax revenue was not reduced when the road tax was replaced by the motor vehicles tax; followed the road tax and continuously increased. In 2002, tax revenue reached 76.58 million EUR (2,307 billion of SKK); in 2003 it was 78.9 million EUR (2.377 billion of SKK) and in 2004 already 81.86 million EUR (2.466 billion of SKK). The real tax revenues of self-governing regions are higher than the planned revenue before decentralization, table 1.

The motor vehicle tax is presented as a tax that is administered by public authorities. This connection of legislation has not been modified. The motor vehicle tax is the revenue source without further specified purpose and the road infrastructure is reflected on the distribution of revenue tax natural person income in the public authorities. In this context, the legitimacy of tax administration is questionable at the local level (Sporina, 2012). This is supported by the Nižňanský (2005), which states that the financing of public authorities competencies will be used revenue from motor vehicles tax by territory. Self-governing regions do not manage this tax. They do not have any vehicle register; not have any control activities in payment of that tax by businesses in the region.

At present, between experts and public road transport sector resonates an issue of earmarking of revenue from motor vehicles tax, respectively use a part of revenue for maintenance and repair regional roads II. and III. classes, which are owned by self- governing regions. The issue is caused by the differences in expenditure of self- governing regions in road infrastructure; including of significant differences in the number of kilometers of managed communications and difficult maintenance in different regions of Slovakia; that confirmed expert study (Gnap, Konečný et al., 2012).

This situation escalated after effort of implementation a prohibition of driving for trucks over 12 tons of total weight on all roads II. and III. class. Carriers point out that they have to pay the tax

[31] Planned value of tax revenues for the year 2005 to 2008 where the exchange rate was 1 EUR = 30.1260 SKK from SKK to EUR

* prognosis before the introduction of fiscal decentralization; prognosis was prepared for the period 2005-2008

to self - governing regions and they forbid operating of carriers vehicles on the roads, which are in their administration.

Collection of the tax by individual regions is determined by economic development of the region and the attractiveness of the business environment. These factors create the potential for increasing demand for road transport services, which is reflected by the growth performance of vehicles and these factors increase especially number of vehicles operated that is subject to tax in relation to income from motor vehicles tax. The increase in tax collection is caused by the increasing number of taxpayers of motor vehicles tax and no by growth of the average tax rates. After adjustment of the tax from a variable number of taxpayers, the collection of taxes should have a declining trend, table 2.

Carriers for payment of motor vehicles tax to the budgets of self-governing regions expect the possibility of usage of good and maintained road infrastructure mainly in national transport for the distribution of goods at regional and local level in return.

The share of ordinary expenditures of regions on roads (€ per km) reaches across regions significantly different values. Expenditures of regions into the road infrastructure are markedly limited by different length of managed road infrastructure. The smallest length of infrastructure is managed by the self – governing region of Bratislava. This situation has been typical since 2005 when motor vehicles tax was introduced, see table 3.

Table 2: *Development of characteristics related to the motor vehicles tax*[33]

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Taxpayers									
Number of taxpayers for motor vehicles tax	172735	206 535	236 091	261 506	296 828	322 295	348 638	358 468	368 573
The growth rate of the number of taxpayers (-)	1,000	1,196	1,367	1,514	1,718	1,866	2,018	2,075	2,134
Tax rates									
The growth rate of average tax rates (-)	1,000	1,007	1,036	1,115	1,122	1,122	1,234	1,250	1,259
Tax collection									
Motor vehicles tax collection in individual years (mil. eur)	92,92	102,62	117,76	80,15	125,82	118,61	125,09	134,62	141,6
The growth rate of tax collection (-)	1,000	1,104	1,267	0,863	1,354	1,276	1,346	1,449	1,524
The growth rate of tax collection adjusted by the growth in the number of taxpayers of motor vehicles tax	1,000	0,924	0,927	0,570	0,788	0,684	0,667	0,698	0,714

Source: elaborated by author

[33] The table does not include the development of tax rates for each year in absolute terms because of the differences in tax calculation for individual groups of vehicles.

Table 3: *Tax revenue and ordinary expenditures of regions on public transport and roads in 2012*

Region	Tax revenue (€)			Ordinary expenditures on public transport and roads (€)			Roads owned by the region (km)	Ordinary expenditures on 1 km of roads (€ per km)
	Personal entity income tax	Motor vehicles tax	Overall	Ordinary expenditures on public transport	Ordinary expenditures on communications	Ordinary expenditures on public transport and communications overall		
BA	32 416 385	33 346 130	65 762 515	8 034 381	8 273 593	16 307 974	564	14 770
BB	59 831 658	12 619 602	72 451 260	19 285 807	11 575 182	30 860 989	2 463	4 700
KE	55 395 826	12 296 526	67 692 349	15 954 988	12 292 391	28 247 379	2 007	6 125
NR	53 950 987	18 026 543	71 977 530	15 626 125	11 098 223	26 724 348	2 041	5 438
PO	63 702 677	13 839 598	77 542 275	20 375 518	14 929 734	35 305 252	2 445	6 106
TN	44 204 417	12 917 533	57 121 950	16 434 005	9 165 033	25 599 038	1 490	6 151
TT	40 904 048	15 285 484	56 189 532	11 568 017	8 113 019	19 681 036	1 593	5 093
ZA	50 696 234	16 293 291	66 989 525	15 146 207	7 403 941	22 550 148	1 448	5 113

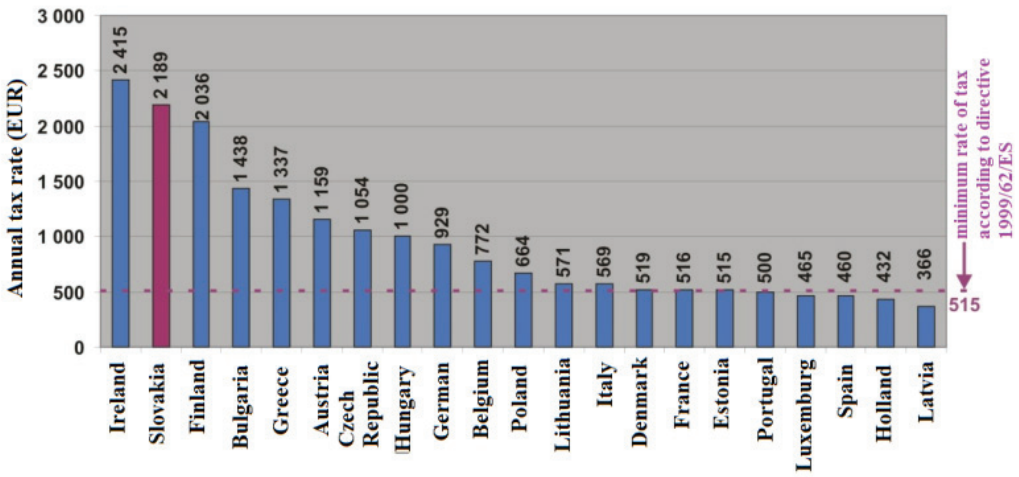
Source: elaborated by author

The share of road freight and bus transport on tax collection is crucial since along with trailers it usually makes up for more than 70 % of the tax collection.

6. Reasons and unification options for motor vehicles tax rates in Slovakia

The revenue from the motor vehicles tax is an income for the budget of self – governing region in which territory the vehicle is registered. The solution may be an enforcement of the obligation for regional vehicle registration based on the place of use of motor vehicles for business purposes.

Such a solution has not been enforced yet. Risks defined by the Ministry of Finance of the Slovak Republic before transferring tax powers onto self-governing regions in 2004 were confirmed. The biggest disparities in the tax collection from motor vehicles are between the self-governing region of Bratislava and other self-governing regions. These contrasts are caused not only by the differences in tax rates, but also by the number of taxpayers and tax subjects. This situation encourages efforts to design and implement an uniform system for motor vehicles tax collection with uniform rates and criteria for redistribution of revenue between the self-governing regions similarly to the principles used in shared taxes of the personal entity income tax. This would result in the elimination of existing differences in the system of motor vehicle taxation. The redistribution system of motor vehicles tax revenue must comply with the financial demands of different self-governing regions while securing activities such as suburban bus transport services, management and maintenance of II. and III. class roads, regional educational system, regional health service, social issues and culture (Kozovský et al., 2009). The interannual growth of tax revenues from the motor vehicles tax in Slovakia is ensured by annual growth of tax rates, but mainly by an annual growth in number of taxpayers. The slowdown of growth in the number of taxpayers due to the slowdown in economic growth may jeopardize the tax revenues of self – governing regions. The discrepancy between the sources of public budgets and the need for these resources can be solved by extension of tax and contribution bases (Šikula et al., 2008). Vehicles are the base in motor vehicles tax. Extending the scope of taxation on all registered vehicles, regardless of their intended use either for business or private purposes promotes securing resources for budgets of self-governing regions. Differences in the number of registered and taxable vehicles are increasing in Slovakia. Taxation of all the vehicles registered, including passenger automobiles is applied for example in Bulgaria, Belgium, Finland, France, Greece, Germany and Portugal. Extending the scope of taxation may create space for a reduction in the tax rates currently applied in the Slovak Republic. These are among the highest in Europe. They are four times higher than the recommended minimum rate level set in EU legislation, figure 2.



Source: elaborated by author

Figure 2: *The annual tax rates for articulated vehicle with a gross weight of 40 tones in selected EU countries in 2012*

After the introduction of electronic toll system charges for the use of road infrastructure a reduction in the rates of the motor vehicles tax occurred in selected European countries because of the weakened impact on the expenses of national road carriers, for example in Germany. An electronic toll was introduced in Slovakia on 1 January 2010, but the reduction of motor vehicles tax rates did not occur. The tax rate from 2009 remained in 2010. However, in the following years, they grew again. The condition for the unification of tax rates by the self-governing regions is to ensure a minimum level of tax revenue at the current level.

Table 4 contains alternative results of modeling tax rates for individual categories of taxable commercial vehicles in the Slovak Republic. It concerns the change in the rate for selecting more environmentally friendly vehicles, or non-ecological vehicles in respect to the base tax rate. Accurate data for the model could be obtained from the toll operator in Slovakia. It is due to the fact that the on-board units are required on all public roads in Slovakia for trucks with a gross weight over 3,5 tones and buses[34].

Table 4: *Alternative results of modeling tax rates for individual categories of taxable commercial vehicles in relation to the basic tax rate*

Variant	Basic tax rate	Tax rate for Euro 3 vehicles	Tax rate for Euro 4 (or more) vehicles	Tax rate for vehicles 1st time registered before 1990
I.	100 %	- 5 %	- 10 %	+ 0 %
II	100 %	- 7,5 %	- 15 %	+ 0 %
III	100 %	- 10 %	- 20 %	+ 5 %
IV.	100 %	- 12,5 %	- 25 %	+ 15 %
V.	100 %	- 15 %	- 30 %	+ 20 %
VI.	100 %	- 20 %	- 40 %	+ 35 %
VII.	100 %	- 25 %	- 50 %	+ 50 %

Source: elaborated by author

The proposed gradation of uniform tax rates is based on the gradation of tax rates applied for example in the Czech Republic, where it proved its worth in practice. Suggestions for the Slovak Republic respect local characteristics (structure of the vehicle fleet, principles of taxation). The

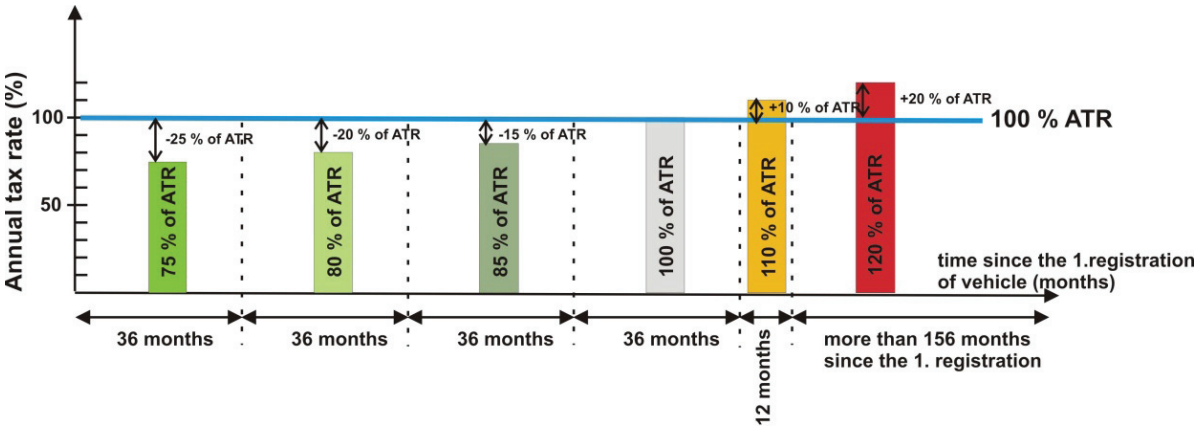
[34] The finding within the outcomes of Centre of excellence for systems and services of intelligent transport project, ITMS project code 26220120028

proposed uniform tax rates set at ecological principle would ensure tax revenues from motor vehicles tax at least at current level. Tax revenues from motor vehicles tax should continue to serve self-governing regions to finance activities related to their competencies. The criteria for their objective redistribution between regions were also proposed in the study by authors (Gnap, Konečný et al., 2012*)*.

7. Conclusion

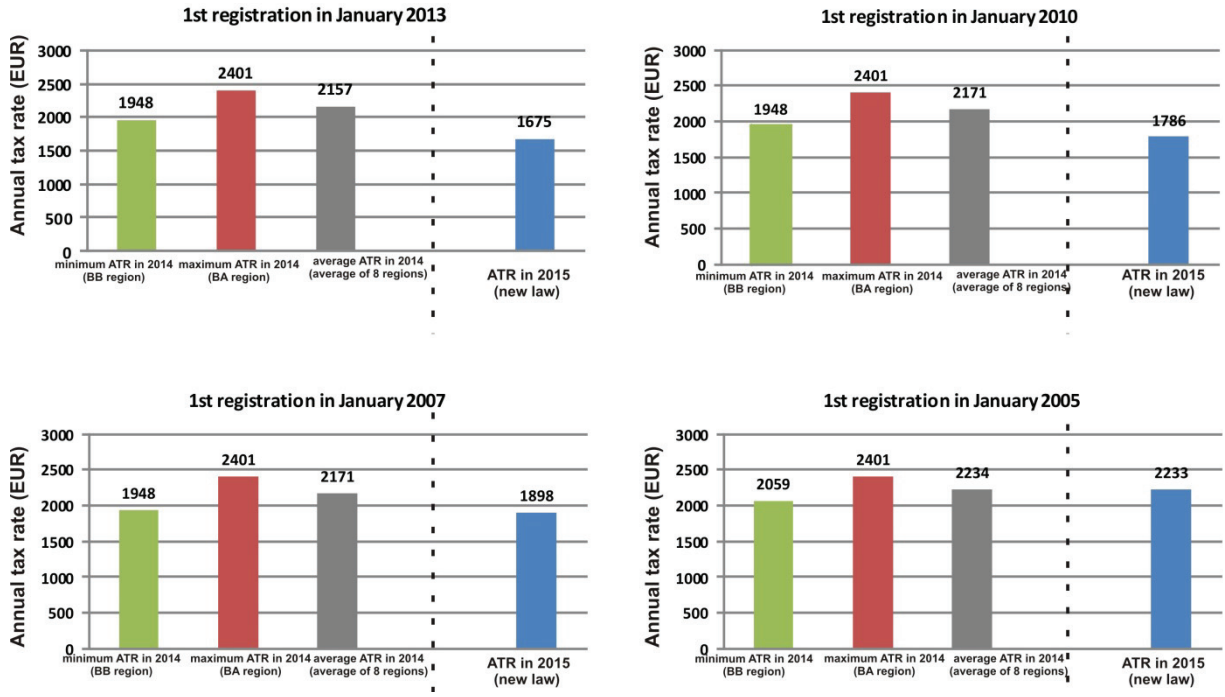
Implemented fiscal decentralization in the Slovak Republic does not allow to achieve the objectives and principles of the tax reform concept in the motor vehicles tax area. Filling of the budgets of self – governing regions and financing their activities are also directly determined by the funds raised from motor vehicles tax. The tax rate as well as the range of exemptions is in the exclusive competency of self-governing regions. This negates the possibility to approximate the rates of motor vehicles tax to a level comparable with the recommended minimum tax rates (according to Directive 1999/62 / EC on the charging of heavy goods vehicles for the use of certain infrastructures) or with the average tax rate in European Union countries. Frequent changes in tax rates well-grounded by the competency of self-governing regions create a climate of uncertainty in the area of vehicle taxation for the future. This uncertainty is multiplied by the increase in tax rates. The time of economic and technical life of road transport vehicles is significantly longer compared to the time of application of unchanged tax rates in specific regions. The solution is centrally determined tax rates with exactly defined criteria for its redistribution among self-governing regions.

Actually, revenue from the motor vehicles tax does not directly grow thanks to the fiscal decentralization. Fiscal decentralization provided a tool for self-governing regions to increase tax rates of vehicles. As a result, tax revenues of self-governing regions currently grow. The competence to impose a motor vehicles tax and to set tax rates by self-governing authorities at regional level may lead to a failure in achieving goals at the national level, for example in reducing environmental impacts and energy demands in the transport sector.



Source: elaborated by author

Figure 3: *The annual tax rates (ATR) and time differentiation of ATR based on the time of the 1st registration of vehicle according new law on motor vehicle tax*



Source: elaborated by author

Figure 4: *The comparison of ATR for semi-trailer truck in 2014 and 2015 (new law) in the Slovak Republic*

The results of expert studies by the authors (Gnap, Konečný et al., 2007, 2010, 2012) were available for the preparation of the draft law on the motor vehicles tax from the position of the Ministry of Finance of the Slovak Republic. The aim of the proposal was to tax motor vehicles more fairly. Motor vehicles tax rates for 2015 were reduced and consolidated at the level of the average rates set throughout the self – governing regions in 2014. The law is effective from 1 January 2015. The figure 3 depicts new annual tax rates and their time differentiation based on the time of the 1st registration of vehicle according to new Law no. 361/2014 collection of laws, about motor vehicle tax. The figure 4 includes comparison between annual tax rates of motor vehicle tax in the Slovak Republic in 2014 and 2015 for semi-trailer truck.

The research activities and results of studies (Gnap, Konečný et al., 2007, 2010, 2012) were used for changing and improvement of legislative on motor vehicle taxation in the Slovak Republic.

8. Acknowledgements

This paper has been developed under the support of project: MŠVVŠ SR - VEGA č. 1/0320/14 POLIAK, M.: Road Safety Improvement through Promoting Public Passenger Transport

References

1. Aristovnik, A. (2012) Fiscal decentralization in Eastern Europe, *a twenty-year perspective. Munich Personal RePEc Archive.*
2. Barbour, K. A., (2009) The Effects of Motor Vehicle Wealth Taxes on Households´ Vehicle Purchase Decisions. *Journal of Economics and Economic Education Research*, Vol. 10. (No.3.). ISSN 1533-3604
3. Daňové riaditeľstvo SR. (2004) *Výročná správa o činnosti daňových orgánov za rok 2004.*
4. Feld, L.; et al. (2003) *Decentralized taxation and the size of government: Evidence from Swiss States and local governments*, CESifo Working Paper 1087.
5. Gnap, J. (2006) *Kalkulácia vlastných nákladov a tvorba ceny v cestnej deprave.* Žilina:

EDIS – vydavateľstvo Žilinskej univerzity. Žilina, 2006. ISBN 80-8070-608-5.
6. Gnap, J. ; KONEČNÝ, V et al. (2007) *Daň z motorových vozidiel a environmentálna prijateľnosť vozidiel cestnej dopravy v SR*. Žilina: Žilinská univerzita v Žiline, 2007.
7. Gnap, J. et al. (2008) *Fiškálna decentralizácia a zmeny v legislatíve SR a EÚ a jej vplyv na financovanie a kvalitu hromadnej osobnej dopravy v SR*. Žilina: Žilinská univerzita v Žiline, 2008, project VEGA č.1/3786/06. 2008
8. Gnap, J. ; Konečný, V. et al. (2010) *Daň z motorových vozidiel v SR*. Žilina: Žilinská univerzita v Žiline, 2010
9. Gnap. J. ; Konečný, V. et al. (2012) *Daň z motorových vozidiel v SR*. Žilina: Žilinská univerzita v Žiline, 2012
10. Greven, M. (2011) Tax Guide 2011. *ACEA - European Automobile Manufacturer's Association.*
11. Greven, M. (2012) Tax Guide 2012. *ACEA - European Automobile Manufacturer's Association.*
12. Ministerstvo financií SR (2005) *Koncepcia daňovej reformy pre roky 2004-2006*.
13. Konečný, V.: Daň z motorových vozidiel. *Truck and Business*. 2013. Vol. 6 (No.2.) pp. 32-33. ISSN 1337-897X
14. Kozovský, D. (2007) Fiškálna decentralizácia a jej vplyv na vybrané makroekonomické indikátory. *Ekonomický časopis,* Vol. 54 (No.10.) pp. 1037-1052. ISSN 0013-3035
15. Kozovský, D. – Žárska, E. (2009): *Miera decentralizácie a rozpočty územných samospráv s aplikáciou na slovenské podmienky.* Katedra veřejných financí, Vysoká škola ekonomická v Praze, apríl 2009, 21 s.
16. Královenský, J. et al. (2008) *Ekonomika cestnej a mestskej dopravy*. Žilina: EDIS – vydavateľstvo Žilinskej univerzity. Žilina, 2008. ISBN 978-80-8070-831-5
17. Majerský, R. (2004) *The Process of Fiscal Decentralization*. State Budget Department, Ministry of finance Slovak Republic.
18. Masaryk, P. (2014) Ako využívame výnos vybranej dane z motorových vozidiel. *Kilometer: informačný spravodajca Združenia cestných dopravcov Slovenskej republiky*, Vol. 22, (No.6.) pp. 16-17, ISSN 1335-9894
19. Neupauerová, Z. (2008) Regionálne rozdiely ako možné riziko fiškálnej decentralizácie. In: *Financie a riziko, zborník príspevkov z X. ročníka medzinárodnej vedeckej konferencie*. Bratislava, Vydavateľstvo EKONÓM.
20. Nižňanský, V. (2005) *Decentralizácia na Slovensku: bilancia nekonečného príbehu 1995-2005*. Považská tlačiareň. 2006. ISBN 80-7179-748-0.
21. Nižňanský, V. – Valentovič, M. (2002) *Financovanie samosprávy VÚC od roku 2004*. M.E.S.A. 10. Bratislava. 2002.
22. Oates, W. E. (1972) *Fiscal federalism*. New York: Harcourt Brace Jovanovich.
23. OECD (2012) Consumption Tax Trends 2010. VAT/GST and Excise Rates, Trends and Administration Issues. *Chapter 6 – Taxing Vehicles*. 2012. ISBN 978-92-64-18218-9
24. Pétrová, R. (2007) Fiškálna decentralizácia a jej vplyv na výšku nákladov miestnych Samosprávnych celkov. *In. Zborník príspevkov z 12. medzinárodnej konferencie „Theoretical and Practical Aspects of Public Finance*. Vysoká škola ekonomická v Prahe. Praha 2007. ISBN 80-245-1032-4.
25. Rodríguez-Pose, A. – Krøijer, A. (2009) *Fiscal Decentralization and Economic Growth in Central and Eastern Europe*. LEOS Paper No. 12/2009. London School of Economics. London, 2009.
26. Sporina, J. (2012) *Zdaňovanie motorových vozidiel*. Inštitút finančnej politiky MF SR. 2012.
27. Šikula, M. et al. (2008) *Dlhodobá vízia rozvoja slovenskej spoločnosti*. Ekonomický ústav Slovenskej akadémie vied. Bratislava. 2008. ISBN 978-80-7144-168-7

28. Šimoňáková, E. (2011) Financovanie samosprávnych krajov SR, *In.: Zborník z konferencie: Združenie SK8 a Stála konferencia organizácií tretieho sektora Slovenskej republiky*, Trnava, 27.10.2011, Úrad Trnavského samosprávneho kraja.
29. Štatistický úrad SR. (2011) *Ročenka dopravy, pôšt a telekomunikácií SR 2011*. ISBN 978-80-8121-091-4
30. Štatistický úrad SR. (2013) *Ročenka dopravy, pôšt a telekomunikácií SR 2013*. ISBN 978-80-8121-255-0

EFFECTS OF TFP SHOCK ON GDP, EXPORT AND IMPORT IN CASE OF BOSNIA AND HERZEGOVINA

Nikolina Bošnjak, ma[35]*;*

Matea Zlatković, ma[36]

Abstract

It is estimated that there has been stagnation or even a significant slowdown in economic growth in the countries of Southeast Europe, during 2014. The average growth of the regional economy in the amount of 0.2% is insufficient to improve the standard of living or reducing high unemployment rates. According to the forecast of the World Bank, the South East European countries in 2015, on average, expect gross domestic product (GDP) growth of 1.3 %, and among them will be a big difference, as there were in 2014. It is also indicated that the external demand will remain a key driver of growth, and suitable monetary policy in the euro zone should help countries of the region in increasing their exports. The foreign trade balance is one of the most important economic indicators of the country that shows the level of competitiveness of its private sector, as well as the level of realized added value in manufacturing. In the case of Bosnia and Herzegovina, this indicator constantly shows a deficit as a result of the structure of traded products. Mainly exported products are lower added value, while the structure of imports shows that the imported goods are more added values. As a negative foreign trade balance is one of the main obstacles to economic growth in developing countries, it is necessary to work on the development of existing and new export products in Bosnia and Herzegovina and perform adequate promotion of exports, with the support of all relevant state institutions. That is why in this paper we will try to examine relationships among export, import and GDP as main indicator of growth, and responses of all three variables on positive Total productivity shock on production (GDP). In analysis are used Vector auto-regression model and Structural vector error correction model. VAR is used because it well describes the time dependence among lagged variables, and SVEC because it beside time dependence describes contemporaneous relations also. After specification of models which best describe our data we impose a Total factor productivity shock on variables, and then observe reactions of variables - Impulse response functions.We also observe Implse response functions under assumptions of Export and Import shock. The results suggest that there are relationships between imports, exports and GDP. The single variable shock will be transmited through the system and have effect on other two variables, too. Based on these Impulse response functions and shock transmission we conclude, give recommendations to a policy planner and indications for further research.

Keywords: *foreign trade balance, gross domestic product, economic growth, Vector auto-regression model,Structural vector error correction model*

[35]The Faculty of Economics, University of Banja Luka, MajkeJugovića 4, 78000 Banja Luka, E-mail: nikolina.bosnjak@efbl.org

[36]The Faculty of Economics, University of Banja Luka,MajkeJugovića 4, 78000 Banja Luka, E-mail: matea.zlatkovic@efbl.org

1. Introduction

One of the main aspects of globalization considers the process of integration of national economies through international trade, which plays a key role in the economic development of countries. Foreign trade based on the competitive advantages of certain national economy leads to increase in production, consumption and welfare through efficient allocation of resources and appropriate structural changes. Significant number of theoretical analysis and empirical researches suggest a strong relation between growth of GDP and the openness of the national economy, which can be expressed as: the share of exports in GDP, the share of imports in GDP or as a share of exports and imports in GDP. Easier capital inflow, arising of new ideas and innovations as well as the import of new technologies lead to an increase in productivity of domestic producers, higher quality and cheaper production, increased employment and the growth of exports.

European Union has one of the main roles in international trade because it generates about 25% of the world's wealth (measured based onGDP) and it is one of the world's largest exporter and importer, and at the same time, even though it only inhabitesapproximately7% of the world population. Its international trade balance recordes year after year suficit in trade in goods and services. The power of the European Union lies in the joint participation of its members in a single market allowing the free movement of goods, services, people and capital. The experiences of EU countries have indicated a significant relation betweneconomic openness and productivity growth.

The EU supports developing countries in their integration into the mainstream of international trade by providing them with easier access to its market and ensuringing preferential tariff rates. Benefits are intended for the least developed countries with low and medium-low income. The main obstacle for economy growth of these countries presents a negative trade balance which indicates necessity for support of all relevant government institutions in the development of existing and new export products.

Bosnia and Herzegovina like others Western Balkan countries recordes a trade deficit in the past years. Since civil war in Bosnia and Herzegovina ended in 1995 there was a constant growth in GDP and big amounts of money were invested in reconstruction and development. Nevertheless, Bosnia and Herzegovina is today one of the poorest countries in Europe.

Trade liberalization of Bosnia and Herzegovina and opening of markets were conducted according to export based development strategy to Bosnia and Herzegovina after the civil war ended. The state is no longer in position to protect its market and industry from import so foreign trade becomes one of the main factors of growth. In order to achieve and keep satisfying level of economic growth Bosnia and Herzegovina needs to strengthen its product’s competitiveness on international market through capital and technological investments.

There are many limitations to the growth of Bosnia and Herzegovina, and one of them is domestic consumption.

This high level of domestic consumption is a main cause of negative gross domestic saving rate during the last 21 years. In the period 1994 – 2005 annual average gross saving rate was around -25,9%. Because of world economic crises and private consumption decline it increased sharply in 2006, so in period 2006 – 2013 annual average rate was around -5,025%,according to World Bank data. This negative gross saving rate created a growth of public debt and left no space for Bosnia and Herzegovina’s domestic investments.

Main reason that led to negative gross saving rate is negative net trade balance, which together with investments forms gross domestic savings. Net trade balance had doubled-jumped in 1996 and after that was relatively constant till 2006 drop caused by world crises and consumption decrease. Although share of net trade balance in GDP has dropped from 71% in 1994 to 23,26% in 2013 it still represents a major problem for undeveloped economy of Bosnia and Herzegovina and it is a main source of macroeconomic instability.

Trade of Bosnia and Herzegovina is characterized by a significant dependence on energy exports, food, medicine, machinery, textile, etc. Bosnia and Herzegovina mostly exports base metals, wood and its products, electricity, footwear, machinery and so on. In 2014, its trade deficit

was 7:51 billion, of which the largest deficit was recorded in the exchange of products of mineral origin, oil and oil derivates, in amount of 18.1 billion BAM. The trade deficit in agricultural activities and food industry was 10.2 billion BAM. The coverage of import by export was about 50% in the previous period.

Macroeconomic growth model of Bosnia and Herzegovina is characterized by the presence of a currency board or fixed exchange rate. Thus, it is applied fairly restrictive monetary and fiscal policy that limits the free capital flow. Consequently, one of the proposals for improving the growth of the country includes implementation of strategies of substitute import for domestic production that would, in the case of Bosnia and Herzegovina, refer to the production of energy, food and water. However, it proved to be an unsucessful strategy in the less developed and developing countries due to the impossibility of adequate positioning in the global market. This policy of protectionism in transition countries such as Bosnia and Herzegovina, the policy of protecting domestic production, is not efficient solution because of the lack of satisfying economy of scale. The growth model of Bosnia and Herzegovina should be based on the export strategy or the strategy that is focused on the growth of exports and foreign direct investment as a possible form of sustainable indebt, having as base of the growth investments in the development of timber and furniture industry, metal processing industry and electricity generation.

Having in mind the previous researches on the impact of international trade on economic growth of developing countries, in this paper we will, on the base of relevant data for Bosnia and Herzegovina as one of the developing countries, show the interdependence between GDP as the main indicator of economic growth, and import and export, as parts of the net trade balance, as well as the impact of Total Factor Productivity[37] as a source of economic growth, on these variables. We assume that there is a positive correlation between the stated variables. To check the hypotheses we use econometric methods.

We observe data on GDP, export and import in Bosnia and Herzegovina from 1994 to 2014, test variable stationarity and use them to estimate Vector autoregressive model. Then we estimate Vector auto-regression model that describes our data, and then imposing restrictions we will obtain Structural vector error correction model specification.

At the end we analyse impulse response functions of our variables under assumption of Total factor productivity shock.

2. Literature review

Numerous researches and studies in the field of international economics confirm the interdependence of foreign trade and economic growth. It is estimated that the liberalized trading system significantly more contributes to GDP growth rates (GDP) than other systems (Krueger, 1973).

Some economists are using econometric models to present a positive correlation between exports and gross domestic product (Michalopulos and Jay, 1973). According to their research, the increase in exports leads to productivity growth (Bonelli, 1992; .Haddad et al, 1996; Weinhold and Rauch, 1997 and Sjoeholm, 1999), because an export-oriented companies are adopting new technologies so they would be competitive on foreign markets (Balassa, 1978; Krueger, 1980; Nishimizu and Robinson, 1982). Conversely, the growth of productivity and competitiveness of the quality and price of the product leads to an increase in exports (Clerides et al, 1998;. Pavčnik, 2000). Many studies show that the obtained results depend on the selected sample and the test period.

The survey conducted on a sample of 15 Asian countries has shown that generalization conclusions are not possible and that exports could be considered as a generator of economic

[37] The Total Factor Productivity (TFP) is a variable that accounts for the growth of total output not coused by traditional growth factors like labor and input growth. The TFP is measured as residual since it cannot be measured directly. It is usually measured as Solow residual and accounts for all other factors that can lead to output growth except labour and inputs growth.

growth only if it contributes to the capital inflow, the growth of productivity of production factors and technological advances (Islam, 1998).

The mutual dependence of imports and productivity is more complex for consideration. In perfect competition, an increase in imports of consumer goods leads to an increase in productivity of domestic producers because that, viewed in the long term, encourage innovations, investment in new technology and restructuring in order to strengthen the competitive position in regard to the foreign companies (Haddad et al., 1996). In case of imperfect competition there isa investmentreduction and declining productivity (Tybout, 2000).

The impact of increased productivity on the import manifests itself through economic growth and increased revenues, which leads to a rise in imports. Meanwhile, there is a imports reduction due to the increase in productivity of the domestic industry.

The empirical evidence for the US (Lawrence, 1999) and the Japanese market (Lawrence and Weinstein, 1999) have shown the impact of imports on TFP growth, caused primarily due to the competitive effect between domestic and foreign producers. A similar study was done for the Brazilian market (Muendler, 2004).

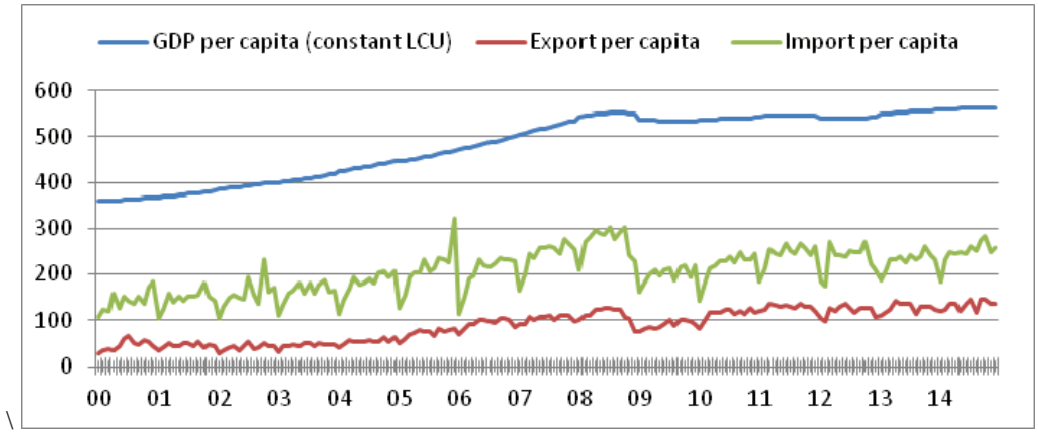
Literature review reveals the existence of a large number of discussions and research studies on the link between international trade and economic growth. Majority part of research studies relates to the causal connection between exports and economic growth with the results largely dependent on the circumstances of the tests. The causal connection between imports and economic growth is mainly theoretical analyzed but has not been yet adequately tested empirically.

We believe that our research in the case of Bosnia and Herzegovina will contribute to the general debate on the discussed topic.

3. Empirical Analysis of the Relationship between Trade and Productivity

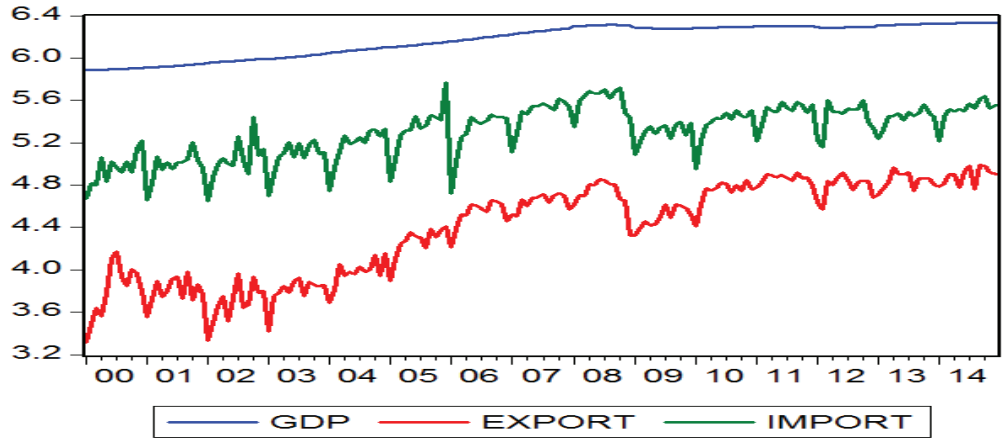
3.1. Data description

Data used in this analysis are taken from Central Bank of Bosnia and Herzegovina and World Bank database. Originally we had World Bank's annual data on GDP per capita with constant prices from 2000 until 2014. We adjusted their frequency to monthly using Eviews tools in order to match it with export and import data frequency and to obtain sufficient length of time series. Export and import data for the same period are taken from Central Bank of Bosnia and Herzegovina database and their original frequency is monthly but they were in current prices so we had to adjust them using Consumer Prices Index. So our time series of GDP, Export and Import per capita consists of 180 observations, all expressed in constant prices, local currency and in per capita terms.



Graph 1 – BiH from 2000 to 2014 GDP, export and import per capita in levels

Since VAR captures only linear relations we had to linearize data using logarithm of level data, and further analysis is done with logarithm of level data.

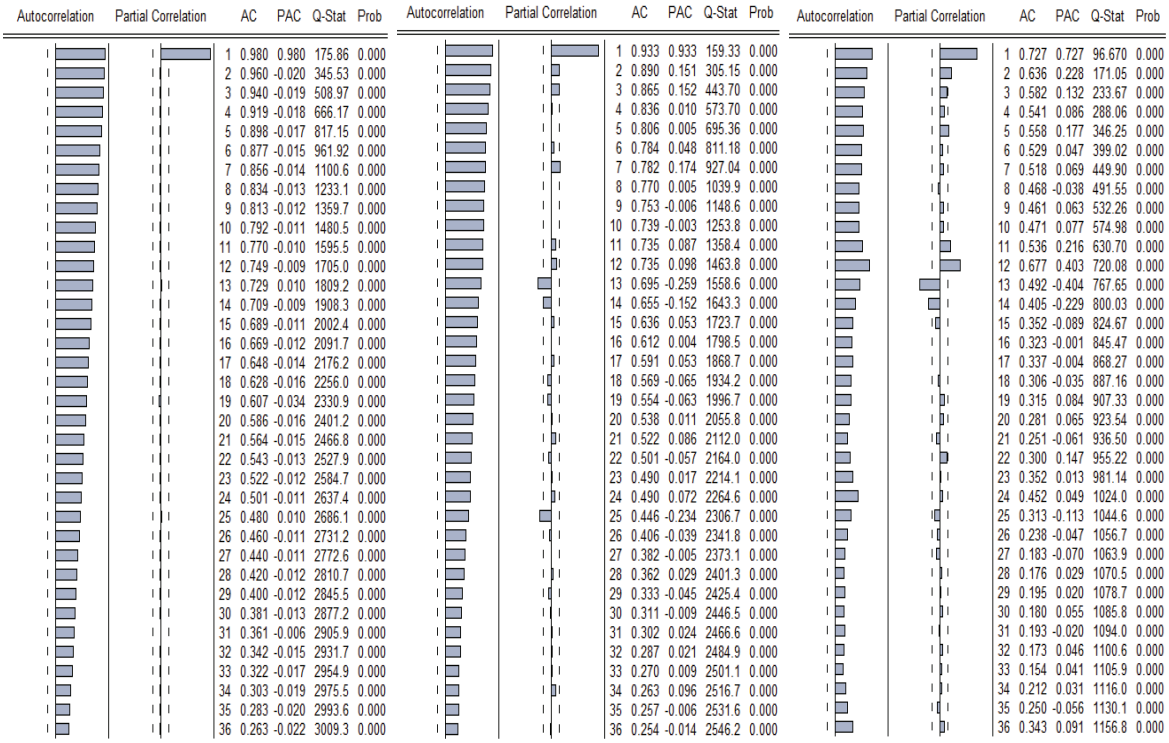


Graph 2 – Logarithm of level data

3.2. Series stationarity

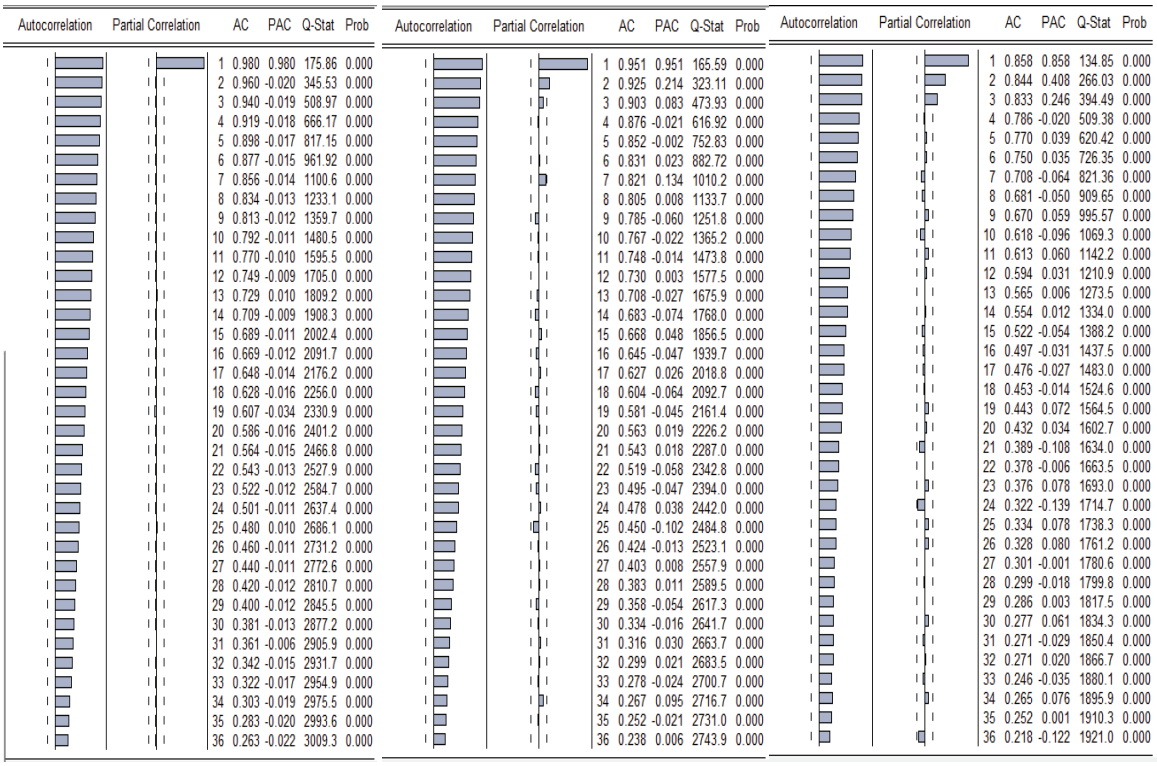
The time series is called stationary if it has time-invariant first and second moments that are mean and covariance. That means that all members of a stationary stochastic process have the same constant mean and that covariance and variance do not depend on time (Lütkepohl, H. and Kräitzig, M., 2004).

Good indicators of time series stationarity are autocorrelation and partial autocorrelation function. On Graph 3 we have ACF and PACF given for each variable in our analysis (graphs are obtained using software EViews5).



Graph 3 – ACF and PACF of GDP, export and import

Observing autocorrelation functions we can suppose that all three time series are non-stationary in levels, also all probabilities equal to zero suggest us to refuse the null hypothesis of stationarity. Partial autocorrelation function provides us information about order of integration, where we can suppose that all variables are I(1) processes. Also, the shape of ACF function suggests us that there is strong seasonal trend present in Import and Export. Seasonal effect is not present in GDP data, since HP filter used for decomposition of frequencies of original data already adjusts for seasonal effects. Seasonal effects that are present in other two variables, Import and Export, could make us problems in our further analysis and it is necessary to remove them from our data. After deseasonalizing Import and Export data our ACF and PACF of these two variables are shown on Graph 4, where we can notice that seasonal effects are removed from Export and Import ACFs. ACFs are smoothly declining for all three variables now, and there is no significant partial autocorrelation in higher lags anymore.



Graph 4 – ACF and PACF of Export and Import after deseasonalizing

Nevertheless, for making final judgment about series stationaruty it is necessary to run Augmented Dickey-Fuller (ADF) and Kwaitkowski-Philips-Schmidt-Shin (KPSS) tests.

Table 1 – Results of Unit root tests

	5% critical values	ln GDP		ln export		ln import	
		levels	1st difference	levels	1stdifference	levels	1stdifference
ADF test	**-3.437122**	-0.638518	-3.456904*	-2.016269	-13.88948*	-2.468116	-17.49367*
KPSS test	**0,146**	0.401982	0.146344	0,227907	0,023955*	0,27776	0,180073

In the Table 1 are given the results of unit root tests – obtained with software EViews 5, and 5% critical values with whom we have to compare the results. Looking at these results we can conclude that according to both tests all three variables are non-stationary at levels. For GDP and Export both tests suggest that they are stationary at first difference, while for Import ADF test suggests that it is integrated of order 1 and KPSS test suggests that integration is of order 2. In this case we will have to make decision and select an appropriate order of integration. Since the ADF test in case of Import gives us strong evidence that we should reject null hypothesis of non-stationarity for first difference, we decide to relay on ADF test. This way all tree variables are integrated of order 1, so we may proceed with analysis and model selection.

3.3. Model selection

Depending on the behavior of the observed data, their level of integration and whether there are cointegrating relations among them or not, we will choose to represent our data with VAR (Vector Auto Regression) or VEC (Vector Error Correction) Model – VECM.

VAR model captures dynamics interactions of m time series variables, and basic model of order p (VAR(p)) has the form:

$$y_t = A_1 y_{t-1} + A_2 y_{t-2} + \ldots + A_p y_{t-p} + u_t$$

where $y_t = (y_{1t}, y_{2t}, \ldots, y_{mt})$' is a set of m time series variables, A_i's are (m x m) coefficient matrices and $u_t = (u_{1t}, u_{2t}, \ldots, u_{mt})$' is unobservable error term (Lütkepohl, H. and Kräitzig, M., 2004). ut's are usually assumed to be independent stochastic vectors with $ut(0,\Sigma u)$.

For a proper representation of Data Generated Process (DGP) sometimes it is necessary to include deterministic terms into VAR model (such as intercept, linear trend term or seasonal dummy variables).

VECM gives a convenient reformulation of VAR model in terms of differences, lagged differences and levels of the process(Juselius, 2006).

With VECM formulation of VAR, the multicollinearity effect which is strongly present in time-series level data is significantly reduced. All information about long-run effects is summarized in the levels matrix (subsequently denoted Π) and interpretation of the estimates is more intuitive.

The VECM(p-1) is obtained from the levels VAR(p) form by subtracting y_{t-1} from both sides and rearranging terms.

VECM form: $\Delta y_t = \Pi y_{t-1} + \Gamma_1 \Delta y_{t-1} + \cdots + \Gamma_{p-1} \Delta y_{t-p+1} + u_t$

where $\Pi = -(IK - A1 - \cdots - Ap)$ is often called the long run part, and $\Gamma i = -(Ai+1 + \cdots + Ap)$ for $i = 1, \ldots, p-1$, which is called the short run part. Since all variables in our case are I(1), thus Δy_t does not contain stochastic trend and the only term that contains it is Πy_{t-1}. In order to fulfill our assumption that Δy_t is I(0) also Πy_{t-1} must be I(0), thus it must contain the cointegrating relations.

Cointegrating relation between two variables exists if they have common stochastic trend, or by definition: x_t and $y_t$are said to be cointegrated if there exists a parameter δ such that $u_t = y_t - \delta x_t$ is a stationary process (Sørensen,1997).

Cointegrating relation between variables can be checked examining the stationaruty of $u_t$but with tests with adjusted critical values for cointegrating relations – CADF or Philips – Perron. If VAR(p) has a unit root, than matrix Π is singular and if we suppose that its rank is rk(Π) = r than it can be written as a product of (m x n) matrices α and β, $\Pi = \alpha\beta'$ where rk(Π) = rk(α) = rk(β) = r. The rank of Π is therefore referred to as the cointegrating rankof the system, and β is a cointegration matrix, while matrix α is called loading matrix.

As it can be seen from basic form of VAR model it assumes that variables are stationary and even more important it does not captures common long term stochastic trend that may exist between

variables. If such common trend exists that means that variables are driven with same trend. This colinearity imposes us to represent our DGP with different model – VECM.

In order to check whether there are collinear relations among our variables we have to run Johansen colinearity test which requires that all variables are of same order of integration and that we know which the number of lags in our model is.

We have already checked the stationarity of our variables and concluded that they are integrated of order 1.

In order to determine the lag order of VAR process we find starting p value using rule of thumb – $p \leq T/4m$, where T is a number of observations in our data. In our case of time series with 180 observations, the rule of thumb suggests us to start with checking of information criterions from lag order 15.

Using EViews 5 software we checked information criterions for different orders of VAR process. Results are presented in Table 2.

Table 2 – Information criteria values for different orders of VAR process

Lag	LogL	LR	FPE	AIC	SC	HQ
0	381.2672	NA	2.05e-06	-4.585057	-4.528585	-4.562133
1	1076.506	1356.769	5.00e-10	-12.90310	-12.67722	-12.81141
2	1121.285	85.75888	3.24e-10	-13.33679	-12.94149*	-13.17632
3	1144.172	43.00038	2.74e-10*	-13.50512*	-12.94040	-13.27588*
4	1148.582	8.124901	2.90e-10	-13.44948	-12.71535	-13.15147
5	1153.452	8.795646	3.05e-10	-13.39942	-12.49587	-13.03264
6	1159.532	10.75873	3.16e-10	-13.36402	-12.29106	-12.92847
7	1166.113	11.40681	3.26e-10	-13.33470	-12.09232	-12.83037
8	1168.559	4.151907	3.54e-10	-13.25526	-11.84347	-12.68217
9	1171.462	4.819924	3.82e-10	-13.18136	-11.60015	-12.53949
10	1174.453	4.858105	4.13e-10	-13.10852	-11.35790	-12.39788
11	1179.300	7.696223	4.36e-10	-13.05818	-11.13814	-12.27877
12	1180.345	1.621886	4.82e-10	-12.96176	-10.87230	-12.11358
13	1208.207	42.21473	3.86e-10	-13.19038	-10.93152	-12.27343
14	1222.780	21.55144*	3.64e-10	-13.25795	-10.82966	-12.27222
15	1230.252	10.77735	3.74e-10	-13.23942	-10.64172	-12.18492

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

In this case it is necessary to decide between lag order 2, 3 and 15. Three out of five lag order information criteria suggest us to correct lag order is 3. Given this we choose that 3 is correct lag order for our time series.

Further we run Johansen cointegration test using lag order 3 that we previously obtained. Also the data analysis confirmed that there is significant constant and negligible but significant trend. The results of Johansen test with intercept, and with no trend present in data are given in Table 3.

Table 3 – Results of Johansen cointegration test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.139564	44.41722	35.19275	0.0039
At most 1	0.062263	17.96152	20.26184	0.1005
At most 2	0.037064	6.647253	9.164546	0.1463

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.139564	26.45570	22.29962	0.0124
At most 1	0.062263	11.31427	15.89210	0.2294
At most 2	0.037064	6.647253	9.164546	0.1463

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Both tests – trace and maximum eigenvalue tests suggest us that there is one cointegrating relation in our dataset. The existence of cointegration, as we already stated above, means that the right model for our data should be VECM.

3.4. VECM and SVECM specification

As we already said, since all variables are non-stationary in level, stationary in first differenece and there is cointegration among them, the correct representation of DGP is VEC Model (Vector Error Correction Model). The lag selection criteria suggested that lag order should be 3, while Johansen test indicated that there is one common trend among variables. Analyzing the data using Philips – Perron test (Sørensen,1997) we found that there is strong cointegrating relation among GDP and Import, and this will be used further in our specification of VECM and SVECM model.

The problem with VAR and VEC models is that they do not include instantaneous relations between the endogenous variables *yt.* Because of that they are called reduced form models, and it is also needed to model the contemporaneous relations so it is useful to consider a structural form of VEC model – SVEC model.

SVECM form: $A\Delta y_t = \Pi^* y_{t-1} + \Gamma_1^* \Delta y_{t-1} + \cdots + \Gamma^*_{p-1} \Delta y_{t-p+1} + B\varepsilon_t,$

where the matrix A contains instantaneous relations between left-hand side variables and relationship with reduced form VECM is given with:

$$\Gamma_j^* = A^{-1}\Gamma_j^*, j\ (j = 1,\dots, p-1), \Pi = A^{-1}\Pi^* \text{ and } u_t = A^{-1}B\varepsilon_t.$$

To identify parameters of structural form VECM we have to impose restrictions on the parameter matrices. There are different approaches that can be used for imposing restrictions, and here we will use common trends approach which requires to place:

- m^2 restrictions on *A* matrix, setting it to be identity matrix ($A = I_m$);
- r(m-r) restrictions from cointegration and (m-r)(m-r-1)/2 long run restrictions, all imposed on matrix of long-run effects of shocks on variables and
- r(r-1)/2 restrictions to be imposed on matrix of transitory effects.

In case of our data we have to impose 3 restrictions on matrix of long-run effects, from which 2 are from cointegrating relation and one is a long run restriction.

So we use Structural VAR software to estimate our SVEC model with lag order 3, constant and trend, and one cointegrating relation.

The estimated beta matrix under assumption that output and import share same common stochastic trend is:

$$\beta' = [\ -1.5425 \quad 0 \quad 1].$$

Alpha matrix remains unrestricted and it is full matrix in both cases, and as we said we have to impose 3 restrictions on matrix of long run effects – C(1), and those restrictions, in case of output-export cointegration are placed as is shown:

$$C(1) = \begin{bmatrix} c_{11} & 0 & 0 \\ c_{21} & c_{22} & 0 \\ c_{31} & c_{32} & 0 \end{bmatrix}$$

where $c_{12} = 0$ is a long run restriction and c_{13} and c_{23} are restrictions from cointegration.

After model estimation, we have to check its robustness. The standard procedure is to check its residuals. If model is well specified the residuals should not be serially correlated. This is usually tested using Portamentou and LM test for residual uncorrelation. The results of LM test for serial uncorrelation are given in Table 4.

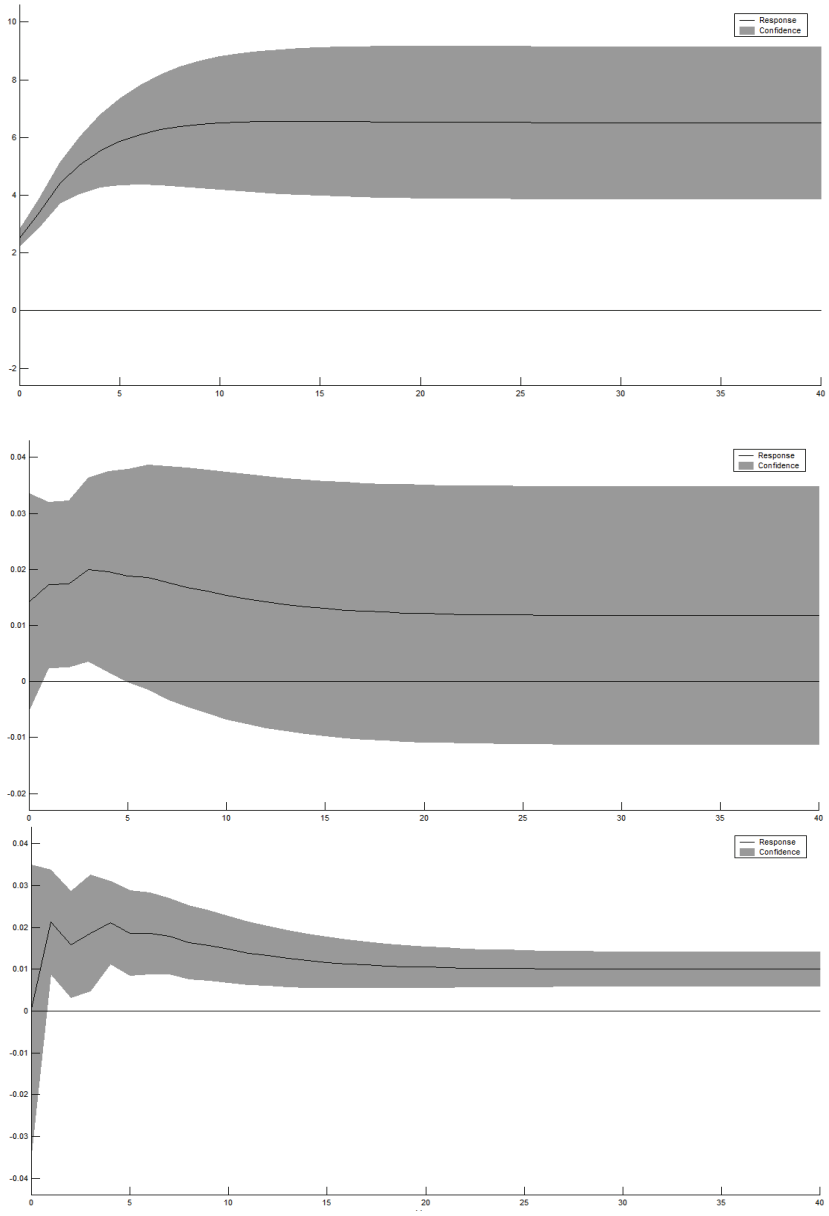
Table 4 – LM and Portamentou test results

PORTMANTEAU TEST (H0:Rh=(r1,...,rh)=0)		SERIAL CORRELATION TESTS (for restricted rank=1)	
tested order:	10	LM-type test statistic	
test statistic:	45.2230		
p-value:	0.9217	Null hypothesis:	residuals are serially uncorrelated
adjusted test statistic:	46.8529	Alternative hypothesis:	residuals follow VAR(1)
p-value:	0.8923	LM(9) = 10.4300	
degrees of freedom:	60.0000	p-value = 0.3168	

When we estimated our SVEC model we can use it to obtain Impulse Response Functions – IRFs that represent the effects of shocks on variables. We can also say that IRFs reflect responses to impulses that hit the system and their transmission over time.

On Graph 5 are shown the response functions of all three variables as a reaction on output shock - Total factor productivity shock.

Total factor productivity captures the changes in the output that cannot be explained by variations in the quantities of inputs, capital and labor. As we already said, it is usually measured by Solow residual, nd that is what we assumed in this paper, too. Intuitively, the residual reflects an upward (or downward) shift in the production function. Many factors can cause this shift, such as technological innovation, organizational and institutional changes, demand fluctuations, changes in the factors composition, external shocks, etc. (Barro and Sala-i-Martin, 2004).

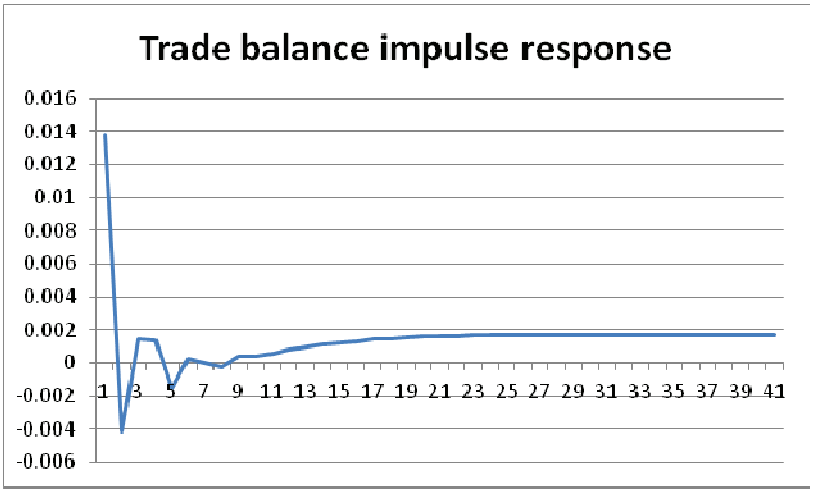


Graph 5 – IRFs of output, export and import as a response on TFP shock

From IRFs we can see that when TFP shock occurs its effects are driven through system. Output responds to shock impact and it increases and reaches peak after 6-7 periods and those effects have a constant impact on output.

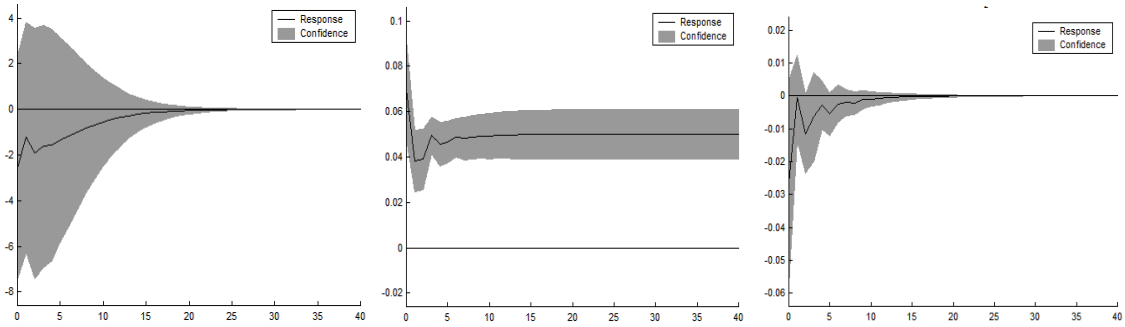
Effects of TFP shock on export and import also need some time to reach their maximum value, and after that moment they seem to be permanent.

Observing the IRFs we can conclude that sudden increase in productivity will cause growth of output through growth of GDP and export, but at the same time these positive effects will be canceled out with increase of import probably due to growth of domestic demand and consumption. In long term there will be permanent increase of consumption, while long term impact on trade balance will be positive but modest. As we can see from Graph 6, the positive TFP shock will in long term have positive impact on trade balance of approximately 0.2%.

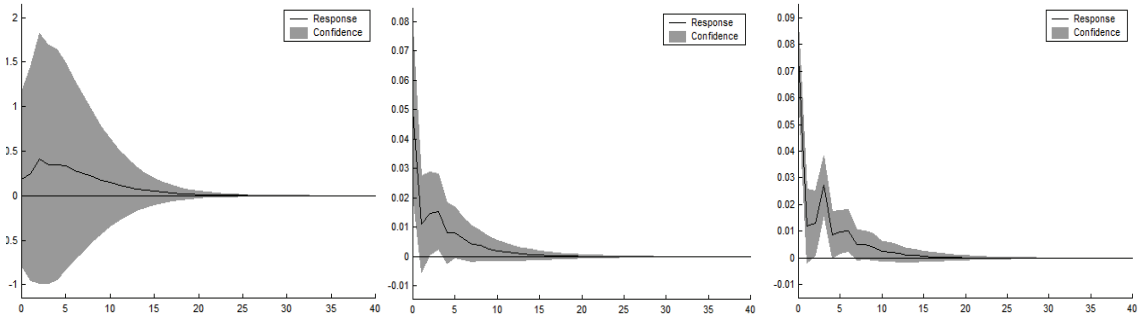


Graph 6 – IRF of trade balance under TFP shock

The effects of export and import shock on variables are shown on Graph 7 and 8.



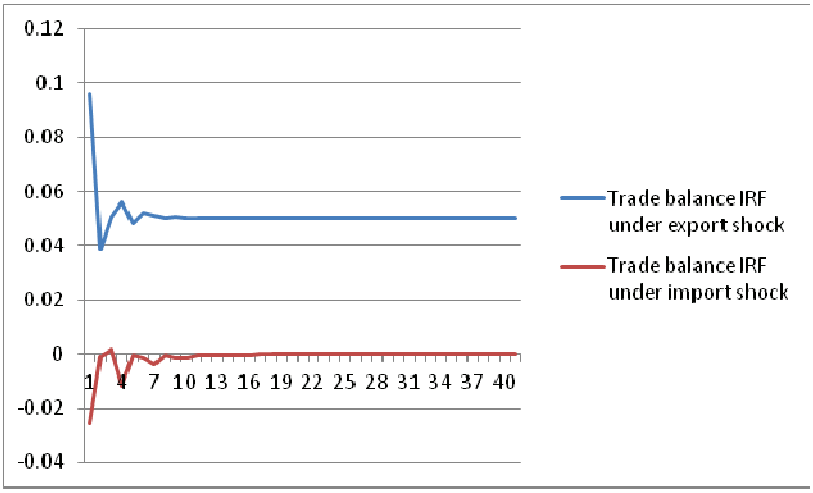
Graph 7 – IRFs of output, export and import under export shock



Graph 8 – IRFs of output, export and import under import shock

From these graphs we can see that export and import shock have only short term effects on almost all variables. The only exception is export shock which have a long term positive impact on export.

The influence of export and import shock on trade balance is more visible if we plot it separately, on Graph 9.



Graph 9 – IRF of trade balance under export and import shock

The export shock will cause a long term positive response of trade balance which at the first period will amount even 10% increase of trade balance for each 1% of export growth. After this jump, the effect of export shock on net trade balance will stay constant on level of 5%. At the same time GDP will decrease, which means that domestic saving or consumption have fallen.
Import shock will cause a short term negative response of trade balance, and after 7 periods its effect will vanish.

4. Conclusion

Bosnia and Herzegovina negative trade balance is targeted as one of main causes of macroeconomic instability. For a long period it is a topic of economic analysis and big public attention. Using VAR and SVEC models and data from Central Bank of Bosnia and Herzegovina and World Bank databases for period 2000-2014 we analyzed relationship between GDP, export and import. Special subject of our interest was a reaction of these variables to Total factor productivity shock on GDP.

The data analysis after removing the seasonal effect and logharitm transformation suggested us that all variables are non stationary in levels and stationary in first differences. Johansen test discovered the existence of one cointegrating relation, between GDP and import. So in further analysis, using this cointegrating relation we estimated SVEC model and obtained IRFs as a result.

IRF of SVEC model with GDP and export cointegration relation indicates that TFP shock on output will cause long run effects on all three variables.

Positive TFP shock on GDP will cause permanent positive effects of GDP and a long run decrease of net trade balance. Although this decrease of net trade balance is modest the overall effect on BiH economy is positive.

The net trade balance is also sensitive on export shock which will cause a significant positive response of net trade balance in long run.The problem is that there is only short run effect on GDP and that effect is negative. This means that due to export increasement there will be significant decrease in domestic consumption or saving, or both. The further analysis is needed to understand the nature of this short run effect on GDP and effect transmission through the system.

The import shock will have no long run effects on net trade balance or GDP. In short run, GDP will increase while net trade balance effect will be negative, which means that the increased import will probably cause domestic consumption growth.

The overall recommendation for economic policy planner of Bosnia and Herzegovina would be to focus on Total Factor Productivity growth, since its improvement will lead to long term growth in GDP and net trade balance stabilization. The export growth will stabilize net trade balance much faster, but it will have no effect on overall output of BiH economy.

Nevertheless, when consideting these results, we have to take into consideration that we had decomposed original annual GDP data to monthly frequency. Due to this decomposition we have probably losed some information about the underlying process. Also we have taken into consideration only three variables – GDP, Export and Import. The results would probabily be more accurate if we had used some additional variables like national saveings, consumptions, etc. These might be the suggestions for further research of this topic.

References

1. Amin, M.; Islam, A. (2014). Use of Imported Inputs and the Cost of Importing : Evidence from Developing Countries. World Bank Group, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/20361 License: CC BY 3.0 IGO. ((accessed 20.07.2015.)
2. Balassa, B. (1978). Export and economic growth. *Journal of Development Economics*. North-Holland Publishing Company. No. 5, pp. 181-189
3. Barro, R. and Sala-i-Martin, X. (2004). *Economic growth*. The MIT Press
4. B&H Directorate for Economic Planning. Ekonomskitrendovi. http://www.dep. gov.ba/dep_publikacije/ekonomski_trendovi/?id=1322 (accessed 19.07.2015.)
5. Bonelli, R. (1992). Growth and Productivity in Brazilian Industries: Impacts of Trade Orientation. *Journal of Development Economics*. No. 39, pp. 85-109
6. Central Bank of Bosnia and Herzegovina. Annual Reports. http://www.cbbh.ba/index.php?id=36&lang=en (accessed 10.07.2015.)
7. Clerides, S., Lach, S. and Tybout, J. (1998). Is Learning by Exporting Important? Micro-Dynamic Evidence from Colombia, Mexico and Morocco. *QuarterlyJournal ofEconomics*. No. 103, pp 903-947
8. Haddad, M., De Melo, J. and Horton, B. (1996). Trade Liberalization, Exports andIndustrial Performance. *In Roberts, M. J. and Tybout, J. R. (eds) Industrial*
9. Islam, M., N. (1989). Export expansion and economic growth: testing for cointegration and causality. *Applied Economics*. London, Routledge. Vol. 30., No. 3, pp. 415-424
10. Juselius, K. (2006). The Cointegrated VAR Model: Methodology and applications.*Oxford University Press*
11. Krueger, A. (1978). *Foreign Trade Regimes*. Cambridge, MA: Ballinger for NBER
12. Krueger, A. (1980). Trade Policy as an Impact to Development. *American EconomicReview*. No. 2, pp 288-292
13. Krugman, P. R. and Obstfeld, M. (2003). *International Economics: Theory and Policy*. Boston, MA: Addison Wesley.
14. Lawrence, R. Z. (1999). Does a Kick in the Pants Get You Going or Does It just Hurt? The Impact of International Competition on Technological Change in US Manufacturing. In Robert Feenstra (ed.) Globalization and Wages, Chicago:*University of Chicago Press.*
15. Lütkepohl, H. &Kräitzig, M. (2004). Applied time series econometrics. *CambridgeUniversity Press*
16. Michalopolus, C.andJay, K. (1973). Growth of export and income in the developing world:A neoclassicalview.*AID Discussion Paper.* Washington, D.C., Agency for International Development, No. 28, 1973.
17. Muendler, M. A. (2004). *Trade, Technology and Productivity: A Study ofBrazilian Manufacturers 1986-98.* CESIFO Working Paper No.1148.
18. Nishimizu, Meiko and Sherman, R. (1982),Trade Polices and Productivity Change in Semi-Industrialized Countries. *Journal of Development Economics.* No. 16, pp. 177-206.
19. Pavcnik, N. (2000). *Trade Liberalization, Exit and Productivity Improvement: Evidencefrom Chilean Plants.*NBER Working Paper No. 7852.

20. Sjoeholm, F. (1999). Exports, Imports and Productivity: Results from Indonesian Establishment Data. *World Development*, No. 27, pp. 705-715
21. Sørensen, B.E. (1997). Cointegration.*Economics*, 266.
22. Tybout, J. (2000). Manufacturing Firms in Developing Countries. *Journal of EconomicLiterature*. No. 38, pp 11-44
23. The International Study Group on Exports and Productivity. (2007). Exports and Productivity – Comparable Evidence for 14 Countries. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/7632 License: CC BY 3.0 Unported. ((accessed 20.07.2015.)
24. Weinhold, D. and Rauch, J. E. (1997). *Openness, Specialization and Productivity Growth in Less Developed Countries.*NBER Working Paper No. 6131.

CONVERGENCE OF ECONOMIC PERFORMANCE IN THE EUROPEAN UNION

Boban Stojanović, PhD[38]

MSc Zorana Kostić[39]

Abstract

The European Union consists of countries which have different economic structures, so that the process of economic, political, and social integration must be accompanied by a process of convergence. Convergence refers to the process of economic catching up with the leading countries in the process of integration. This process is based on gradualism, i.e. the gradual reduction of differences between countries. Given the multidimensional nature of the convergence process, the development capacity of member countries is influenced by a large number of economic and non-economic factors. In this paper, we analyze the economic indicators of 28 European Union member states, namely: GDP per capita, GDP growth rate, gross savings rate, total investment rate, inflation rate and total unemployment rate.

In terms of greater integration of the EU market, harmonization of levels of economic performance has become a prerequisite for overall cohesion. With the passage of time, consistency of key economic performance in the Member States contributes to increasing economic power of integration. From the perspective of economic catch-up with the developed economies, the divergence threatens to slow down or even stop the catch-up process. One of the challenges facing the member states is to reduce the large differences between the center and the periphery of the European Union. The need for reconstruction of the relationship between the center and the periphery stems from the low level of development of a large number of new-coming member countries. The most developed countries of the Union play the role of economic and political center of gravity.

The starting hypothesis of the study is that there was a process of convergence of levels of economic performance in the European Union in the period 1995-2013. The main objective of this paper is to determine the direction of convergence of key economic performance in the European Union over the last four enlargements (1995, 2004, 2007, and 2013). Using one of the methods of multivariate analysis, we will conduct a grouping of 28 countries of the European Union, according to the selected indicators (GDP per capita, GDP growth rate, gross savings rate, total investment rate, inflation rate, and total unemployment rate), and determine the existence of clusters or homogeneous entities within the group of analyzed countries. By using descriptive statistics and statistical method of linear correlation analysis, we will empirically test and verify the existence of convergence of levels of economic performance in the European Union in the period from 1995 to 2013.

Keywords: *convergence, economic performance, the European Union*

[38] Full professor, Faculty of Economics in Niš, Serbia, e-mail: dr.boban.stojanovic@gmail.com

[39] PhD Student, Fellow of the Ministry of Education, Science, and Technological Development of the Republic of Serbia, Faculty of Economics in Niš, Serbia, e-mail: zoksinis@gmail.com

Introduction

Given the fact that, in modern conditions, the importance of European integration processes is particularly emphasized, special attention should be paid to assessing the level of convergence of economic performance in the European Union. The European integration process opens up a number of opportunities for the development of national economies. With the purpose of efficient preparation of a country for the European integration processes, continuous convergence of its economic performance is needed. Furthermore, it is necessary to know the principles of economic policies and functioning of the European Union markets. Clear definition of the measures and drivers of economic catch-up with the developed countries is one of the preconditions for successful integration. In this regard, the instruments of implementation of economic harmonization must be adapted to market economies, in order to achieve progress.

The differences in the integration engineering and the effects of changes undertaken show that complete reconstruction of the economy and society implies simultaneous deep political and economic transformation. However, transformative power of the European Union is limited. The process of new enlargement of the European Union is facing a number of economic and non-economic constraints. One of the biggest limitations is a big difference in the achieved level of economic performance among individual member states. It is, therefore, of paramount importance to analyze the situation and future tendencies in the domain of economic catch-up with the leading countries in the process of integration.

The structure of the paper includes five parts. The second part of the paper presents the methodology used for evaluation of convergence of economic performance in the European Union. The third part focuses on the research results and discussion, which respectively refer to the cluster analysis, sigma convergence, absolute convergence, relative convergence, and beta convergence. The fourth part of the paper analyzes convergence within certain groups of countries in the European Union. The fifth part presents the concluding remarks.

1. Research methodology

The study has included 28 member states of the European Union. The time period of the analysis is 1995-2013, with a cross-section of data made for the years 1995, 2004, 2007, and 2013. These are the years in which new states joined the Union, which has resulted in a change in the economic power of the European Union. As a reminder, in 1995, the European Union had a total of 15 members (Germany, France, Italy, the Netherlands, Belgium, Luxembourg, the United Kingdom, Ireland, Denmark, Greece, Spain, Portugal, Finland, Sweden, and Austria). Upon the 2004 enlargement, 10 new countries joined the EU (Czech Republic, Cyprus, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia, and Slovenia). In 2007, Romania and Bulgaria joined the Union, and in 2013, at last enlargement, Croatia became the 28th member of the European Union. The third part of the paper pays special attention to an analysis of convergence within certain groups of the European Union, namely: EU6 (Germany, France, Italy, the Netherlands, Belgium, and Luxembourg), EU15 (Germany, France, Italy, the Netherlands, Belgium, Luxembourg, United Kingdom, Ireland, Denmark, Greece, Spain, Portugal, Finland, Sweden, and Austria), and EU28 (Germany, France, Italy, the Netherlands, Belgium, Luxembourg, the United Kingdom, Ireland, Denmark, Greece, Spain, Portugal, Finland, Sweden, Austria, Czech Republic, Cyprus, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia, Slovenia, Romania, Bulgaria, and Croatia).

By using cluster analysis, as a method of multivariate analysis for classification and categorization, we will perform the grouping of 28 countries of the European Union, and check the existence of clusters, or homogeneous entities, within the analyzed groups of countries. By using

statistical methods, linear correlation analysis, partial correlation analysis, and descriptive statistics, we empirically test the existence of absolute, relative, beta (β), and sigma (σ) convergence in the European Union in the period from 1995 to 2013. The study also relies on a comparative method and the method of analysis and synthesis. For the purposes of quantitative analysis, the latest available data from the database of the World Bank and the International Monetary Fund is used.

2. Research results and discussion

For the purpose of testing the convergence of economic performance in the EU countries, several types of convergence, commonly found in literature, are analyzed. This part of the paper empirically tests theoretical standpoints about absolute convergence, relative convergence, sigma convergence and beta (conditional) convergence in the case of 28 countries of the European Union in the period 1995-2013.

2.1 Cluster analysis

The research first focuses on cluster analysis, as a method of multivariate analysis for the classification and categorization of EU member states, in respect of their similarity or dissimilarity, according to some indicators. The goal of cluster analysis is to determine homogeneous groups, or clusters, within the analyzed groups of countries. The grouping of EU countries is done based on the following variables: GDP growth rate (%), savings rate (% of GDP), investment rate (% of GDP), inflation rate (%, ICP), and unemployment rate. The objects of cluster analysis are members of the European Union.

For the application of cluster analysis, it is necessary that all variables are on the same scale; otherwise, it is necessary to carry out some form of standardization of results. At this point, the Z-score will be used (transformation of results into z values). As a measure of similarity/distance between countries, the Euclidean distance is used (*Euclidean distance*, square root of the sum of squared differences in values of each variable). Given the sample size, we use a hierarchical, i.e. agglomerative, clustering method for grouping the analyzed countries into clusters. Decision on the number of clusters relies on meaningfulness, as the main criterion in the analysis.

I iteration: Average Linkage (Between Groups)

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	1	24	85.7	85.7	85.7
	2	2	7.1	7.1	92.9
	3	2	7.1	7.1	100.0
	Total	28	100.0	100.0	

II iteration: Average Linkage (Between Groups)

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	1	22	78.6	78.6	78.6
	2	2	7.1	7.1	85.7
	3	2	7.1	7.1	92.9
	4	2	7.1	7.1	100.0
	Total	28	100.0	100.0	

Correlation

		Average Linkage (Between Groups)	Average Linkage (Between Groups)	Average Linkage (Between Groups)
Average Linkage (Between Groups)	Pearson Correlation	1	.947**	.649**
	Sig. (2-tailed)		.000	.000
	N	28	28	28
Average Linkage (Between Groups)	Pearson Correlation	.947**	1	.526**
	Sig. (2-tailed)	.000		.004
	N	28	28	28
Average Linkage (Between Groups)	Pearson Correlation	.649**	.526**	1
	Sig. (2-tailed)	.000	.004	
	N	28	28	28
**. Correlation is significant at the 0.01 level (2-tailed).				

The method of between-groups linkage is based on an average linkage between the groups, whilst taking into account information on all pairs of objects between the two clusters. By choosing this method in the first iteration, we get that the range of cluster solutions is three, with 24 member countries of the European Union (85.7%) making up cluster 1, and the two countries making up the second and the third cluster, respectively. In the second iteration, four clusters are formed, where 22 countries (78.6%) make up one cluster. The second cluster consists of two countries (7.1%), Greece and Cyprus. The third cluster (7.1%) includes Estonia and Romania, primarily because the savings rate and investment rate are quite high in both countries. The fourth cluster consists of two countries (7.1%), Lithuania and Latvia, which have achieved very similar trends, with roughly the same values of all the observed variables in the observed period.

Upon reconsidering the correlation between variables, we can conclude that the variables are highly correlated, with the level of significance of 0.01. By validation of cluster analysis, we test the significance of differences between clusters through variance analysis. The analysis shows that there is a statistically significant difference between clusters on the basis of observed variables, except for the savings rate. This is so because sig. is less than 0.05 for all variables except for the savings rate.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Growth2013	Between Groups	95.698	2	47.849	12.125	.000
	Within Groups	98.656	25	3.946		
	Total	194.354	27			
Savings2013	Between Groups	92.024	2	46.012	.595	.559
	Within Groups	1932.266	25	77.291		
	Total	2024.290	27			
Inflation2013	Between Groups	7.162	2	3.581	4.246	.026
	Within Groups	21.086	25	.843		
	Total	28.248	27			
Unemploy.2013	Between Groups	273.988	2	136.994	5.945	.008
	Within Groups	576.098	25	23.044		
	Total	850.087	27			
Investment2013	Between Groups	102.936	2	51.468	5.348	.012
	Within Groups	240.589	25	9.624		
	Total	343.524	27			

Based on the conducted cluster analysis, we can conclude that most of the member countries of the European Union make one cluster, judging by the selected variables, regardless of the selected method of clustering. With reference to this fact, at this point, we look at the European Union as a whole, or as one cluster. This indicates that the countries of the European Union are quite homogeneous in terms of the observed variables (GDP growth rate (%), savings rate (% of GDP), investment rate (% of GDP), inflation rate (%, ICP), and unemployment rate).

2.2 Sigma convergence

We observe dispersion of GDP per capita in certain years (1995, 2004, 2007, 2013), in which the Union was enlarged. Sigma convergence is shown by indicators of standard deviation or coefficient of variation of GDP per capita between countries. If the dispersion of GDP per capita decreases over time, we can conclude that convergence exists. Otherwise, if the dispersion of GDP per capita, as measured by standard deviation or coefficient of variation, remains unchanged or increases, there is divergence between countries.

The coefficient of variation, as a measure of convergence, shows the average deviation in parts of the arithmetic mean. Using the coefficient of variation, we compare the variance of the average GDP per capita in EU28 in different time periods. The coefficient of variation (CV) is the ratio of standard deviation (σ) and arithmetic mean (μ). When CV is multiplied by 100, we get the percentage value of variance.

Descriptive Statistics

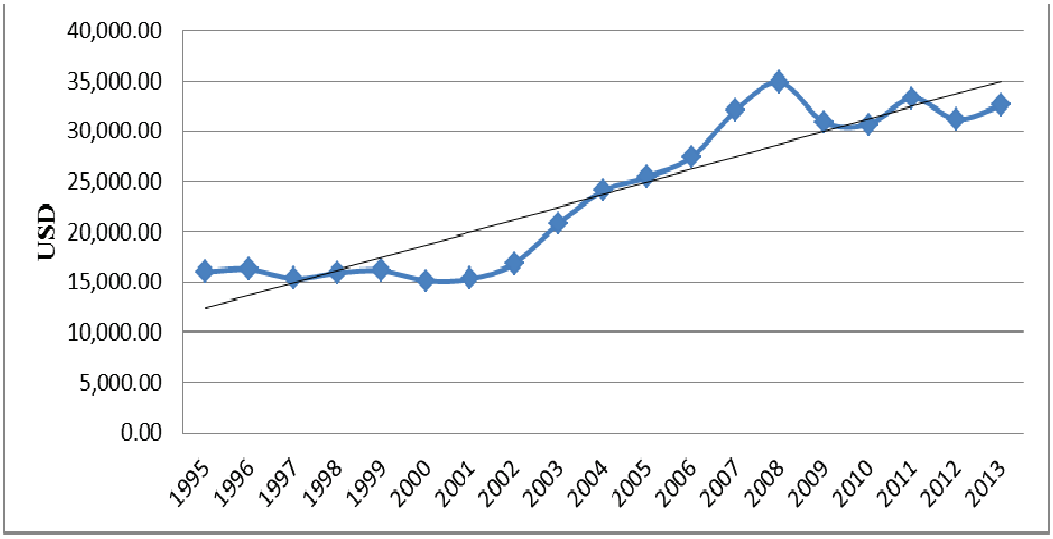
	N	Mean (2)	Std. Deviation (1)	Variance	Coefficient of Variation (1/2*100)
GDPpc1995	28	16008.15	12718.712	161765627.889	79.451479 %
GDPpc2004	28	24057.4746	16825.58767	283100400.373	69.93912682 %
GDPpc2007	28	32058.4732	21688.34746	470384415.609	67.65246531 %
GDPpc2013	28	32539.9325	21847.99996	477335102.107	67.14211826 %
Valid N (listwise)	28				

Based on the data presented in the above table, we can see that the coefficient of variation continuously decreases in the observed years, so that it can be concluded that there is convergence between the 28 EU member countries, as measured by the level of GDP per capita. The decrease in coefficient of variation is critically affected by greater increase in the average level of GDP per capita in EU28, compared to the increase in the standard deviation from year to year. Convergence will not exist if the dispersion of the observed variables increases, or remains unchanged during the analyzed years.

The results show that the EU28, as a whole, converges in respect of the level of GDP per capita. However, it is necessary to determine the direction of convergence, i.e. whether it is an upward or downward convergence. This will be determined on the basis of the linear trend of average GDP per capita in the analyzed period (1995-2013). According to the 2013 data, 16 member countries are below the average, while 12 countries have higher GDP per capita in relation

to the countries' average (EU6 founders, Austria, Denmark, Finland, United Kingdom, Ireland, and Sweden).

The presented analysis points to the existence of significant changes in the member states. It is interesting to determine the direction of these changes. Given that starting positions of the countries are different, the question is whether the convergence is aimed at higher or lower levels of development? Upward convergence, or convergence at the top, exists when the leading countries retain their positions, and countries that are lagging behind approach them over time. Another option is downward convergence, or convergence at the bottom, where countries that lag behind remain in their positions, while leading countries go down to lower levels (Josifidis and Supić, 2010, pp.21-42)



Graph 1: Average GDP per capita in the EU28 for the period 1995-2013
Source: Authors' systematization

Graph 1 shows the average GDP per capita for the EU28, and its linear trend in the period 1995-2013. We can see the moderate cyclic movement of this indicator over time, but also a linear upward trend.

2.3 Absolute convergence

The neoclassical growth model assumes that the growth process is followed by gradual reduction of development differences among countries. In addition, absolute convergence implies that countries have the same structure and aspire towards the same equilibrium, and that they only differ in the initial level of income per capita. The existence of convergence, or catch-up with the developed countries, is the result of higher growth rates, generated by less developed countries. This is true because of the diminishing returns of physical capital. However, practice shows that there are considerable differences in economic conditions, so that each country converges to its equilibrium, at a rate that is inversely proportional to the distance from the state of equilibrium (Barro & Sala-i-Martin, 2004).

However, plenty of studies show that there is no absolute confirmation of this standpoint, given that some underdeveloped economies generate high growth rates, and most countries have extremely low growth rates in the long term. Previous empirical studies have not confirmed a tendency of all developing countries to economically catch up with the developed countries over time, as measured by gross domestic product per capita.

On the whole, the integration into the European Union increases economic power of individual member countries, but not with the same intensity. Over time, the economic power of the member states increases, especially in the long term. However, it is important to note that the economic power of developed countries grows faster during the integration process. In other words, the less developed countries and developing countries, taking part in the integration process, have lower growth rates, compared to developed countries. Based on empirical testing of data, we can deny the thesis about the existence of absolute convergence within the European Union, i.e. that there is no tendency of catching up with the leading member states. However, this will be taken with skepticism, given rigid assumptions underlying this theoretical concept of convergence.

2.4 Relative convergence

Within the scope of the relative convergence, each country converges to its own equilibrium. According to the neoclassical growth model, developed countries have a more pronounced savings rate and a higher growth rate, compared to less developed countries.

Correlation

		GDPpc1995	Savings1995
GDPpc1995	Pearson Correlation	1	.412*
	Sig. (2-tailed)		.033
	N	28	27
Savings1995	Pearson Correlation	.412*	1
	Sig. (2-tailed)	.033	
	N	27	27

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation

		GDPpc2004	Savings2004
GDPpc2004	Pearson Correlation	1	.565**
	Sig. (2-tailed)		.002
	N	28	28
Savings2004	Pearson Correlation	.565**	1
	Sig. (2-tailed)	.002	
	N	28	28

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		GDPpc2007	Savings2007
GDPpc2007	Pearson Correlation	1	.518**
	Sig. (2-tailed)		.005
	N	28	28
Savings2007	Pearson Correlation	.518**	1
	Sig. (2-tailed)	.005	
	N	28	28

**. Correlation is significant at the 0.01 level (2-tailed).

		GDPpc2013	Savings2013
GDPpc2013	Pearson Correlation	1	.221
	Sig. (2-tailed)		.259
	N	28	28
Savings2012na2013	Pearson Correlation	.221	1
	Sig. (2-tailed)	.259	
	N	28	28

First, we test the correlation between income per capita and the savings rate. In the period from 1995 to 2004, there is positive correlation between the level of income per capita and savings rate in a defined group of 28 countries of the European Union. By calculating the Pearson coefficient for the two variables in the analyzed years (1995, 2004, 2007, 2013), it can be concluded that, among them, there is moderate to very strong positive correlation. In 1995, direct, moderately strong correlation exists. The highest level of quantitative agreement among variables exists in respect of in 2004, with the level of Pearson coefficient at 0.565, which indicates the great correlation between income per capita and savings rate. The correlation is significant at the error level of 0.01. Over all years analyzed in the paper, the level of coefficient of determination indicates that the model is statistically representative.

2.5 Beta (conditional) convergence

In order to empirically test the existence of conditional convergence at the level of the European Union, we will apply partial correlation analysis. Partial correlation explores the relationship between two variables (growth rate and level of GDP per capita), and we will statistically test the impact of third variable (GDP), which affects the strength of their relationship. Upon eliminating the impact of the third variable, there usually occurs a decrease in the correlation coefficient of the first two variables.

Conditional β convergence exists when the correlation between the growth rate and income per capita is negative, assuming that the impact of other factors (savings rate, growth rate, inflation, unemployment, investment) remains unchanged.

In respect of 2013, we can see negative correlation between growth rates and GDP per capita, without eliminating the impact of the third variable (GDP). In this case, the correlation amounts to -0.227. Upon elimination of the impact of the third variable, new partial correlation decreases to -0.186. With reference to 2007, we can also observe negative correlation between growth rates and GDP per capita, with the correlation level -0.235, or -0.154, upon elimination of the impact of the disruptive variable. Similar correlation coefficients are seen as regards 2004, amounting to -0.302, or -0.192. Only with respect to 1995 is there positive correlation between the growth rate and GDP per capita, with the levels equaling 0.406 and 0.379, respectively.

However, this correlation is not statistically significant, as the realized level of significance (sig) is greater than 0.05. It is also one of the limitations of the results, considering that this makes their generalization impossible.

3. Convergence within certain groups in the European Union

Since we have found that there is a developmental convergence in the countries of the European Union, it is equally important to determine whether the convergence is more pronounced within the groups of EU countries (EU6, EU15, and EU28), or among them.

In the course of the GDP per capita analysis, we will observe the trend of the selected indicator over time. The analysis uses the coefficient of variation, which indicates the range of dispersion of the observed indicator. It is calculated as the difference between the highest and the lowest score in the distribution, or, in the present case, as the difference between the largest and smallest GDP per capita within the observed dataset. Given that in calculating the coefficient of variation only two extreme values are taken into account, these extreme results cannot create a sufficiently reliable picture of the variance of GDP per capita in EU member states in the period 1995-2013.

Variations in GDP growth are noticeable among different groups of the European Union and among the countries belonging to the same group. Moreover, the dynamics of GDP growth is not automatically accompanied by decrease in the development gap among countries. It is important to assess the range of adjustments needed to reduce the differences in development among countries.

Table 1 shows convergence of gross domestic product per capita within the EU28 group. In absolute terms, the economic power of the EU28, as measured by average GDP per capita increased by 16.920 $ in the period 1995-2013. In relative terms, this change amounts to 108.33%. Development disparity among EU28 countries, as measured by coefficient of variation, has a downward trend (15.23 - 32.54 = -17.31). It can be seen that, during the analyzed period, developmental differences among the EU28 countries decrease. However, this positive trend cannot be seen in isolation, given that the differences are still very high (ratio between the most developed and least developed country in the EU28 group goes up to 15.23:1 as regards 2013). However, if we abstract extreme values from the analysis, i.e. remove the data recorded in the countries with the highest and the lowest GDP per capita (in this case, Luxembourg and Bulgaria), we see that the development disparity among the countries in respect of 2013, as compared to 1995, significantly decreases (from 22.23:1 to 6.2:1). It should be noted that by abstracting extreme values, full member states are excluded from the analysis. Although statistics recommends exclusion of extreme values from the analysis, this affects the relevance of obtained results, so we accept them with some caution.

Table 1: Convergence of gross domestic product per capita within EU28

Year	1995	2004	2007	2013
EU28				
Average GDP p.c. ($)	15,618.00	24,057.00	32,058.00	32,539.00
Coefficient of variation	49037,81	71139,42	101338,19	103865,20
Development disparity	32,54:1	22,89:1	19,16:1	15,23:1
Progress index in relation to 1995 (1995=100)	100	154,027	205,336	208,336
Nominal growth rate of GDP p.c. in relation to		54.03%	105.34%	108.34%

1995				
EU28 abstracted extreme values (Luxembourg and Bulgaria)				
Average GDP p.c. ($)	15,233.89	22,921.97	30,197.55	30,486.92
Coefficient of variation	33,209.73	42,233.45	50,838.21	49,394.79
Development disparity	22,23:1 (Denmark:Romania)	13:1 (Ireland:Romania)	7:1 (Ireland:Romania)	6,2:1 (Denmark:Romania)

Source: Authors' calculation, according to the World Bank data

Development index measures the relative change in the average GDP per capita over time in relation to the value in the base period. The study takes 1995 as the base period, given that this is the year of stable economic growth in Europe. The index value in the base period is 100 (average GDP EU6 $_{1995}$ / average GDP EU6 $_{1995}$ = 100). Indices greater than 100 indicate a positive direction of a trend, or a relative increase of the average GDP per capita of EU6 in relation to the selected base period. Based on the calculation, we can see that the economic power of individual member countries, measured by the value of GDP per capita, increases in the years of enlargement (2004, 2007, 2013), compared to the base year (1995).

The indicators show that the greatest effects of the start of integration are achieved at the level of EU28. By comparing the average GDP per capita in EU6, EU15, and EU28 in the period 1995-2013, the EU28 is the integration group with the highest rates of nominal growth of the average GDP per capita. Furthermore, we note that the nominal growth rates of GDP per capita are proportionate to the number of countries in the process of integration and the length of the observation period. Specifically, with increase in the number of member states and with the lapse of time in the process of integration, nominal growth rate of GDP per capita grows. Therefore, integration of 28 members has had positive effects on the economic power of the countries, as measured by the average GDP per capita.

Based on further analysis of the resulting data, it can be concluded that integration reduces the difference among member states in the short term, but viewed in the long term, it is deepening. However, it is not possible to determine very precisely the intensity at which the gap increases. On the whole, the integration into the European Union increases economic power of individual member countries, but not with the same intensity. Over time, the economic power of the member states increases, especially in the long term. However, it is important to emphasize that the economic power of developed countries in the process of integration grows faster. In other words, the less developed countries and developing countries, taking part in the integration process, generate lower growth rates, compared to developed countries.

In relative terms, in 2013, as compared to 1995, the economic power of the EU28, as measured by average GDP per capita, increased more than the power of EU15 and EU6 (EU28>EU15>EU6 or 108.33%>83%>77.8%). In absolute terms, in 2013, as compared to 1995, the economic power of EU6 increased the most in relation to EU15 and EU28 (EU6>EU15> EU28, or 23.721>21.148>16.920).

Conclusion

The intensification of globalization and the deepening of European integration point to the need for complementarity between coordination and competition among countries. Empirical data shows that the new EU member states have a much lower level of GDP and GDP per capita in comparison to the highly developed countries of the European Union. Whether the net positive effects of integration in the long term will surpass the negative effects depends on the speed of catching up with the developed member countries.

The indicators show that the EU28 has had greatest effects from the integration process. By comparing the average GDP per capita in EU6, EU15, and EU28 in the period 1995-2013, the EU28, as a group of countries in the process of integration, has achieved the highest rates of nominal growth of the average GDP per capita. In addition, we note that the nominal growth rates of GDP per capita are proportionate to the number of countries in the process of integration and the length of the observation period. Specifically, with increase in the number of member states and with the lapse of time in the process of integration, nominal growth rates of GDP per capita grow. Therefore, integration of 28 countries has had positive effects on the economic power of the countries, as measured by the average GDP per capita.

By using one of the methods of multivariate analysis, we can conclude that the majority of EU member states make one cluster, regardless of the selected method of clustering. Member countries of the European Union are quite homogeneous in terms of the observed variables. The first type of convergence that we empirically tested is Sigma convergence. It is shown by indicators of standard deviation or coefficient of variation of GDP per capita among countries. Since the coefficient of variation of GDP per capita continuously decreased in the period 1995-2013, we can conclude that there is convergence between the 28 EU member countries, as measured by the level of GDP per capita. We have shown that there is relative convergence in the European Union, given that a positive link was found between the level of income per capita and the savings rate in respect of the defined group of 28 countries in the period from 1995 to 2004. The third type of convergence analyzed in the paper is conditional or β convergence. It exists when the correlation between the growth rate and income per capita is negative, assuming that the impact of other factors remains unchanged. The study has identified a negative link between the observed data, but the established correlation is not statistically significant.

Based on the above, we can conclude that we have confirmed the starting hypothesis of the study, *that there was a process of convergence of economic performance in the European Union in the period 1995-2013*. Development disparities among EU28 countries, as measured by the coefficient of variation had a downward trend. During the analyzed period, developmental differences among the EU28 countries decreased, but this positive trend cannot be seen in isolation, given that the differences are still very big. The achieved results, in terms of upward convergence, show that some progress has been made, but that there is still much room for improvement.

References

1. Barro, R., & Sala-i-Martin, X. (2004). *Economic growth*. London: The MIT Press Capmridge Massachusetts
2. Caraveli, H., Tsionas, E.G. & Darzentas J. (2008). EU Growth, Convergence and the Knowledge Economy: An Empirical Investigation. *The Journal of Economic Asymmetries*. Vol. 5, Issue 2, pp. 105-124. (accessed 7.05 2015.) doi:10.1016/j.jeca.2008.02.007
3. International Monetary Fund. http://www.imf.org/external/data.htm (accessed 17.04 2015.)
4. Josifidis, K., & Supić, N. (2010). Država blagostanja – konvergencija – odozdo versus odozgo. *Zbornik Matice srpske za društvene nauke*. 130, 21-42
5. Kreuger, D. (2009). *Markoekonomika (Intermediate Macroeconomics)*. Sveučilište u Pennsylvaniji. Ekonomski fakultet u Zagrebu
6. Lein, S. M., León-Ledesma, M. A. & Nerlich, C. (2008). How is real convergence driving nominal convergence in the new EU Member States? *Journal of International Money and Finance*. Vol. 27, Issue 2, pp. 227–248 (accessed 7.03.2015.) doi:10.1016/j.jimonfin.2007.12.004
7. Ogrokhina, O. (2015). Market integration and price convergence in the European Union. *Journal of International Money and Finance*. Vol. 56, pp. 55–74 (accessed 17.06. 2015.) doi:10.1016/j.jimonfin.2015.04.004

8. Puziak, M. (2009). Real convergence of new EU members. An experience for Ukraine. *Jounal of International Studies*. Vol. 2, No 1, pp. 40-49
9. Rakauskienė, O. G. & Viktor Kozlovskij, V. (2014). Overview of EU Economic Cohesion Process Performance for New Member States. *Procedia - Social and Behavioral Sciences*. Vol. 110, pp. 284–292 (accessed 3.06.2015.) doi:10.1016/j.sbspro.2013.12.872
10. Soldić-Aleksić, J., & Chroneos Krasavac, B. (2009). *Kvantitativne tehnike u istraživanju tržišta*. Beograd: Centar za izdavačku delatnost, Ekonomski fakultet
11. Stojanović, B. (2014). Integrations Engineering–Challenges for Serbia and EU. http://bobanstojanovic.eu/novosti/jean-monnet-esej-integracioni-inzenjering-izazovi-za-srbiju-i-eu/ (accessed 1.05.2014.)
12. Stojanović, B. (2003). *Tržište Evropske unije: Konkurencija i trgovinska politika*. Niš: Ekonomski fakultet
13. National Bank of Serbia. http://www.nbs.rs/internet/latinica/40/40_2/index.html (accessed 6.04.2015.)
14. The World Bank. http://data.worldbank.org/indicator (accessed 20.02.2015.)
15. Woelk, J. (2013). EU Member State-Building in the Western Balkans: (Prolonged) EU-protectorates or new model of sustainable enlargement? Conclusion. *Nationalities Papers*. Vol. 41, No. 3: 469–482 (accessed 7.03. 2015.) http://dx.doi.org/10.1080/00905992.2013.768978

SLOVENIA'S TRADE IN GOODS AND SERVICES WITH ESTONIA, LATVIA AND LITHUANIA: A SUSTAINABLE PERSPECTIVE

Dejan ROMIH[40],
Katja CRNOGAJ[41]

Abstract

Slovenia is a small country and therefore highly dependent on its trade in goods and services with the world (mainly Europe). In order to further increase the geographic diversification of its foreign trade, Slovenia should promote further internationalization of Slovenian enterprises (especially small- and medium-sized ones) and adopt some other measures, such as increasing entrepreneurship. This paper, therefore, analyses Slovenia's trade in goods and services with Estonia, Latvia and Lithuania, three of Slovenia's minor trading partners in goods and services in Europe, and proposes some measures to increase the value of Slovenia's exports of goods and services to these countries. Additionally, it also deals with sustainability as an opportunity to increase the aforementioned value. In 2013, the value of Slovenia's trade in goods and services with these countries amounted to €210.1 million, an increase of 12.8 % over the previous year. In the same year, the value of Slovenia's exports of goods and services to these countries amounted to €137.4 million, a decrease of 1.4 % over the previous year, while the value of Slovenia's imports of goods and services from these countries amounted to €72.6 million, an increase of 53.6 % over the previous year. In order to increase the value of its exports of goods and services to these countries, Slovenia should increase the competitiveness of Slovenian enterprises in the Estonian, Latvian and Lithuanian markets, and adopt some other measures, such as increasing the sustainability of the aforementioned enterprises, which is very important to improve their market positions. Sustainable development offers many business opportunities for Slovenian enterprises operating in small markets, such as the aforementioned ones. Sustainable development should therefore become an opportunity for the further internationalization of Slovenian enterprises and other organizations. In order to achieve this goal, Slovenia should promote sustainable innovation and adopt certain other measures, such as increasing cooperation of Slovenian enterprises with their foreign counterparts in entering sustainable markets, which would have a positive impact on increasing the geographical diversification of Slovenian foreign trade.

Keywords: *trade, Slovenia, Estonia, Latvia, Lithuania, sustainability.*

[40] University of Maribor, Faculty of Economics and Business, Department of International Economics and Business, Razlagova ulica 14, 2000 Maribor, Slovenia, email: dejan.romih@um.si.
[41] University of Maribor, Faculty of Economics and Business, Department of Entrepreneurship and Business Economics, Razlagova ulica 14, 2000 Maribor, Slovenia, email: katja.crnogaj@um.si.

1. Introduction

The business environment is changing constantly (see Hamilton and Webster, 2015). In order to remain or become competitive, enterprises (including Slovenian ones) must constantly adapt to the changing business environment (see Jain, Trehan and Trehan, 2010). This, however, requires a different approach to their management. In order to gain a competitive advantage, enterprises must become better than others at something. Sustainability, for example, offers enterprises (especially small- and medium-sized ones) many opportunities to gain a competitive advantage (see Weidinger, Fischler and Schmidpeter, 2014; Jacobsen, 2011; Wells, 2013; Sanders and Wood, 2014). This is especially true for Slovenian enterprises, which have to look for business opportunities in niche markets. Therefore, in order to further increase the value of its exports of goods and services to the world (including Estonia, Latvia and Lithuania), Slovenia should promote sustainable business practices among Slovenian businessmen and adopt some other measures to increase the sustainability of their businesses. After all, in recent years, sustainable production and sustainable consumption have become increasingly important topics in international business (see Chappells and Trentmann, 2015; Lorek and Vergragt, 2015; Reisch and Thøgersen, 2015). Therefore, in order to increase the geographical diversification of its exports of goods and services, Slovenia should increase the sustainability of Slovenian enterprises and their demand and supply chains. Additionally, it should also further increase the sustainability of its governance (see Toots, Reetz and Jahn, 2014). In order to do so, Slovenia should promote systems thinking among its citizens. Blackmore, Ison and Reynolds (2015) argue that systems thinking is an important factor in increasing sustainability. In this context, the commitment of all stakeholders to sustainable values is crucial for the future success of the Slovenian economy in a competitive world.

In recent years, entrepreneurship has become increasingly important (see Hisrich, 2010; Hisrich, Peters and Shepherd, 2010; Schaper et al., 2013). This is particularly true for international entrepreneurship (see Zucchella and Scabini, 2007; Oviatt, Maksimov and McDougall, 2011; Fernhaber and Prashantham, 2015; Rialp, Rialp and Knight, 2015), which is an important factor in international trade in goods and services. Therefore, in order to (further) increase the value of international trade in goods and services (which in recent years has been affected by the financial, economic and social crisis (see Acharyya and Kar, 2014; Temouri and Jones, 2014), mainly in Europe (including Slovenia and some other countries in Central and Eastern Europe (CEE), for example, Estonia, Latvia and Lithuania) and in North America, its (main) stakeholders should promote international entrepreneurship still further. Additionally, they should also (further) promote cooperation between entrepreneurs/enterprises in areas such as sustainable innovation.

The rest of this chapter is structured as follows: Section 2 deals with sustainability as a business opportunity and competitive advantage, while Section 3 analyses Slovenia's trade in goods and services with the world in general and with Estonia, Latvia and Lithuania in particular. Section 4 lists the main findings and some measures to increase the value of Slovenia's exports of goods to the aforementioned countries.

2. Sustainability as a business opportunity and competitive advantage

The success of businesses depends on their ability to create a strategic position in their domestic and foreign markets. This ability, however, is more often than not associated with entrepreneurship, which includes exploration and exploitation of business opportunities. Nowadays, businesses need to act strategically in order to create the most value for their stakeholders (see Hitt et al., 2014; Hitt et al., 2015; Klonowski, 2015). This is particularly important for small businesses (including Slovenian ones), which often operate in niche markets. After all, a strategy is a plan of action designed to achieve an aim.

In recent years, sustainability has become an increasingly important topic in strategic management (see Jacobsen, 2011; Thiele, 2013; Wells, 2013; Weybrect, 2014; Sanders and Wood,

2015). Nowadays, many enterprises (including some Slovenian one) see sustainability as an opportunity to gain a competitive advantage (see Kopnina and Blewitt, 2015). Therefore, in order to increase their competitiveness, Slovenian enterprises should increase their sustainability and adopt some other measures. However, in order to remain or become competitive, enterprises must constantly innovate. Nidumolu, Prahalad and Rangaswami (2009) believe that sustainability is the key driver of innovation. In recent years, the strategic orientation of enterprises towards sustainability has become increasingly important. After all, in a changing business environment, enterprises must include a strategic perspective in their actions (see Kraus and Kauranen, 2009) and adapt their business strategies to this environment in order to gain competitive advantages (see Kuratko, 2014). Therefore, adaptation is the key to success.

According to Accenture (2013, p. 21), 93 % of chief executive officers (CEOs) believe that sustainability will be important to the future success of their businesses. In recent years, marked by the financial, economic and social crises in the developed world (mainly Europe and North America), sustainability has become a priority for many businesses and their leaders (see Eweje and Perry, 2011; Aras, Crowther, 2012; Laszlo, 2013; Stead and Stead, 2014; Wheelen et al., 2014; Weidinger, Fischler and Schmidpeter, 2014), including some Slovenian ones. According to Bonini and Titia Bové (2014), 13 % of CEOs argue that sustainability is the main priority on their agendas, while 36 % of CEOs argue that sustainability is one of the three main priorities on their agendas. By integrating sustainability into business strategies, a number of businesses (including some small ones) have gained a competitive advantage. Sustainability has therefore become an important factor in their competitiveness and business performance. In order to further increase both aspects, these businesses must constantly seek opportunities for all kinds of improvements. This is especially important for small- and medium-sized businesses operating in competitive markets.

In order to gain and maintain a competitive advantage in a sustainable business environment, businesses must constantly innovate. After all, innovation is a major factor in sustainable development. It is therefore more important than ever for Slovenia to increase the innovativeness of Slovenian businesses and to create an innovation-friendly business environment that will be attractive to foreigners. Nevertheless, sustainable development is a major challenge for all of its stakeholders. Therefore, Slovenian businesses must integrate sustainability into their business culture in order to accelerate their sustainable development. In the coming years, sustainability will play an increasingly important role in the business world, including the Slovenian one. Education must therefore be adapted to the current and future needs of a business environment in which businesses are increasingly looking for sustainable solutions to their business problems in order to increase their competitiveness.

In order to exploit existing business opportunities and create new ones, Slovenia should increase the competitiveness of Slovenian businesses (especially small- and medium-sized ones) and take some other measures, such as increasing their sustainability. After all, sustainable development creates many business opportunities for Slovenian businesses in the domestic and foreign markets. In order to remain or become competitive (and obtain a competitive advantage), Slovenian businesses must constantly adapt to change. This is especially true for small businesses operating in small markets. However, to further accelerate its sustainable development, Slovenia should adopt sustainable policies and strategies, and promote sustainable practices.

In order to increase their sustainability, Slovenian businesses must adapt their strategic planning to their changing needs as a result of their commitment to sustainable development. Additionally, they must also promote sustainable business practices among their employees and other stakeholders as a measure of their sustainability policy. This factor, among others, is very important in order to increase their competitiveness and to improve their business results. In order to increase the geographical diversification of their sales, which is very important for managing their risks, Slovenian businesses should look for business opportunities in lesser-known markets.

In recent years, sustainability has become a core business value for many businesses, especially market-oriented ones. In order to further promote sustainable development, Slovenia should increase the promotion of these businesses in the domestic and foreign markets (including

the Estonian, Latvian and Lithuanian ones) and adopt certain other measures.

3. Analysis of Slovenia's trade in goods with Estonia, Latvia and Lithuania

This section analyses Slovenia's trade in goods and services with Estonia, Latvia and Lithuania, Slovenia's minor trading partners in goods and services in Europe. In 2013, the value of Slovenia's trade in goods and services with these countries amounted to €210.1 million, slightly more than 0.4 % of the value of Slovenia's trade in goods and services with Europe, and an increase of 12.8 % over the previous year. In the same year, the value of Slovenia's exports of goods and services to these countries amounted to €137.4, a decrease of 1.4 % over the previous year, while the value of Slovenia's imports of goods and services from these countries amounted to €72.6 million, an increase of 53.6 % over the previous year. Therefore, Slovenian enterprises should adopt some measures to increase the value of its exports of goods and services to these countries, such as increasing their sustainability, in order to gain competitive advantages in the Estonia, Latvian and Lithuanian markets.

3.1. Slovenia's foreign trade in goods and services

Slovenia is a small country in Europe. In 2013, the value of Slovenia's gross domestic product (GDP) per capita amounted to €21,800 (an increase of 0.9 % over the previous year), which is higher than the value of GDP per capita of most other countries in Central and Eastern Europe (CEE), including Estonia, Latvia and Lithuania. Slovenia is, like most other countries in CEE, including the aforementioned ones, highly dependent on its trade in goods and services with the world (mainly Europe). There are many reasons for this, such as Slovenia's lack of some natural resources (natural gas, for example) and the small size of Slovenia's domestic market for goods and services. In 2013, the value of Slovenia's trade in goods and services with the world amounted to €52,178.9 million (see Figure 1), 144.4 % of the value of Slovenia's GDP and an increase of 0.6 % over the previous year. In the same year, the value of Slovenia's exports of goods and services to the world amounted to €27,392 million, 75.8 % of the value of Slovenia's GDP and an increase of 2.5 % over the previous year, while the value of Slovenia's imports of goods and services from the world amounted to €24,786.9 million, 68.6 % of the value of Slovenia's GDP and a decrease of 1.5 % over the previous year.

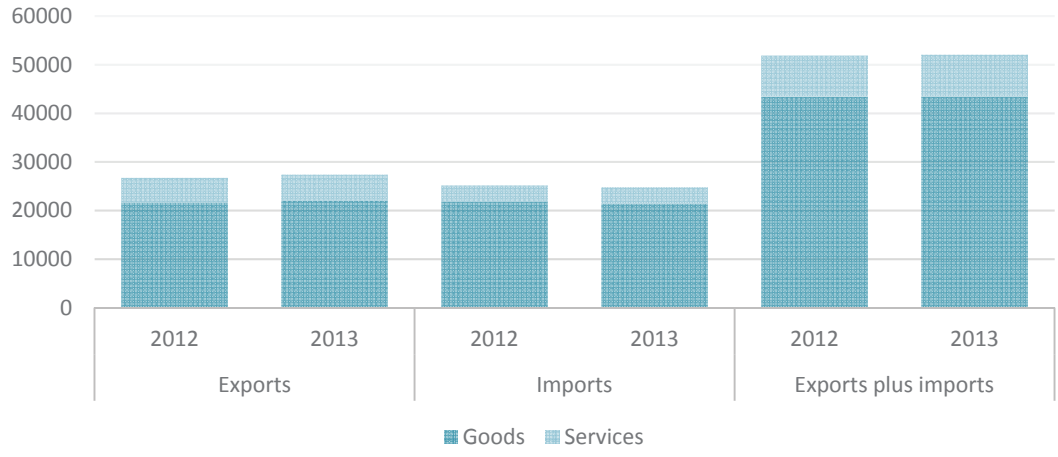


Figure 1: *Slovenia's trade in goods and services with the world (value in million €), 2012–2013*
Sources: Bank of Slovenia (2013, 2014).

In 2013, services accounted for 16.8 % of the value of Slovenia's trade in goods and services with the world, 19.6 % of the value of Slovenia's exports of goods and services to the world, and 13.7 % of the value of Slovenia's imports of goods and services from the world. In order to increase these percentages, Slovenia should increase the promotion of Slovenian service enterprises and their services in foreign markets (including the Estonian, Latvian and Lithuanian ones).

Europe is Slovenia's main trading partner in goods and services (see Table 1). There are many reasons for this, which are mainly economic, political and social. In 2013, the value of Slovenia's trade in goods and services with Europe amounted to €46,947.3 million, 90 % of the value of Slovenia's trade in goods and services with the world and an increase of 0.5 % over the previous year. In the same year, the value of Slovenia's exports of goods and services to Europe amounted to €25,075.2 million, 91.5 % of the value of Slovenia's exports of goods and services to the world and an increase of 2.6 % over the previous year, while the value of Slovenia's imports of goods and services from Europe amounted to €21,872.1, 88.2 % of the value of Slovenia's imports of goods and services from the world and a decrease of 1.7 % over the previous year.

In 2013, 48.1 % of the value of Slovenia's trade in goods and services with Europe was with Austria, Germany and Italy (see Table 2), Slovenia's major trading partners in goods and services.

Table 1: *Slovenia's trade in goods and services by region, 2012–2013*

		Goods		Services	
		2012	2013	2012	2013
Africa	**Million €**	622.9	548.7	39.2	46.6
	Percentage of the total value	1.4	1.3	0.5	0.5
America	**Million €**	1,155.2	1,249.9	244.0	250.5
	Percentage of the total value	2.7	2.9	2.9	2.9
Asia	**Million €**	2,452.3	2,331.0	230.9	293.4
	Percentage of the total value	5.6	5.4	2.7	3.3
Europe	**Million €**	38,800.9	38,808.5	7,891.2	8,138.8
	Percentage of the total value	89.3	89.4	93.5	92.8
Other regions	**Million €**	74.5	89.3	13.9	16.9
	Percentage of the total value	0.2	0.2	0.2	0.2
Not specified	**Million €**	327.2	379.0	22.6	26.4
	Percentage of the total value	0.8	0.9	0.3	0.3
Total	**Million €**	43,433.1	43,406.4	8,441.7	8,772.5
	Percentage of the total value	100.0	100.0	100.0	100.0

Source: Authors' calculations based on data from the Bank of Slovenia (2013, 2014).

Table 2: *Slovenia's trade in goods with countries in Europe, 2013*

	Exports		Imports		Exports plus imports	
	Value in million €	Percentage of the total value	Value in million €	Percentage of the total value	Value in million €	Percentage of the total value
Austria	2,734.8	10.9	2,941.5	13.4	5,676.3	12.1
Germany	3,544.9	14.1	3,680.5	16.8	7,225.4	15.4
Italy	5,189.5	20.7	4,493.3	20.5	9,682.8	20.6
Other countries	13,606.1	54.3	10,756.8	49.2	24,362.9	51.9
Total	25,075.2	100.0	21,872.1	100.0	46,947.3	100.0

Source: Authors' calculations based on data from the Bank of Slovenia (2014).

Other regions are Slovenia's minor trading partners in goods and services. There are many reasons for this, including geographical ones. Asia, for example, accounted for only 3.7 % of the value of Slovenia's exports of goods and services to the world in 2013, which is relatively low in relation to the size of the Asian market for goods and services. China, for example, accounted for only 13.9 % of the value of Slovenia's exports of goods and services to Asia in 2013, and 0.5 % of the value of Slovenia's exports of goods and services to the world in the same year.

In order to increase the value of its exports of goods and services to the world (especially Asia and some other regions), Slovenia should increase its competitiveness, which is lower than that of

some other countries in CEE (for example, Estonia, Latvia and Lithuania) and other regions (see Sala-i-Martín et al., 2014). Additionally, Slovenia should also further promote the internationalization of Slovenian enterprises, especially small- and medium-sized ones. Between 2008 and 2012, the number of enterprises that export goods from Slovenia to other countries and that of enterprises importing goods from other countries to Slovenia increased by 49.4 % and 23.1 %, respectively (see Romih, Primec and Oplotnik, 2015, p. 10). There were many reasons for this, such as the financial, economic and social crises, which have had a negative impact on Slovenia's financial, economic and social situation. As a result, many Slovenian enterprises have adopted a number of cost-cutting measures, and others, in order to survive. One of these measures has been their (further) internationalization, which has already had some positive effects on the Slovenian economy.

3.2. Slovenia's trade in goods and services with Estonia, Latvia and Lithuania

Estonia, Latvia and Lithuania are Slovenia's minor trading partners in goods and services in Europe. In 2013, the value of Slovenia's trade in goods and services with these countries amounted to €210.1 million (for details, see Figures 2 and 3), slightly more than 0.4 % of the value of Slovenia's trade in goods and services with Europe and an increase of 12.8 % over the previous year. In the same year, the value of Slovenia's exports of goods and services to these countries amounted to €137.4 million (a decrease of 1.4 % over the previous year), while the value of Slovenia's imports of goods and services from these countries amounted to €72.6 million (an increase of 53.6 % over the previous year), which means that Slovenia was a net exporter of goods and services to these countries. However, in the same year the value of Slovenia's net exports of goods and services to these countries decreased by 29.3 % over the previous year. Therefore, Slovenia should take some measures to increase the value of its exports of goods and services to these countries.

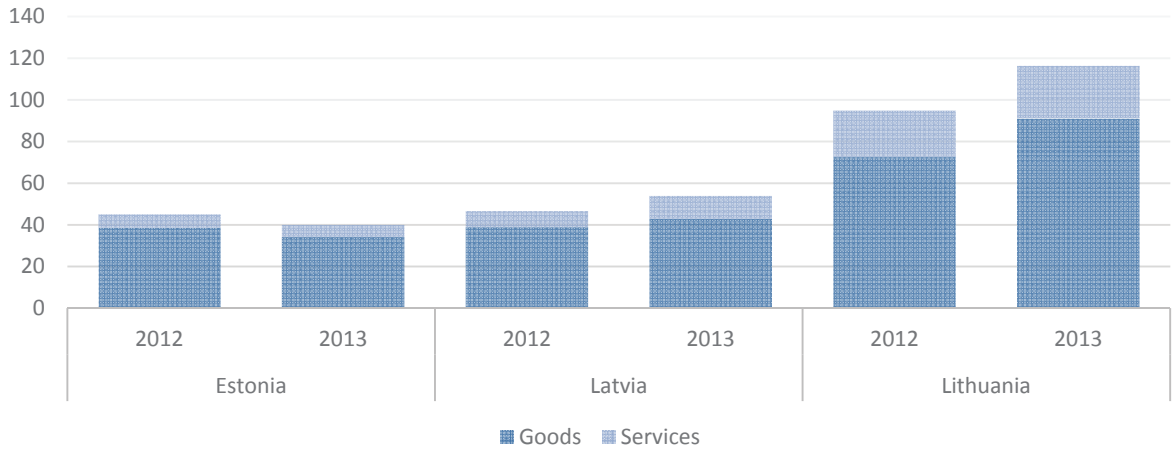


Figure 2: *Slovenia's trade in goods and services with Estonia, Latvia and Lithuania (value in million €), 2012–2013*
Source: Bank of Slovenia (2013, 2014).

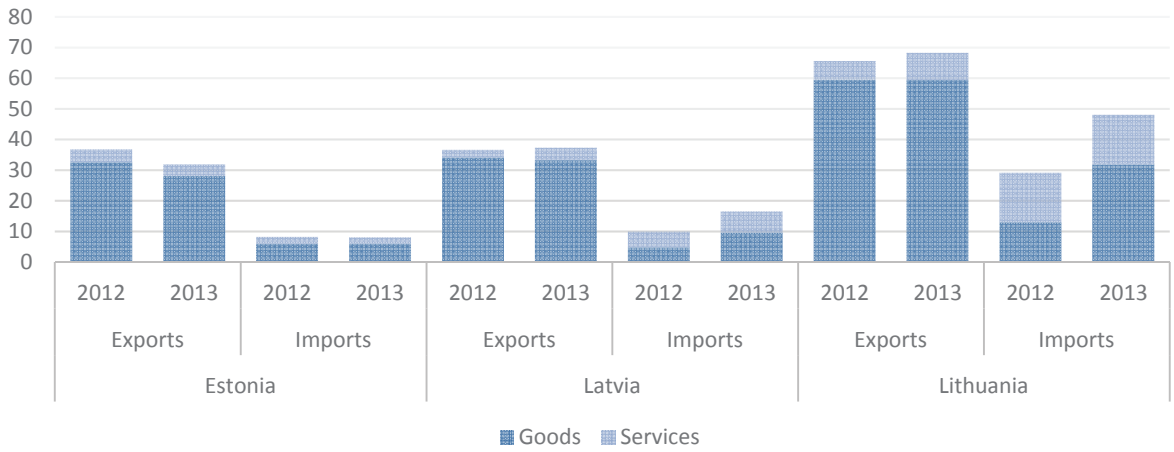


Figure 3: *Slovenia's exports of goods and services to Estonia, Latvia and Lithuania, and Slovenia's imports of goods and services from these countries (value in million €), 2012–2013*
Source: Bank of Slovenia (2013, 2014).

4. Conclusion

This paper analyses Slovenia's trade in goods and services with the world in general and with Estonia, Latvia and Lithuania in particular. The results of this analysis show that there are some unexploited opportunities to further increase the geographical diversification of Slovenia's exports of goods and services. In order to exploit existing business opportunities and create new ones, Slovenia should increase the competitiveness of Slovenian enterprises (especially small- and medium-sized ones) and adopt some other measures, such as increasing their sustainability. After all, sustainable development creates many business opportunities for Slovenian enterprises in the domestic and foreign markets. In order to remain or became competitive (and gain a competitive advantage), Slovenian enterprises must constantly adapt to the changing business environment. This is especially true for small enterprises operating in small markets, such as the Estonian, Latvian and Lithuanian ones. In view of these points, this chapter presents a starting point for in-depth discussion on the measures that should be adopted by Slovenia to further increase the value of its exports of goods and services to the world (including Estonia, Latvia and Lithuania) and to achieve some of its other goals. In this context, this chapter also presents a starting point for in-depth discussion on Slovenia's sustainable development, which creates new business opportunities for domestic and foreign enterprises (including small ones). However, to further accelerate its sustainable development, Slovenia should adopt sustainable policies and strategies, and promote sustainable practices. This, however, requires sustainable governance.

Sustainable development offers many opportunities to increase the value of Slovenia's exports of goods and services to the world (including Estonia, Latvia and Lithuania). In recent years, many Slovenian enterprises have adopted a number of measures to accelerate their sustainable development in order to remain or became competitive and, more importantly, to gain competitive advantages. For these enterprises, sustainability has become a commitment in order to increase their business excellence. This is especially true for small enterprises who find it difficult to compete with their larger counterparts. However, for small enterprises operating in niche markets, being a sustainability leader is particularly challenging.

In order to increase their sustainability, Slovenian enterprises must adapt their strategic planning to their changing needs as a result of their commitment to sustainable development. Additionally, they must also promote sustainable business practices among their employees and other stakeholders as a measure of their sustainability policy. This is, among other things, very important to increase their competitiveness and to improve their business results. In order to increase the geographical diversification of their sales, which is very important for

managing/reducing their risks, Slovenian enterprises should look for business opportunities in lesser-known markets, including the Estonian, Latvian and Lithuanian ones.

In 2013, the value of Slovenia's exports of goods and services to Estonia, Latvia and Lithuania amounted to €137.4 million (0.5 % of the value of Slovenia's exports of goods and services to Europe), which is low in comparison to the values of Slovenia's exports of goods and services to some other countries in Europe. For this reason, Slovenia should adopt some measures in order to increase the value of its exports of goods and services to Estonia, Latvia and Lithuania, in both the short- and long-term, and to achieve some of its other goals. In order to increase the value of its exports of goods and services to Estonia, Latvia and Lithuania, Slovenia should increase the competitiveness of Slovenian enterprises (especially small- and medium-sized ones) in the Estonian, Latvian and Lithuanian markets. Additionally, Slovenia should also: increase its cooperation with the aforementioned countries in areas such as the promotion of sustainable innovation in small- and medium-sized enterprises; increase the networking of Slovenian entrepreneurs/enterprises with their Estonian, Latvian and Lithuanian counterparts; increase cooperation of Slovenian entrepreneurs/enterprises with their aforementioned counterparts in areas such as the development and deployment of sustainable technologies in small- and medium-sized enterprises; increase the promotion of Slovenian enterprises, and their goods and services in the Estonian, Latvian and Lithuanian markets, etc.

The adoption of these measures is very important for the further geographical diversification of Slovenia's exports, which is one of Slovenia's strategic goals. Diversification, after all, reduces risk. It is, therefore, very important for Slovenia to improve its export promotion and to help Slovenian enterprises enter foreign markets, including the Estonian, Latvian and Lithuanian ones. Additionally, it is also very important for Slovenia to increase cooperation between Slovenian enterprises and some other organizations (universities, university research parks, etc.) in order to increase the transfer of knowledge and technology from one organization to another.

References

1. Accenture (2013). The UN Global Compact-Accenture CEO Study on Sustainability 2013: Architects of a Better World. http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-UN-Global-Compact-Acn-CEO-Study-Sustainability-2013.pdf (accessed 10.05.2015).
2. Aras, G., Crowther, D. (Eds.) (2012). *Business Strategy and Sustainability*. Emerald Group Publishing. Bingley. GBR.
3. Bank of Slovenia (2013). Current account by country in EUR – 2012. https://www.bsi.si/iskalniki/pregled-financnih-podatkov-en-vsebina.asp?VsebinaId=16015&MapaId=326 (accessed 21.4.2015).
4. Bank of Slovenia (2014). Current account by country in EUR – 2013. https://www.bsi.si/iskalniki/pregled-financnih-podatkov-en-vsebina.asp?VsebinaId=16756&MapaId=326 (accessed 21.04.2015).
5. Blackmore, C., Ison, R., Reynolds, M. (2015) Thinking Differently about Sustainability: Experiences from the Open University. In: W.L. Filho, U.M. Azeiteiro, S. Caeiro, F. Alves (Eds.), *Integrating Sustainability Thinking in Science and Engineering Curricula: Innovative Approaches, Methods and Tools.* Springer. Cham. CHE, pp. 613–630.
6. Bonini, S., Titia Bové, A. (2014). Sustainability's strategic worth: McKinsey global survey results. http://www.mckinsey.com/insights/sustainability/sustainabilitys_strategic_worth_mckinsey_global_survey_results (accessed 12.06.2015).

7. Chappells, H., Trentmann, F. (2015). Sustainable Consumption in History: Ideas, Resources, and Practices. In: L.A. Reisch, J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. Cheltenham. GBR, pp. 51–69.
8. Eurostat (2015a). Main GDP aggregates per capita. http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do;jsessionid=7Tz4r5c-9NelBsWMIQ-YRkhn7pvHi_5iDTtaPabRCvey3e7trfYN!809848420 (accessed 15.06.2015).
9. Eurostat (2015b). Population on 1 January. http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00001&plugin=1 (accessed 15.06.2015).
10. Eweje, G., Perry, M. (Eds.) (2011). *Business and Sustainability: Concepts, Strategies and Changes*. Emerald. Bradford. GBR.
11. Hamilton, L., Webster, P. (2015). *The International Business Environment*. 3rd Edition. Oxford University Press. Oxford. GBR.
12. Hitt, M., Ireland, R.D., Hoskisson. R. (2014). *Strategic Management: Competitiveness and Globalization.* Cengage Learning. Boston. USA.
13. Hitt, M., Ireland, R.D., Hoskisson, R. (2015). *Strategic Management: Concepts and Cases. Competitiveness and Globalization*. 11th Edition. Cengage Learning. Boston. USA.
14. Jacobsen, J. (2011). *Sustainable Business and Industry: Designing and Operating for Social and Environmental Sustainability.* Quality Press. Milwaukee.USA
15. Jain, T.R., Trehan, M., Trehan, R. (2010). *Business Environment*. 2nd Edition V.K. (India) Enterprises. New Delhi. IND.
16. Klonowski, D. (2015). *Strategic Entrepreneurial Finance: From Value Creation to Realization*. Routledge. Abingdon. GBR.
17. Kopnina, H., Blewitt, J. (2015). *Sustainable Business: Key Issues.* Routledge. Oxford. GBR.
18. Kraus, S., Kauranen, I. (2009). Strategic Management and Entrepreneurship: Friends or Foes? *International Business Science and Applied Management*. 4(1), pp. 37–50.
19. Kuratko, D. (2014*). Entrepreneurship: Theory, Process, and Practice*. 9th Edition. Thomson South-Western. Mason. USA.
20. Laszlo, C. (2013). *Business Strategies and Management for Sustainability.* Berkshire Publishing Group. Great Barrington. USA.
21. Lorek, S., Vergragt, P.J. (2015). Sustainable Consumption as a Systemic Challenge: Inter- and Transdisciplinary Research and Research Questions. In L.A. Reisch, J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. Cheltenham. GBR, pp. 19–32.
22. Nidumolu, R., Prahalad, C.K., Rangaswami, M.R. (2009). Why Sustainability is Now the Key Driver of Innovation. *Harvard Business Review*. 87(9), pp. 57–64.
23. Reisch, L.A., Thøgersen, J. (2015). Research on Sustainable Consumption: Introduction and Overview. In: L.A. Reisch, J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. Cheltenham. GBR, pp. 1–17.
24. Romih, D., Primec, A.., Oplotnik, Ž.J. (2015). Slovenia's Trade in Goods and Services with Australia and New Zealand. In: I. Vrankic, G. Kozina, V. Kovsca (Eds.), *Economic and Social Development: Book of Proceedings*. Varaždin: Varaždin Development and Entrepreneurship Agency, Koprivnica: University North. HRV, pp. 10–18.
25. Sala-i-Martín, X., Bilbao-Osorio, B., Di Battista, A., Drzeniek Hanouz, M., Geiger, T., Galvan, C. (2014). The Global Competitiveness Index 2014–2015: accelerating a Robust Recovery to Create Productive Jobs and Support Inclusive Growth. In: K. Schwab (Ed.), *The Global Competitiveness Report 2014–2015.* World Economic Forum. Geneva. CHE, pp. 3–52.
26. Sanders, N.R., Wood, J.D. (2014). *Foundations of Sustainable Business: Theory, Function, and Strategy*. John Wiley & Sons. Hoboken. USA.

27. Sanders, N., Wood, J.D. (2015). *Foundations of Sustainable Business: Theory, Function, and Strategy*. John Wiley & Sons. Chichester. GBR.
28. Stead, J.G., Stead, W.E. (2014). *Sustainable Strategic Management*. 2nd Edition. Routledge. Abingdon. GBR.
29. Thiele, L.P. (2013). *Sustainability*. Polity Press. Cambridge. GBR.
30. Weidinger, C., Fischler, F., Schmidpeter, R. (Eds.) (2014*). Sustainable Entrepreneurship: Business Success Through Sustainability.*: Springer-Verlag. Heidelberg. DEU.
31. Wells, G. (2013). Introduction: Historical and Emerging Themes in Sustainable Business. In: G. Wells (Ed.), *Sustainable Business: Theory and Practice of Business under Sustainability Principles*. Edward Elgar Publishing. Cheltenham. GBR, pp. 1–16.
32. Weybrecht, G. (2014). *The Sustainable MBA: A Business Guide to Sustainability*. 2nd Edition.: John Wiley & Sons. Chichester. GBR.
33. Wheelen, T.L., Hunger, J.D., Hoffman, A.N., Bamford, C.E. (2014). *Strategic Management and Business Policy: Globalization, Innovation, Sustainability*. 14th Edition. Pearson Education. Upper Saddle River. USA.

THE WEST-TRANSDANUBIAN LABOR MARKET

Előd, KOVÁCS[42]

Abstract

Following the general positive trend in the past couple of years the number of people employed has again increased in Hungary from 2013 to 2014. More than 4.1 million people were employed, which shows a gain by 208 thousand people. Looking at the statistics only it seems that in 2013 the absolute number of people employed has reached the level prior to the outbreak of the economic crisis in 2008, and in 2014 there were 200 thousand people more employed than in 2007. A deeper analyzes also shows that still the implementation of the public work opportunity by the Hungarian government has its effect on the statistics, but also some progress in the absorption of workforce by the normal companies on the labor market can be recognized. West-Transdanubia has had its special rank among the Hungarian regions since decades, mainly due to its spatial competitive advantages. The situation for this area even got better after Hungary has become member of the European Union in 2004, and with Austria's global opening of its labor market in 2011.

In my paper I am laying emphasis on the employment statistics and figures of the labor market in West-Transdanubia, as this region has been - and is still - facing some key factors: the absorption of skilled and motivated workforce by Austria and Germany - which also means partial brain drain - and also the settlement and reinvestments of MNEs, where again highly qualified labor is needed. Of course Hungarian employees choose Austria from all regions as a target country, but the great majority of commuters are living in this region. Despite the absorption of workforce by the Austrian labor market, the number of people employed in West-Transdanubia has increased by more than 10% from 2010 to 2014 with 43 thousand people. Some key companies of the region like Audi, LUK, etc. and their suppliers have reinvested in their production and extended their production capacities, which has also led to continuous growing employment statistics.

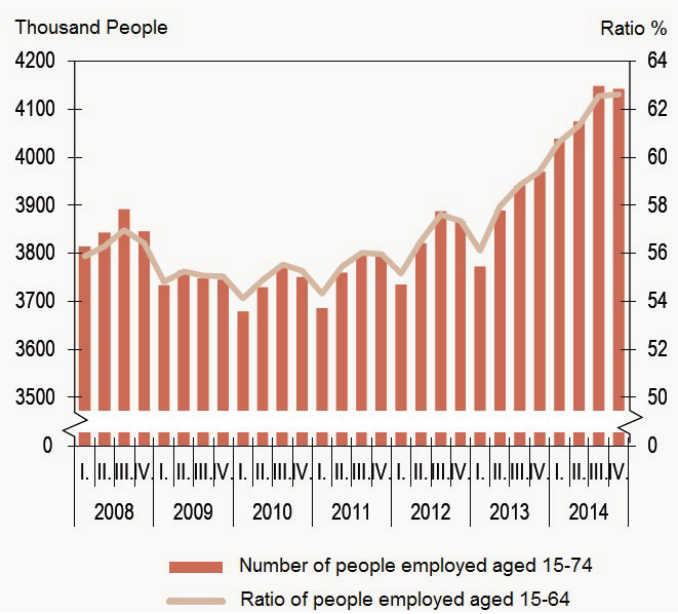
Key words: *West-Transdanubia, labor market, unemployment*

[42] PhD Student, Széchenyi István University Hungary, Doctoral School of Regional- and Economic Sciences, HU-9026 Győr, Egyetem tér 1.; E-mail: elodmail@gmail.com

1. The Hungarian labor market

According to the European Commission, after a longer process of continuous decline, the population of Hungary was 9.877 thousand people on the 1st of January 2014 (EURES, 2015), which got even less by the 1st of January 2015 with 28 thousand people (KSH, 2015d) showing by this time a total of 9.849 thousand. The number of people being employed has risen during the year by almost 208 thousand people, based on the national figures submitted by the Hungarian Central Statistical Office (KSH, 2015a). In the last quarter of 2014, 104 thousand people more were employed in Hungary, than in the first one of the same year. According to the official KSH statistics - which is based on the Labour Force Survey Data -, the number of people employed in 2014 has exceeded the number of people employed before the outreach of the 2008 world economic crisis by almost 200 thousand (KSH, 2015a). Figure 1 shows the development of the number of people being employed, and the ratio of employment of people aged 15-64.

Figure 1



Figures of people being employed and ratio of the employment of people aged 15-64.
Source: Central Statistical Office, Processes of the labor market, 2014. Q1-Q4 (KSH, 2015a)

Within Hungary we can find huge differences between the economical development status and the consistence of society of the individual regions. One aspect of which is the difference revealing itself in the quality of employment and the compound of the population based on the economic activity, all influenced by the economical prosperity turnovers, the actions of employment politics and also the economic affairs with local importance (KSH, 2014a). In the region the GDP per capita was 2.906 thousand HUF in 2012 (KSH, 2015).

From November 2014 to end of January 2015 the unemployment ratio in Hungary has fallen to 7.5%, and the number of people officially unemployed has fallen with 33 thousand people to 330 thousand (KSH, 2015b). With a further development, the unemployment ratio of the group of people aged 15-64 went further down and reached 6.8% in July 2015 (KSH, 2015c). We have to keep in mind, that the growth in the number of people being employed is not only related to the gain of workforce demand of the companies or the state itself due to the ‘soaring’ Hungarian economical output, but also public works programs play a key role and contribute heavily to the decreasing unemployment figures. Public work programs have also supported to pull the breaks in the further growth of the regional differences, because this form of employment has been implemented targeted by the Hungarian government in the areas with the worst aptitudes.

Despite the efforts there is still a wide gap between the best and the worst region related to employment figures, which shows an almost 14% difference between the leader capital Budapest, followed by Győr-Moson-Sopron County (67.5 and 67.2%), and the worst prospering Borsod-Abaúj-Zemplén County (54%). Figure 2 shows the monthly development of the number of people being employed as part of the public work programs (KSH, 2015a).

Figure 2

Figures of the number of people being employed as part of the public work programs 2010-14 *Source: Central Statistical Office, Processes of the labor market, 2014. Q1-Q4 (KSH, 2015a)*

Analyzing the status of Hungary related to employment rate within the EU for the age group 15-64 based on the latest statistics we can see a continuous development from 2010 onwards, concluding in 61.8% in 2014 (EUROSTAT, 2015a). Related to the latest unemployment figures we find that Hungary is in a good position within the EU, as it is on rank 11 with its 6.9% Eurostat figure, whereas the average of the Eu28 is 9.5% (EUROSTAT, 2015b).

The importance of Austria in the employment of Hungarian workers is rapidly increasing ever since Hungary has become an EU-member in 2004. It is obvious, that as a border-country of Hungary Austria has its geological pulling effect being the direct gate to the western world, but much more important for already close to 68 thousand Hungarians working in Austria, the wages are three to five times higher, than for example in the definitely not underpaid towns of the relatively highly developed Western-Transdanubian cities (Kovács, 2014). Based on the statistics of the Main Alliance of the Austrian Social Insurance Cover (called Hauptverband der österreichischen Sozialversicherungsträger) in July 2015, 75.690 Hungarians were legally working in Austria, which also means at the same time, that Hungarians are the second largest group after the Germans on the Austrian labor market (Hauptverband, 2015).

Many people are daily commuters; people who work abroad, but actually do not move there, and have habitation in the country of origin are called commuters. In Hungary they appear in the statistics of the national Workforce survey, according to which in 2013, 100 thousand people were commuters in the whole country (KSH, 2014b). According to the recent study of the Central Bank of Hungary, the commuters are younger, have much less experience than the other citizens and have had mainly secondary education (MNB, 2014). Another important finding in the study is, that a great part of the Hungarian migrants work in a job role claiming a lower qualification than what they have. The increasing number of Hungarian commuters plays key role in the building- and catering industry. In July 2015 most Hungarian work-motivated migrants in Austria (15.608 persons) were earning their money in Burgenland followed by the capital Vienna, with 14.076 (Hauptverband, 2015).

2. The West-Transdanubian labor market

West-Transdanubia planning-and statistical region consist of three counties in West Hungary, which counties are: Győr-Moson-Sopron, Vas and Zala. Its most important natural resource is its thermal- and medicinal water supply, which can be found throughout the region and is available abundantly. The region covers 12.2% of the country's territory. The spatial aptitude is unique, as it is bordering 4 different countries, namely Austria, Croatia, Slovenia and Slovakia. This concludes in the fact that half of Hungary's border traffic is actually undergoing here. After the transformation period a large volume of FDI came into the region, which was supported by its extraordinarily favorable spatial location.

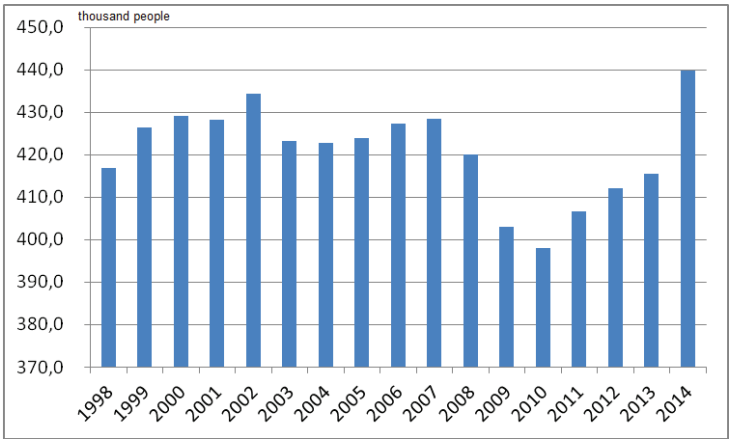
Counties Győr-Moson-Sopron and Vas were directly linked to the EU due to their location and therefore foreign direct investments were directly routed there. The economical structure of the region has different carriers, which is assured by the MNEs in the area, the high level of FDI and the export ratio. The investments in the region went mainly into the industry, but the presence of FDI is quite divergent, concentrated mainly in the north and central areas (SZE, 2009). The ratio of FDI present in Hungary was 16.528 Mrd HUF by the end of 2010, by the time 29.5 thousand companies with foreign share in business were operating. Most of these companies had their seat in Central-Hungary (21.013), followed by West-Transdanubia with 2.628. The number of foreign companies in Hungary gives a total of 4.2% out of all companies present. 77% of the companies with foreign share in business were operating exclusively with foreign capital. In West-Transdanubia the volume of FDI by the end of 2010 was 2.140 million HUF, which is a 9% gain compared to 2008. The net income per foreign share company in the region was 1.117 million forint in 2010, and the capital per foreign share company 815 million forint (KSH, 2012).

The economy of the West-Transdanubia region has shown a more ideal picture already in the beginning of the 2000s than other parts of Hungary. Considering its economical development the region was mainly head to head achieving with the Central Hungarian region, which also includes the capital Budapest. The favorable volume of FDI arriving into the region created new workplaces, which induced additional labor-receptive markets and with it further needs for training (KSH, 2009).

As per the 1st of January 2015 almost 10% of the population of Hungary lives in the region, altogether 984 thousand people. Győr-Moson Sopron county hosts the most people with 453 thousand, followed by county Vas with 254 thousand and finally comes county Zala with 277 thousand inhabitants (KSH, 2015f). In Q1 2015 in Hungary there were in total 1.695.327 registered companies, out of which 158.789 were located in this region. Győr-Moson Sopron county is again leading with a total number of 70.332 companies operating, followed by county Zala with 49.304 and county Vas hosts 39.153 companies. Considering the number of companies per 1.000 inhabitants, only county Zala hits the national figure. In Hungary in total 172 companies fall on 1.000 inhabitants in average, in county Zala 178. County Győr-Moson-Sopron comes next with 155 companies per 1.000 inhabitants, followed directly by county Vas with 154 (KSH, 2015f).

Considering the number of people employed we can see, that in 2014 a total of 439.800 people were employed in the region (KSH, 2015e). Despite its favorable location and excellent status among the Hungarian regions, the outbreak of the world economic crisis in 2008 heavily affected the employment opportunities of the region, as it can be seen on figure 3, which shows the development path of the number of people being employed in the West-Transdanubia region.

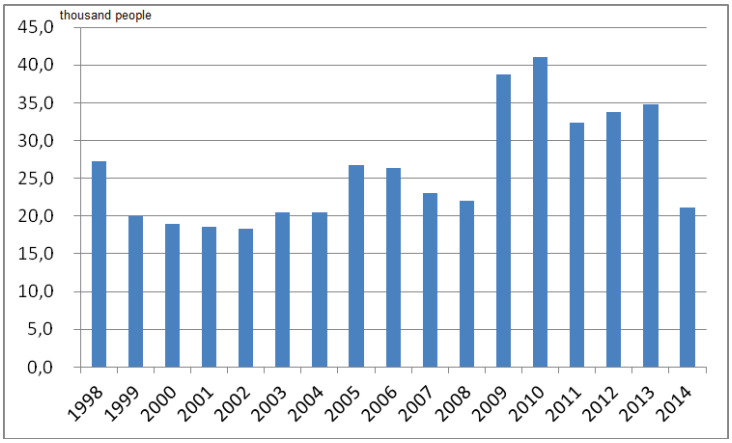
Figure 3



Development path of the Number of people being employed in the West-Transdanubia region 1998- 2014. *Source: Central Statistical Office (KSH, 2015e), own editing*

Figure 3 also shows that after the elections in 2010 the development is stabile, the number of people being employed in the region in 2014 is more than 10% higher, than in 2010. Together with the rising of the number of people being employed also the employment ratio climbs much higher, from the deepest 58.6% in 2010 to 65.8% by the end of 2014 (KSH, 2015e). Unemployment figures do not necessarily completely cohere with the changes in the level of people being employed. In case of the West-Transdanubia region we also get to see a clear divergence. Figure 4 shows the tendency of the number of people being unemployed.

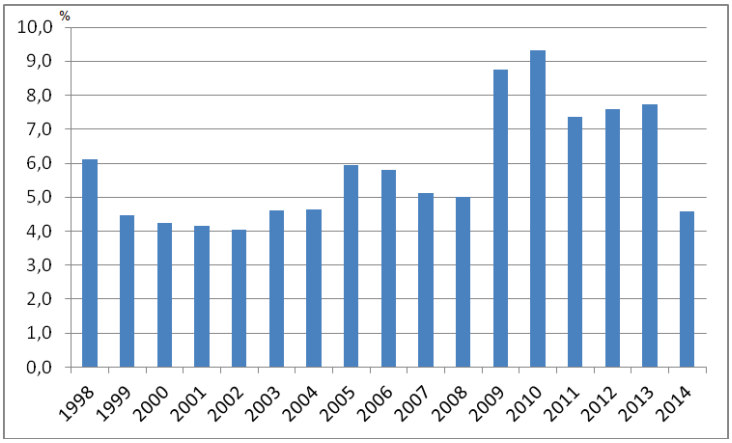
Figure 4



Tendency of the number of people being unemployed 1998- 2014
Source: Central Statistical Office (KSH, 2015e), own editing

There is a clear drop from 2013 to 2014 with almost 15 thousand people after a stable-climbing period after 2008. Analyzing the age groups of those being unemployed we can see, that 4.7 thousand people are aged between 15- 24, 16.4 thousand people are aged between 25-64 and only 0.1 thousand belong to the elder age groups. The biggest drop compared to 2013 we can see in the age group 25- 64, as one year earlier 27 thousand people were not employed here (KSH, 2015g). The unemployment ratio in Hungary was 7.5% at the end of January 2015 (KSH, 2015b), therefore the statistic of the West-Transdanubia region prove its advantages previously unleashed in my paper. Figure 5 shows the changes of the unemployment ratio in the region.

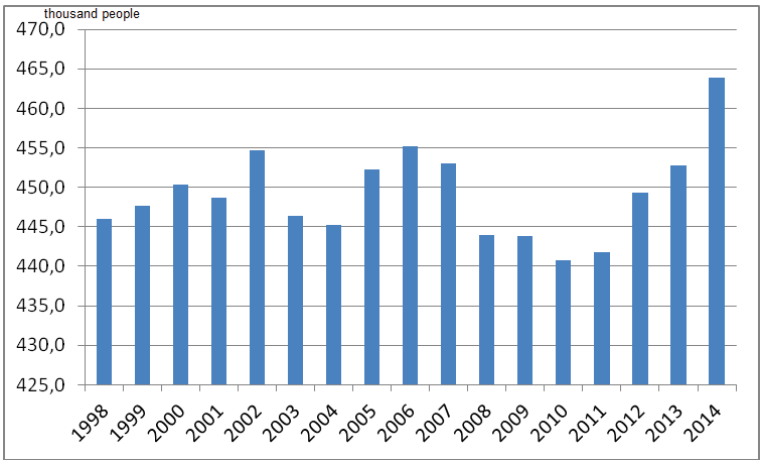
Figure 5



Unemployment ratio tendencies in West-Transdanubia 1998- 2014
Source: Central Statistical Office (KSH, 2015e), own editing

Compared to the total Hungarian statistics we can see that the region with its 4.6% unemployment ratio is much better than the Hungarian 7.5% average, and can be considered as an ideal achievement. The region of course can not only be proud of itself only, we must keep in mind, that plenty of inhabitants do earn their daily living in the neighboring Austria. Investigating the labor market situation it is necessary to analyze the economically active population. Figure 5 shows the economically active population in the region from 1998- 2014.

Figure 6



The economically active population in West-Transdanubia 1998- 2014
Source: Central Statistical Office (KSH, 2015h), own editing

Concerning the economically active population we can see that the statistics cover the age groups 15-74, whereas there is only a difference of 3 thousand people upon closing with the age groups of 64 in spite of 74. In 2014, 424 thousand people belonged to the 25-64 age group economically active population in the region, 36.9 thousand to the 15-24 and 3 thousand to the 65-74. Unfortunately the falling tendency of the 15-24 age group in general seems to be unstoppable, whereas the 65-74 age group remains insignificantly stabile.

The ratio of the economical activity was in 2014, 60.5% which is the second best in the country after Central-Hungary with its 61.5%. In the age group 15-24 the West-Transdanubia region with its 34.2% even beats Central-Hungary, where the ratio is only 25.9%, which actually is

the lowest in Hungary. Second place after Central-Hungary is also reached in the age group 25-64, where the West-Transdanubia region has 75.7% versus the Central-Hungarian 78.4%. Also in the oldest age group Central-Hungary beats the West-Transdanubia region, just like all others, as former has 4% and the latter 3% (KSH, 2015i).

The National Employment Service publishes on its website on a monthly base its summary report. The latest - July 2015 - figures show, that the total number of registered jobseekers in Hungary was 362.022 in this month (NFSZ, 2015). More than half of the jobseekers did not get any benefit, 126.365 people were recipients of social assistance, and 47.700 were school-leavers. In July 2015 the percentage of the registered jobseekers was 12.6% lower than in the same period of the previous year. Out of the 362 thousand jobseekers there were only 18.655 in the West-Transdanubia region, 17.7% less, than one year earlier. Concerning the number of registered job seeking school-leavers we see that in the region we have 2.093 people belonging to this group, and again there is a huge - 20.1% - improvement compared to July 2014. The ratio of registered jobseekers compared to the economically active population in West-Transdanubia is the lowest in Hungary, exactly 4%, whereas in Northern Hungary we have 14.7%. The same ratio compared to the population in employment age is 2.7% in this region, again the lowest in Hungary. In July 2015 in the region 5% more open non-supported job positions have been reported than one year earlier, coming to a total of 2.754, and zero major layoffs were reported.

3. Conclusion

It seems to be proven that the West-Transdanubian labor market is having quite good times after some fallbacks upon the outbreak of the 2008 world economic crisis. The implementation of the public works by the Hungarian government played a key role in the development of the employment statistics, but in case of the region the closeness and the complete openness of the Austrian labor market is an even more important factor. The region - and mainly county Győr-Moson-Sopron, and partly county Vas – are key actors in the automotive industry, which - together with the growing demand of automotive products - leads to continuous investments into the region, which make it possible to further improve the employment statistics. We also have to keep in mind that in case of any market-leaving decision of any important company hundreds- or thousands of people might lose their jobs, which situation cannot be easily solved than by the local or central government. It was not aim of this paper to focus on the future trends of further work-related migration going out from Hungary, but it is clear that many of the highly qualified, skilled and motivated citizens plan to work in Austria or Germany.

References

1. EURES (2015). Labour market information Hungary – National level: https://ec.europa.eu/eures/main.jsp?countryId=HU&acro=lmi&showRegion=true&lang=en&mode=text&regionId=HU2&nuts2Code=HU22&nuts3Code=null&catId=2768 (accessed 04.09.2015.)
2. EUROSTAT (2015a). Employment rate, age group 15-64, 2004-14. http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Employment_rate,_age_group_15%E2%80%9364,_2004%E2%80%9314_%28%25%29_YB16.png (accessed 04.09.2015.)
3. EUROSTAT (2015b). Unemployment rates, seasonally adjusted, July 2015. http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Unemployment_rates,_seasonally_adjusted,_July_2015.png (accessed 04.09.2015.)
4. Hauptverband (2015). Statistische Daten aus der Sozialversicherung – Beschäftigte in Österreich – July 2015. http://hauptverband.at/portal27/portal/hvbportal/content/

contentWindow?contentid=10007.693676&action=2&viewmode=content (accessed 02.09.2015)
5. Kovács, E. (2014). The importance of Hungarian employees on the Austrian labour market. In: Reproduction of Human Capital – mututal ties and interactions – conference proceedings. Melandrium, 2014.
6. Központi Statisztikai Hivatal (2015a). Statisztikai Tükör. Munkaerő-piaci folyamatok, 2014. I-IV. negyedév. www.ksh.hu/docs/hun/xftp/idoszaki/mpf/mpf1412.pdf (accessed 07.08.2015.)
7. Központi Statisztikai Hivatal (2015b). Gyorstájékoztató. Munkanélküliség 2014. November – 2015. január. https://www.ksh.hu/docs/hun/xftp/gyor/mun/mun21501.pdf (accessed 07.08.2015.)
8. Központi Statisztikai Hivatal (2015c). További fontos adatok: munkanélküliségi ráta 2015. július. http://www.ksh.hu/tovabbi_fontosabb_adatok (accessed 04.09.2015.)
9. Központi Statisztikai Hivatal (2015d). Népmozgalom, 2014. www.ksh.hu/docs/hun/xftp/idoszaki/nepmozg/nepmoz14.pdf (accessed 04.09.2015)
10. Központi Statisztikai Hivatal (2014a). 2011. évi népszámlálás – a népesség gazdasági aktivitása. www.ksh.hu/docs/hun/xftp/idoszaki/nepsz2011/nepsz_13_2011.pdf (accessed 05.09.2015)
11. Központi Statisztikai Hivatal (2014b). Munkaerő-piaci folyamatok, 2014. I. félév. Retrieved October 16, 2014 from http://www.ksh.hu/apps/shop.kiadvany?p_kiadvany_id=35960
12. Központi Statisztikai Hivatal (2009). Munkaerő-piaci szerkezetváltás a Nyugat-Dunántúlon. expak-at.hu/expak/img/uploads/expak963.pdf (accessed 07.08.2015)
13. Központi Statisztikai Hivatal (2012). Külföldi tőke a régiókban. www.ksh.hu/docs/hun/xftp/idoszaki/regiok/gyorkulfoldi.pdf (accessed 07.09.2015)
14. Központi Statisztikai Hivatal (2015e). http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/mpal9807_05_01c.html (accessed 01.09.2015)
15. Központi Statisztikai Hivatal (2015f). www.ksh.hu/docs/hun/xftp/megy/151/gyor151.xls (accessed 04.09.2015)
16. Központi Statisztikai Hivatal (2015g). http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_qlf010a.html?down=3659 (accessed 06.09.2015)
17. Központi Statisztikai Hivatal (2015h). A gazdaságilag aktívak száma korcsoportok szerint, nemenként (1992-2014). http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_qlf013a.html (accessed 06.09.2015)
18. Központi Statisztikai Hivatal (2015i). Aktivitási arány korcsoportok szerint, nemenként 1992-. http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_qlf016a.html (accessed 06.09.2015)
19. MNB (2014). A kivándorlás hatása a hazai munkaerőpiacra. MNB-tanulmányok 114. Bodnár K.- Szabó L.T. Retrieved October 15, 2014 from http://webcache.googleusercontent.com/search?q=cache:2zq0T47ffuUJ:www.mnb.hu/Root/Dokumentumtar/MNB/Kiadvanyok/mnbhu_egyebkiadvanyok_hu/A_kivandorlas_hatasa_a_hazai_munkaeropiacra.pdf+&cd=1&hl=hu&ct=clnk&gl=hu
20. Nemzeti Foglalkoztatási Szolgálat (2015). Az NFSZ adatainak összefoglaló táblázata 2015. július. http://nfsz.munka.hu/engine.aspx?page=full_afsz_havi_reszletes_adatok_2015 (accessed 06.09.2015)
21. Széchenyi István Egyetem (2009). A Nyugat- dunántúli régió munkaerő-piaci helyzete. Elemző tanulmány. (SZE, DPR) https://www.felvi.hu/pub_bin/dload/DPR/szakmai_osszefoglalo_anyagok/SZE_munkaeropiac_palyakovetes_tanulmany.pdf (accessed: 07.08.2015)

WESTERN BALKANS AND ECONOMIC-SYSTEM REFORMS: COMPARATIVE ANALYSIS OF TRANSITION INDICATORS

Jelena TOSKOVIC[43],
Jovana ADZIC[44],
Jasna MARKOVIC[45]
PhD students

Abstract

Since 1990. Western Balkans countries (Albania, Bosnia and Herzegovina, FJR Macedonia, Montenegro and Serbia) have entered in transition process and started implementation of economic-system reforms in order to build a market-oriented economy. The cause of reforms are considered the macroeconomic imbalances, supply and demand mismatch, large external debts and the abandonment of the socialist and the transition to a capitalist regime. Each of the Western Balkans countries had inherent pace of implementation of the macroeconomic reform process, but also certain regional characteristics are observed. In order to measure progress in the transition process, the European Bank for Reconstruction and Development (EBRD) has developed a set of transition indicators that are most representative comparative indicators of performance and dynamics of institutional reforms. These indicators cover nine areas relevant to the transition process: large scale privatization, small scale privatization, governance and enterprise restructuring, price liberalization, trade and forex system, competition policy, banking sector, non-banking institutions and infrastructure. Each indicator is measured by the standards of developed market economies and shows a synthesized assessment of the progress achieved in a particular field, based on different data, descriptive information and analysis. These sectoral transition indicators, which covers the most important elements of the market economy, summarizes progress in structural and institutional reforms in transition countries, but also indicate stagnation in reforms.
The aim of paper is review of current performance and implementation process of economic and systemic reforms in the period from 2000 to 2012. using comparative analysis of the transition indicators, on the example of the Western Balkans transition economies. Resulting average value and the movement of each transitional indicator by a given district for each of the Western Balkan countries represent the situation in the defined area. Current picture and trend-economic progress of systemic reforms in the Western Balkans countries, viewed through the values of transition indicators is very useful in order to find optimal solutions to these economies that will lead to economic growth and macroeconomic stability. Also, the results indicate a bad situation and the slow progress of certain areas in the Western Balkans region, which imposes the need for immediate action that would lead to improvements of macroeconomic performance.

Keywords: *analysis, economic-system reforms, transition indicators, the Western Balkans*

[43] Faculty of business economy, University Educons, Sremska Kamenica, Serbia, toskovicjelena@yahoo.com
[44] Faculty of business economy, University Educons, Sremska Kamenica, Serbia, jovanna.adzic@gmail.com
[45] Faculty of business economy, University Educons, Sremska Kamenica, Serbia, kontosmj@gmail.com
Note: This work was done on the basis of research still unpublished doctoral dissertation of the first author on the paper

Introduction

Macroeconomic processes in the Western Balkan region after 2000 can be characterized as transitional and reform. The changes are manifested on two levels - in the institutional sphere, i.e. in the field of economic system and economic policy and in terms of economic development. In the first case, the focus is on the transition from non-market or incomplete market economy to a full market solution, and the second to change the development paradigm and reorientation of the dynamic and stable growth of production and living standards. The Western Balkans, due to the delayed transitional start conditioned by difficult legacy, significantly lagging behind in the reform process, even below the average of the south to the East of Europe which are not yet members of the EU, especially in key segments: the restructuring of large enterprises, competition policy and infrastructure reforms. Transformational sluggishness was not geared at constructing a new economic system. On the contrary, the transition "gradualism" and "gradual reforms" seems not managed to achieve two main pillars: the fairness of the reallocation of existing resources and the stabilization of the fiscal effects of privatization. This transitional experience confirms that only structural reforms leads to greater efficiency and faster economic growth (for example the Baltic countries and Poland who have executed faster structural reforms). EBRD transition indicators, as representative comparative indicators of performance and dynamics of institutional reforms clearly indicate the speed and success of the reform period, signaling to the areas and periods of reform stagnation in certain areas.

The main aim of paper is review of current performance and implementation process of economic and systemic reforms in the period from 2000 to 2012. using comparative analysis of the transition indicators, on the example of the Western Balkans transition economies. Starting from the primary objective, in order to more comprehensive and detailed study, with the introductory part and conclusion, the work makes a comprehensive review of the results, which include an analysis of the average value of each of the nine transition indicators for each of the five countries of the Western Balkans, in the reporting period since 2000 by 2012. With nine transition indicators are covered the most important elements of the market economy: enterprises, market and trade, financial institutions and infrastructure. In methodological terms, for making work, essential input source is relevant internet database of the European Bank for Reconstruction and Development. In addition to this, with the aim of better understanding the problems of research, the authors used a variety of literature as a theoretical basis. Also, it was necessary to be included in the analysis and graphical methods to make it easier to interpret numerical data. The paper analyzes the issues important for the evaluation of the transition process in the Western Balkans region, where are applied institutional and economic reforms. The research results of this review are a synthesis and analysis of data that allow us to understanding the problem from many different aspects, with emphasis on backwardness of the reform process in the individual countries of the Western Balkans.

Material and methods

Assessments of reform results economists of the European Bank for the Reconstruction and Development perform through the set of transition indicators, which are used to monitor development of reform in all transition countries, and progress is measured according to the standards in developed market economies. These indicators that cover nine areas relevant to the transition process are: large scale privatization, small scale privatization, governance and enterprise

restructuring, price liberalization, trade and forex system, competition policy, banking sector, non-banking institutions and infrastructure (consists of five sub-indicators: telecommunications, railways, roads, power sector and water supply and sanitation). The measurement is based on the scale of indicators ranges from 1 to 4+, where 1 represents little or no change from a rigid centrally planned economy and 4 + the standard in developed market economies. Each indicator is measured by the standards of developed market economies and shows a synthesized assessment of the progress achieved in a particular area, which is based on different statistic data, descriptive information and analysis. This work is inspired by the problems of reviewing performance results of conducting economic-system reforms in the Western Balkans. The aim of this work is to examine the progress of reforms in these countries with the help of the transition indicators, defined by the EBRD. Based on the value of each of the transition indicators from 2000 to 2012, available in the database transition indicators by countries, in this paper the authors are calculated the average value for the reference period for each specified indicator and for each of the Western Balkan countries. The obtained result highlights success in reform process of Western Balkans countries individually and relative to one another, assessing areas covered by the transition indicators.

Results

Large scale privatization in the period 2000-2012 in Albania most reached scale was 3.7 which held level by the beginning of 2010. In 2000, large-scale privatization indicator recorded a 2.7 scale height and until the onset of the global economic crisis held level scale 3.0. In the case of Bosnia and Herzegovina large privatization least scale indicators recorded in 2000 when it two and three years later recorded scale 2.3. Since the beginning of the global crisis by the end of 2012 it was maintained new scale indicator 3.0. In Macedonia, for the first four years of the period scale indicator was 3.0, which is the highest level of scale in the surveyed countries for the first four years of privatization. In Montenegro, the smallest scale indicator 1.7 recorded in 2000, but in the later years had a tendency to rise to 3.3 from 2012. The smallest scale indicator 1.0 in 2000 Serbia recorded, where the future growth of this indicator was moderate, and in 2012 stood at scale indicator 2.7, which shows that there is still space for large-scale privatization. The authors calculated that the average indicator Large scale privatization in the period 2000-2012 in Albania and Macedonia amounted to 3.2 (also the maximum scale of all the observed countries), Bosnia and Herzegovina 2.6, Montenegro 2.8 and Serbia 2.3.

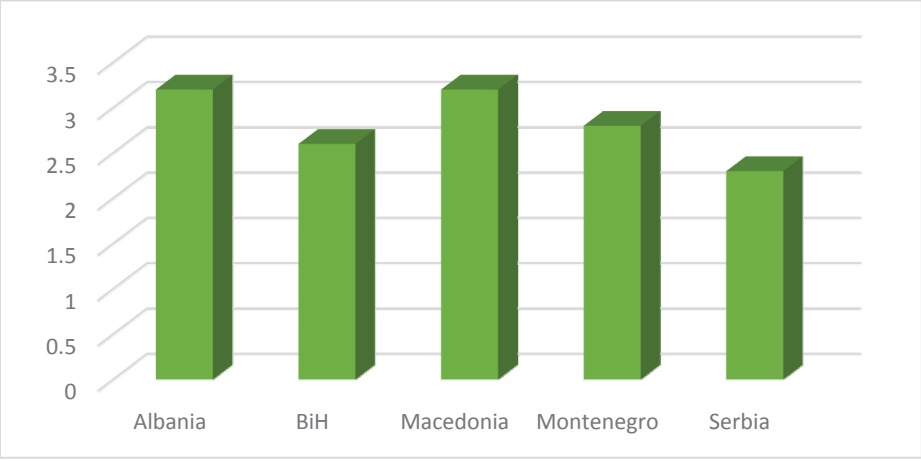


Figure 1: Large scale privatization, average transition indicator, Western Balkan countries, 2000-2012.

Source: authors calculation based on EBRD data

Small scale privatization in the period 2000 – 2012 Albania and Macedonia recorded scale indicator 4, which was constant for this year. The movement of this indicator in Bosnia and Herzegovina was lowest in 2000 when the scale was 2.3, but in 2001 it was 2.7 and after that there was an increase 3.0 which was retained until the end of 2012. In Serbia, small-scale privatization did not have higher rates, and in 2000 recorded scale indicators was 3 and twelve years later scale amounted to 3.7. The authors calculated that the average indicator Small scale privatization in the period 2000-2012 in Albania and Macedonia amounted to 4 (also the highest scale of all the observed countries), Bosnia and Herzegovina 2.9 (minimum scale), Montenegro 3.3 and Serbia 3.4.

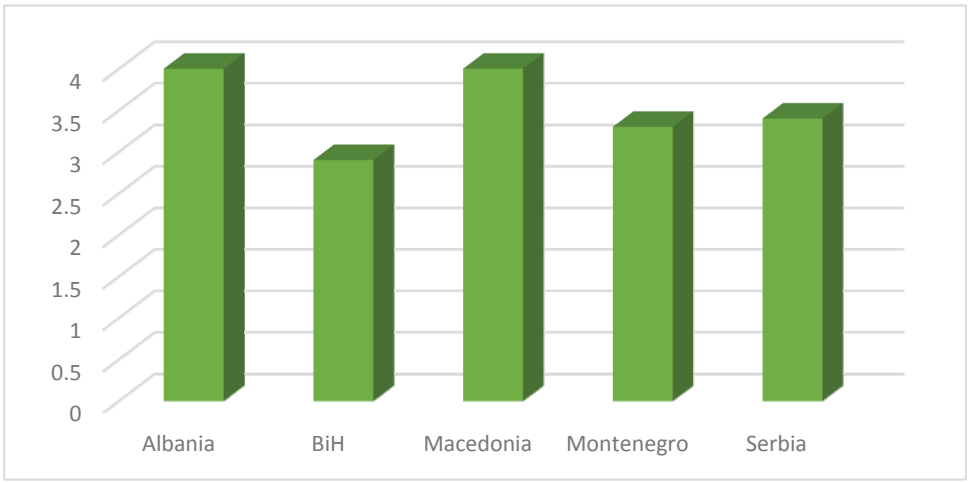


Figure 2. Small scale privatization, average transition indicator, Western Balkan countries, 2000-2012.

Source: authors calculation based on EBRD data

Governance and enterprise restructuring in Albania until 2005 recorded the scale indicator 2, where in the forthcoming years, there was an increase on 2.3. Bosnia and Herzegovina until 2002, recorded a 1.7 scale, rising to 2.0 in 2012. This indicator in Macedonia kept the scale at 2.3 until 2005, followed by growth of 0.3, so the level of 2.7 held by the end of 2012. The authors calculated that the average indicator Governance and enterprise restructuring in the period 2000-2012, the lowest was in Montenegro, where it amounted to 1.8, and then in Bosnia and Herzegovina 1.9, while in Albania it was 2.1, in Serbia 2.0 and in Macedonia 2.5.

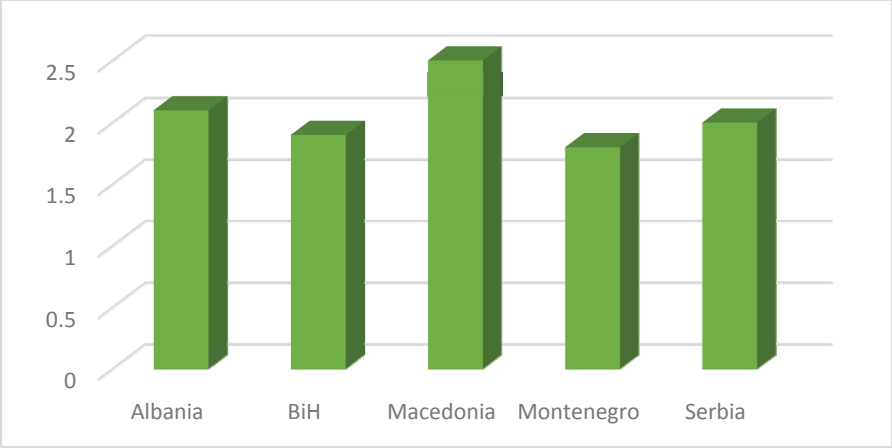


Figure 3. Governance and enterprise restructuring, average transition indicator, Western Balkan countries, 2000-2012.

Source: authors calculation based on EBRD data

Price liberalization in Albania held the level of the scale 4.3 and in Bosnia and Herzegovina 4.0 all twelve years. In Macedonia, the scale 4 in 2000 increased the level of 2003 to 4.3 which was held by the end of the period. Montenegro a level of scale 3.7 in 2000 increased to 4.0 in 2001, and it remained the same until the end of 2012, while Serbia's level of 2.3 from Serbia also increased in 2001 to 4.0, which is also held by the end of the period. The authors calculated that the average indicator Price liberalization in the period 2000-2012 was highest in Albania where the scale was 4.3, in Macedonia 4.0, in Bosnia and Herzegovina 4.0, in Montenegro 3.9 and in Serbia it was 3.8.

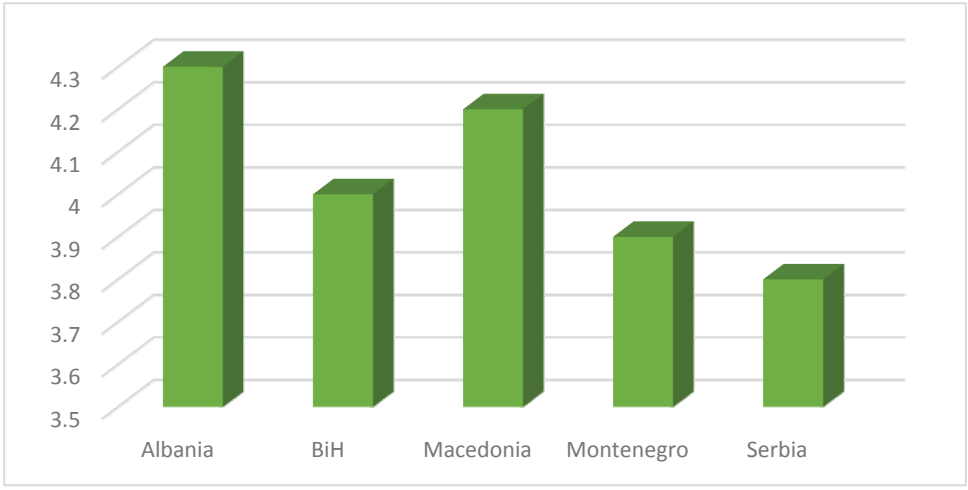


Figure 4: Price liberalization, average transition indicator, Western Balkan countries, 2000-2012.
Source: authors calculation based on EBRD data

Trade and forex indicator is observed for the twelve years in Albania amounted to scale 4.3, while Bosnia and Herzegovina in 2012 recorded a scale amounting to 3.1, with an increase of 0.6 in 2012. Macedonia marked the first three years of the period by the scale indicator 4.0, where the trend growth increased to 0.3 in 2012. Montenegro first analyzed year recorded the 2.3 scale, with an increase of scale 2 in 2012. The lowest indicator in 2000 Serbia recorded, when the scale was 1.0, but the good tendency of growth in 2012 has managed to increase the scale 4. The authors calculated that the average indicators Trade and forex in the period 2000-2012 was highest in Albania 4.3, in Macedonia 4.2, in Montenegro, 3.9, in Bosnia and Herzegovina 3.6, and the lowest in Serbia 3.2.

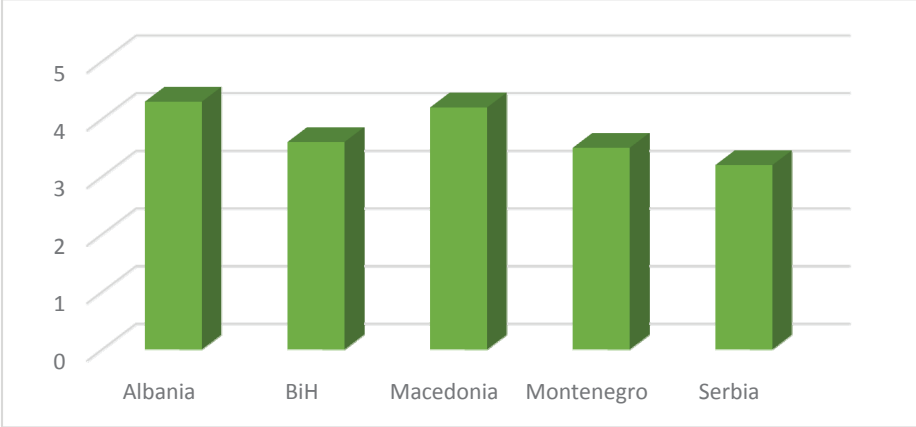


Figure 5. Trade and forex system, average transition indicator, Western Balkan countries, 2000-2012.
Source: authors calculation based on EBRD data

Competition policy in Albania was 1.7 in 2000 - 2013, which was the highest scale recorded 2011 when it stood at 2.3. In Bosnia and Herzegovina at the beginning of the analyzed period scale indicator was 1, and by 2010 increased by 1.3. Macedonia indicator Competition policy for twelve years increased by 0.7, and in 2012 it was 2.7, while in Montenegro it was increased by 1.0. Serbian Competition policy indicator was increased from 1.0 in 2000 to 2.3 in 2012. The authors calculated that the average Competition policy indicator in the period 2000-2012 was highest in Macedonia 2.2, while other countries recorded a low, scale in Albania was 1.9, in Bosnia and Herzegovina and Serbia 1.5, while Montenegro it recorded 1.4.

Figure 6. Competition policy, average transition indicator, Western Balkan countries, 2000-2012.
Source: authors calculation based on EBRD data

The banking sector in Albania and Bosnia and Herzegovina since the beginning of 2000 recorded 2.3 scale, the level of which it held until 2003 when there was an increase to 2.7. The highest level of the scale was achieved in 2008 when it stood at 3. In Bosnia and Herzegovina the banking sector had a similar tendency to increase except that the initial new scale was 2.7, with a tendency of growth in 2008 to 3. Montenegro in 2000 recorded a 1.7 scale indicators, which was already 2002 improved to 0.3, but in 2012 recorded a 3.0. Serbia in 2000 recorded the lowest scale of 1 indicator for the banking sector, but for twelve years has managed to blend with the other western Balkan countries with a scale 3. The authors calculated that the Average indicator of banking sector in the period 2000-2012 was highest in Macedonia 2.8, in Albania, Montenegro, and Bosnia and Herzegovina it was 2.6, while Serbia had the smallest average 2.4, which was presented at the upcoming Figure 7.

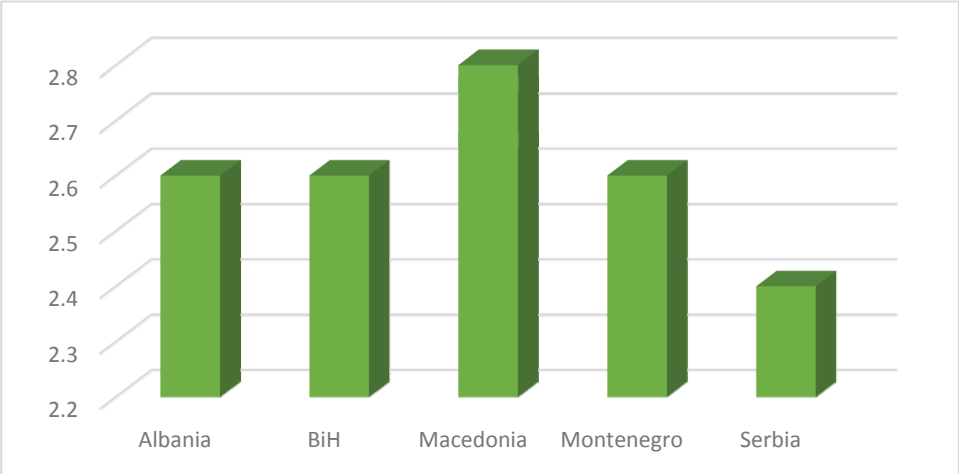


Figure 7. Banking sector, average transition indicator, Western Balkan countries, 2000-2012.

Source: authors calculation based on EBRD data

Non-banking financial institutions in Albania kept their level of scale 1.7 until 2011, when the level of the scale increased by 0.3, while in Bosnia and Herzegovina level of the scale at the beginning of 2000 was slightly lower 1.0, but in the period up to 2012 increased to 2.0. Macedonia as well as Serbia achieved the highest level of the scale of 3.0 in 2012, although in 2012 Serbia recorded a level of 1.0 scale, and Macedonia 1.7. Montenegro's level of 1.0 from 2000 to 2012 rose to 1.

The authors calculated that the average indicator of non-banking sector in the period 2000-2012 was the highest in Macedonia 2.1, in Serbia 1.9 while slightly lower in Albania it was 1.7, in Bosnia and Montenegro 1.6, which is represented in Figure 8.

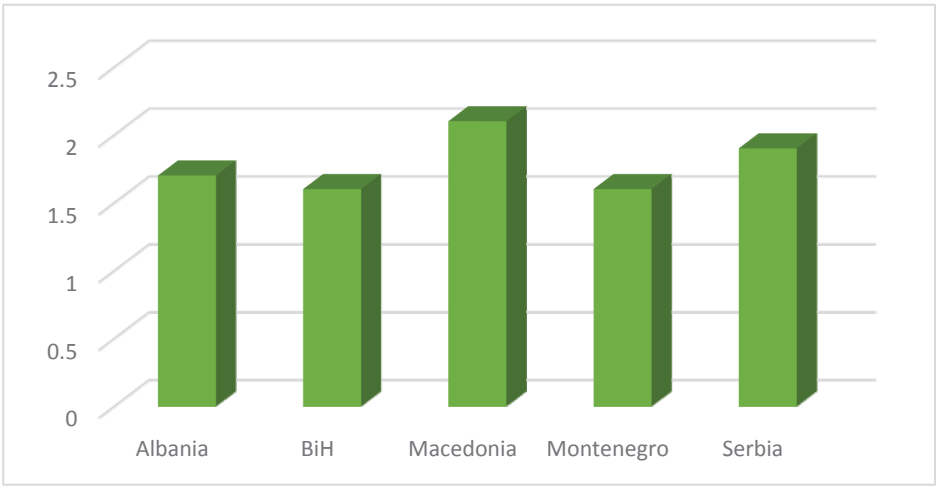


Figure 8. Non-banking sector average transition indicator, Western Balkan countries, 2000-2012.

Source: authors calculation based on EBRD data

Infrastructure in Albania, and Bosnia and Herzegovina in 2000 on a scale indicator was 2.0, but by 2012 recorded a growth of 0.5 as opposed to Macedonia and Serbia, which in the same period increased scale from 2.0 to 2.7. Slightly smaller scale was recorded by Montenegro, which with 1.3 in 2000 managed to raise the scale by 2012 to 2.5. The authors calculated that the average

indicator of Infrastructure in the period 2000-2012 was the highest in Montenegro 2.5, in Bosnia and Herzegovina and Macedonia it was 2.3, in Albania and Serbia 2.1, which is represented in Figure 9.

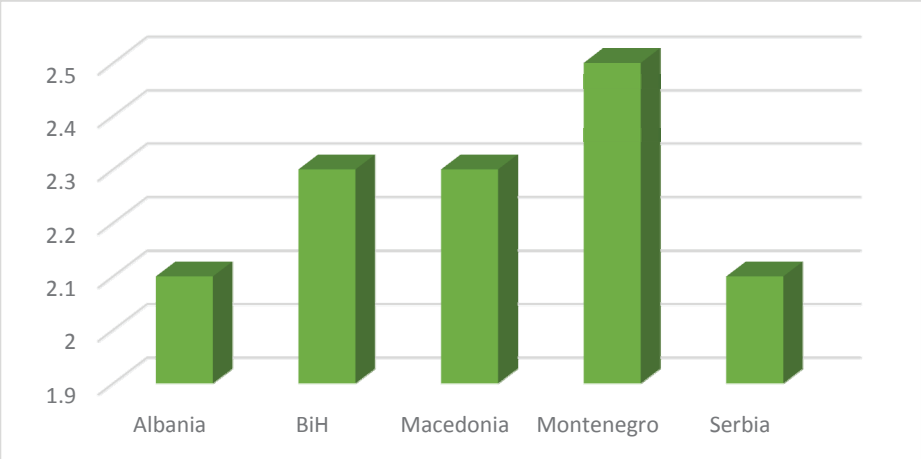


Figure 9. Infrastructure, average transition indicator, Western Balkan countries, 2000-2012.
Source: authors calculation based on EBRD data

The process of conducting economic-system reforms in Albania measures transition indicator indicates the trend of growth in the period since 2000, when it stood at 2.7 to 2.9 during the outbreak of the global economic crisis, and in the period after that, it grew so that the average value of the indicator for 2012 amounted to 3.1. In Bosnia and Herzegovina has also established a trend of growth since 2000 from 2.1 to 2.7 at the time of the outbreak of the global economic crisis, but by the end of 2012. Macedonia also recorded an increase of 0.1, a growth trend from 2.9 in 2000 to 3.1 in the time of crisis, which continued to grow at 3.3 in 2012. Montenegro recorded the highest growth of the average transition indicator when the scale 1.7 in 2000 recorded a growth of 2.3 in 2012. The process of implementing economic-system reforms in Serbia measured by transition indicator indicates the trend of growth in the period since 2000, when it stood at 1.5 to 3 at the time of the outbreak of the global economic crisis, and in the period after that, it grew so that the average value of the indicator for 2012 amounted to 3.16. The authors of the study concluded that the total average transition indicator in the Western Balkan countries in the period 2000-2012 that the highest was recorded in Macedonia 3.1, in Albania 2.9, in Montenegro 2.6, while Bosnia and Herzegovina and Serbia was recorded 2.5.

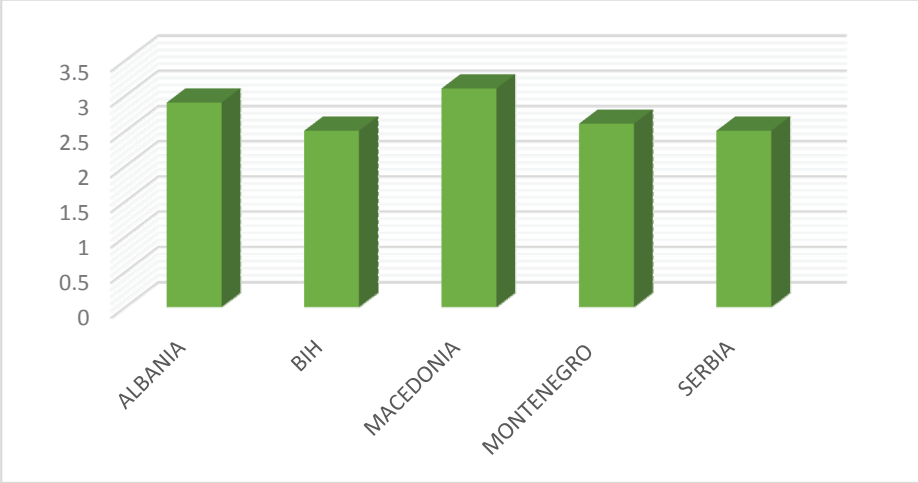


Figure 10. Western Balkan countries, average transition indicator, 2000-2012.
Source: authors calculation based on EBRD data

Based on the average of indicators for each country it could be expected to achieve total average indicators for the observed Western Balkan countries in the period 2000-2012 and it would amount to 2.72, or middle level of the scale, which further indicates the average dynamics of progress and performance any research transitional reforms. If we calculate the total for each indicator the average value for all countries, we will come to the image that some economic segments covered by the transition indicators at the regional level and for all the observed Western Balkan countries were successful (Figure 11).

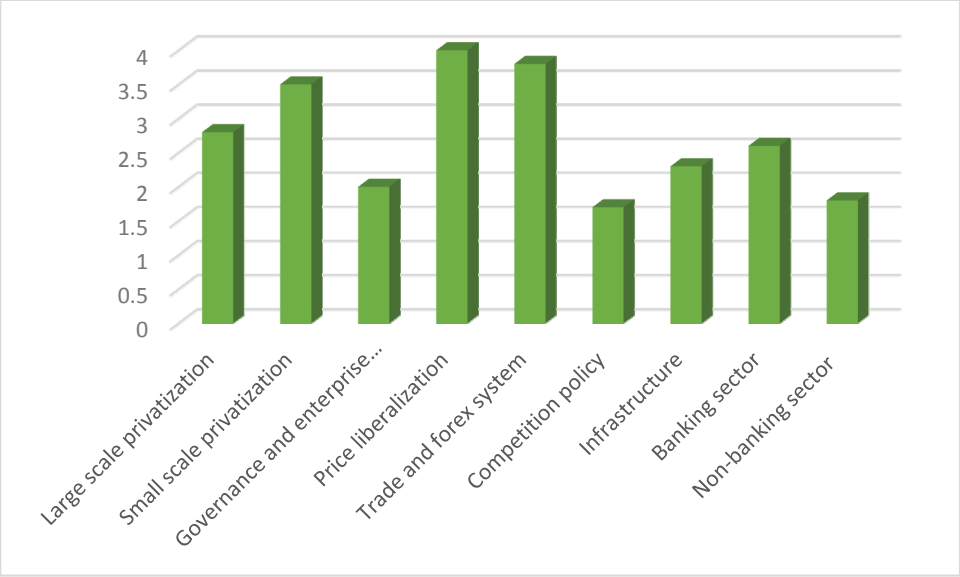


Figure 11. Western Balkan region, transition indicators, average value, 2000 - 2012.
Source: authors calculation based on EBRD data

The budget presented to the previous graphic display number 11 gained the following average values of transition indicators: price liberalization 4.0, trade and forex 3.8, small privatization 3.5, large privatization 2.8, banking sector 2.6, 2.3 infrastructure, governance and enterprise restructuring 2.0, 1.8 non-banking sector, competition policy 1.7.

Conclusions and Recommendations

With this study based on the budget of the average value of all nine individual transition indicators, which eventually confirmed the overall average transition indicators, the authors have clearly come to a few conclusions. According to most of the calculated individual transition indicators in the observed period Macedonia is the most successful country, which stands out in terms of values of transition Governance indicators and enterprise restructuring, Competition policy and Non-banking sector which achieved the best results. It eventually was confirmed by the highest average transition indicator among the surveyed countries. Besides Macedonia, higher values of individual transition indicators compared to other countries Albania has, which features prominently in the analysis of trade and forex system and Price liberalization. Other countries Serbia, Bosnia and Herzegovina, and Montenegro, according to these calculations have lower values, which show that there are slower and more ineffective implementation of the transition reforms compared with Albania and Macedonia in particular. In almost all observed the transition process monitoring segments through indicators, Serbia is the worst positioned, while at positive result in terms of infrastructure Montenegro is emphasized. According to the overall average values of individual indicators, several conclusions and recommendations were performed. In terms of price liberalization, trade and privatization of the small enterprises, analyzed the Western Balkan countries achieved the best results in the period 2000-2012 and it could be said that the results are satisfactory. Transition indicators in the areas of large-scale privatization, banking sector and infrastructure point to the middle level of performance, where it could be concluded that there is space to achieve better results in the transition progress. Finally, governance and enterprise restructuring, non-banking sector and competition policy have a very low value of the indicator, which shows the disastrous results. The authors concluded that the condition viewed through the transition indicators insists on the need to have much more to do in these areas. Based on the calculated values, most transition indicators for the countries of the Western Balkans have a space for improvement, which could and must be implemented as soon as possible and as efficiently as possible. This is particularly true in Bosnia and Herzegovina and Serbia that are the worst placed in this analysis and very late in comparison to other transition countries in the Western Balkans region. On the other hand, the non-banking sector and competition policy are areas in which all countries have nothing to be proud of, and which represent a space for finding better solutions. Transition indicators for the reference period give us a cross-section of the trend movement in the period of 2000-2012 which brings us to the current situation, which is the starting point and has implications for future development. Current picture and trend of progress economic-system reforms in the Western Balkans seen through the average values of transition indicators is very useful, in order to find optimal solutions for its economy, which will lead to economic growth and macroeconomic stability. Results and comparative analysis indicated the transition indicators that are on the low level of the scale, which indicates that the improvement is essential and necessary. These results are important because they point to the plight of the slow progress of certain areas in some countries of the Western Balkans, which imposes the need for immediate action that will lead to improved macroeconomic performance.

Literature

1. European Bank for Reconstruction and Development, *(2015), Forecasts, macro data, transition indicators* - http://www.ebrd.com/what-we-do/economic-research-and-data/data/forecasts-macro-data-transition-indicators.html
2. International Monetary Fund (2014), *25 Years of Transition Post-Communist Europe and the IMF*, http://www.imf.org/external/pubs/ft/reo/2014/eur/eng/pdf/erei_sr_102414.pdf
3. Lin, J. (2009), Economic Development and Transition: Thought, Strategy and Viability, Cambridge University Press, Cambridge, UK
4. Serbian Economic Forum (2015) - http://www.sef.rs/uporedna_ekonomija/metodologija-evropske-banke-za-obnovu-i-razvoj.html
5. European Bank for Reconstruction and Development, *The Western Balkans: 15 Years of Economic Transition* https://www.imf.org/external/np/seminars/eng/2015/vienna/pdf/Presentation_EBRD_Sanfey.pdf
6. Transition Report 2013, European Bank for Reconstruction and Development – EBRD www.ebrd.com/documents/comms-and-bis/pdf-transition-report-2013.pdf
7. *The Western Balkans in transition*, European Commission, Directorate-General for Economic and Financial Affairs, http://ec.europa.eu/economy_finance/publications/publication1014_en.pdf

KAZAKHSTAN'S STRUGGLE FOR DIVERSIFICATION: IS INDIRECT INDUSTRIAL POLICY A PROSPECTIVE STRATEGY? A ROBUST POLITICAL ECONOMY ANALYSIS

*Jürgen Wandel**

Abstract

The key challenge for economic policy in Kazakhstan is seen in reducing its heavy dependence on oil and diversifying the economy in order to avoid the "resource curse." In 2013 the Asian Development Bank provided a policy advice to the government of Kazakhstan advocating an indirect industrial policy. The paper analyzes the prospects of this modernized industrial policy approach applying a robust political economy framework. It explains why the implementation of an indirect industrial policy lacks robustness even though this approach is aware of the knowledge and incentive problem. It is argued that the theoretical case for indirect industrial policy is weak and that the concept itself is too fuzzy to give policy makers clear guidelines. It is contended that reframing the issue from picking winners to picking marked failures is still a form of targeting. As such it is prone to the same fundamental problems as previous approaches. It is then shown in which institutional context diversification policy is more likely to yield beneficial outcomes in Kazakhstan.

***Keywords**: Diversification, industrial policy, Kazakhstan, political economy, Austrian economics.*

World Economy Research Institute, Warsaw School of Economics (SGH), Poland. E-mail: jwandel@gmx.de

"There is no other choice: government either abstains from limited interference with the market forces, or it assumes total control over production and distribution. Either capitalism or socialism; there is no middle of the road"

(Ludwig von Mises, 1976/1996, p. 26)

1. Introduction

Kazakhstan's economic development in the last 15 years is a success story in the Commonwealth of Independent States (CIS). Since 2000 GDP grew in real terms at an annual average growth rate of 7.2% and per capita GDP crossed the threshold of US-$ 13 000 by 2013 making it an "upper middle-income country" by the World Bank classification (World Bank 2015).

This impressive economic development is usually attributed to sound market-oriented economic reforms and in particular to favorable world market conditions for oil and gas (Wandel, 2009). Kazakhstan is the second-largest oil producer in the CIS after the Russian Federation and the 17th largest in the world. This hydrocarbon sector represents about 25 % of GDP, 51 % of total industrial output, and approximately 60% of the country's total merchandise exports. All mineral products together account for even 80 % of total exports (OECD, 2014, p. 51). Following the definition of Ahrend (2006), these indicators classify Kazakhstan as a resource-based economy.[1]

From early on Kazakhstan's government has declared reducing this heavy resource dependence of its economy through diversification the top priority of economic policy. With that it wants to be prepared for the time when reserves expire or prices severely drop and to avoid falling prey to the "resource curse" and the "middle-income trap" (State Program on industrial-innovative development of Kazakhstan for 2015-2019). The central and controversially debated question in this context is the appropriate role of the government in the diversification efforts.

Following the 1997 long-term development strategy "Kazakhstan 2030" the government has embarked on an increasingly interventionist diversification strategy. It has devised a series of billion dollar industrial policy programs with quantitative goals and a timetable for reaching them, priority areas for development, and potential tools for achieving a diversified and competitive economy.[2] These tools are predominately subsidization schemes which are managed by state-owned national holding companies. However, the outcome of all these diversification efforts has fallen short of expectations. According to a recent study by the Asian Development Bank (ABD, 2013) Kazakhstan's economy is even less diversified today than it was 10 years ago. Against this background the new long-term strategy "Kazakhstan 2050" of December 2012 calls for intensified efforts to boost diversification in order to make Kazakhstan one of the world's thirty most developed states by 2050 and triple the share of non-energy export in total export by 2040.

[1] According to the definition of Ahrend (2006) a country's economy is resource-based if natural resources ac count for more than 10% of GDP and 40% of total exports.

[2] The most important of these development programs was the 2003 "Innovative Industrial Development Strategy of the Republic of Kazakhstan for 2003–2015", which in 2009 was supplemented by the State Program on the Accelerated Industrial– Innovative Development of the Republic of Kazakhstan, 2010–2014 (SPAIID). In 2004 the government launched the project "Diversification of Kazakhstan's Economy through Cluster Development in Non-Extraction Sectors of the Economy". This initiative was complemented in February 2007 by the program "30 Corporate Leaders of Kazakhstan".

In 2013 the Asian Development Bank provided a policy advice to the government of Kazakhstan on how to modernize its diversification policy. Referring to theoretical arguments which most prominently have been put forward by the Hausmann-Rodrik team at Harvard University, but also Joseph E. Stiglitz the ABD advocates an "indirect industrial policy". Other authors denote it as new (Ahrend, 2006; Rodrik, 2008) or market-driven (Weiss 2011). This is understood as a middle way between a free market economic policy and rigide government dirigisme for shaping the sectoral composition of an economy based on an equal partnership

between the public and private sector. Rather than picking winners directly the government's role shall be limited mainly to facilitating, coordinating and risk-sharing tasks. Meanwhile, Kazakhstan's government has passed new sectoral development programs for the manufacturing industries and for agriculture in an attempt to implement a modernized diversification policy as it was stipulated in "Kazakhstan 2050".

This paper analyzes the prospects of this modernized industrial policy concept as advocated by its proponents and tried to be outlined in the government's latest sectoral development programs to achieve greater efficacy in promoting a broad-based sustainable economic growth in Kazakhstan than the previous policy. For this it applies a robust political economy framework. It allows to check the feasibility of a policy approach by examining (1) if the economic and political actors are able to gather and analyze the relevant information necessary for achieving the desired goals (knowledge problem) and (2) if they have the incentives to refrain from destructive rent-seeking behaviour (incentive problem).

The remainder of paper is organized as follows. Section 2 develops the notion of robust political economy in a little more detail. Then section 3 analyzes the theoretical foundations and the suggested policy measures of the indirect industrial policy concept through the lens of robust political economy. Section 4 examines to what extent Kazakhstan's most recent development program for manufacturing follow this concept and is robust. The final section 5 concludes and offers alternative policy implications.

2. The Robust Political Economy framework

The robust political economy framework checks the feasibility of a policy approach in the face of conditions that deviate from the neoclassical ideal assumptions of perfect knowledge and benevolence. The assumption of omniscience was questioned most eloquently and persistently by Friedrich August von Hayek from the Austrian School of Economics, the assumption of government benevolence by the Public Choice School of economics, in particular James Buchanan and Gordon Tullock. A further building block of this analytical framework is institutional economics. This strand of economics has demonstrated that when market and political actors have imperfect knowledge and motivations, growth relies crucially on the right the rules of the game as they structure the incentives underlying individual action and thus determine if people engage in productive, unproductive, or destructive behaviour (Baumol, 1990).

With regard to Kazakhstan's diversification efforts the knowledge problem addresses the question: Even given benevolence, who has the knowledge necessary to promote competitiveness of non-oil sectors - scientists and politicians or private entrepreneurs? According to Hayek (1945) and Kirzner (1973, 1997) it is definitely the latter. As Hayek (1945) explains, the knowledge of what's needed, who needs it, and who has the means to meet these needs is dispersed and fragmented among the millions of individuals who compose society and often held in inarticulate forms. Moreover, the cognitive abilities of every human being to capture and process all of this scattered information are limited. Therefore, it is held impossible that a centralized body of experts and politicians is able to gather in its totality the knowledge required to find out promising technologies and markets.

This information can only be generated and transmitted by market competition through profit-and-loss feedbacks and the changes in relative prices. These profit-and-loss feedbacks provide the necessary incentive for individuals to acquire constantly new knowledge about consumer needs and the best way how to meet them. If they do it successfully they are rewarded by profits; otherwise they suffer losses which urge them to correct their errors. This is why Hayek (1978) called competition a "discovery procedure." Kirzner has emphasized, that the driving force in this discovery procedure are not governments but alert private entrepreneurs. Because the latter invest their own resources, they must be careful and astute when making investment decisions. In contrast, government bodies are generally institutionally precluded from capturing pecuniary profits in the

course of their activities (Kirzner, 1978). Usually they use taxpayer money and do not face bankruptcy in the case of long-term losses. The results are malinvestment.

The central question underlying the incentive problem is: Even assuming omniscience, do political actors really have the inducement to undertake those policies that promote broad-based sustainable economic growth or are they enticed to favour one group the expense of others without creating new wealth? Public choice theory argues that in the real world, government officials are often not benevolent, but pursue retention of power, higher salaries, benefits, and social status. As Baumol et al. (2007) showed there are two major shortcomings inherent to any form of state-guided economic development: the promotion of rent-seeking and the susceptibility to corruption. The more the government intervenes and allures with subsidizes, the more people will be induced to divert investment from better serving consumer needs to influence politics to obtain and maintain these benefits (Buchanan 1987). They are valuable to firms because they give the recipient favorable advantages over competitors that do not receive the same benefits. Therefore, companies will actively work to signal to policymakers that they are a worthy target. Businesses will also try to actively influence the policy agenda to encourage the government to offer more such rent opportunities. As a result, productive activities are superseded by unproductive or even destructive activities (Baumol, 1990). Therefore, politicians' self-interest, combined with the limits to their knowledge, raise serious doubts that they will and can produce the ideal blackboard outcome of their economic advisors (Kirzner, 1978).

Since the incentives for political and economic actors are shaped by the rules of the game the way they are arranged is crucial to achieve robustness. These rules should be able to constrain self-interested government representatives in such a way that they cannot do much harm, if they only strive to maximize their own utility and if they possess only limited information. Following the insight of Hayek this ability can best be achieved if rules are universal-izable, i.e. general. This means, they must be applicable to unknown and indefinite number of persons and cases (Hayek, 1973). If rules are general, it is less likely that interest groups will be able to receive privileged treatment at the detriment of society, because legislation promising special treatment will be impossible.

An open question is, of course, how to assure that political decision-makers really enact only such legislation that passes the universalizability test. This would require appropriate provisions at the constitutional level. However, in many cases, this is simply not in their self-interests. Nevertheless, this points to the important insight that economic development does not only depend on the rules of the game for the economy but also for the polity. Most recently, this issue has been taken to the centre stage by Acemoglu and Robinson (2012) in "Why Nations Fail".

Hence, there are two central problems that all policy advices have to take into account and try to mitigate, namely (1) the knowledge problem and (2) the incentive problem of decision-makers to implement policies that increase social welfare. Economic policies are only then robust, if the proposed goals are not undermined by either the difficulties to capture the
relevant information necessary for achieving the desired goals or/and by the self-interested behaviour of decision-makers gaming the system to their own advantage. So before Kazakhstan's government is empowered to take an active role in no matter what form in order to speed up diversification, it should be shown that this government solution is not only superior to the market outcome no matter how imperfect they are but also consistent with political incentives.

3. The indirect industrial policy concept

Proponents of an indirect industrial policy principally appreciate the role of the market system in the efficient allocation of resources and even acknowledge the existence of the knowledge and incentive problem, which makes the implementation of industrial policies difficult (Rodrik, 2008; ADB, 2013). However, they believe that these problems can be mitigated through appropriate institutional designs. The need of industrial policy is not questioned.

3.1. From picking winners to market failures

While traditional industrial policy was about pick winning industries or companies, indirect industrial policies has the ambition to remove market "failures" in a sector-neutral way, at least in theory. It focuses in particular on two market failure: coordination failure and information externalities (ADB, 2013).[3] These failures are considered to be pervasive and responsible for the inability of market prices to "reveal the profitability of resource allocations that do not yet exist" (Rodrik 2004). So they blunt the incentives for broad-based economic growth.

Coordination failures are said to occur when profitable investment in one sector depends on profitable investment in another complementary sector (Hoff, 2001). Entrepreneurs are likely to invest in new high-value ventures only if they can be sure that other people will invest in business projects that complement their own investment. But when they lack that confidence, a collective action problem will ensue in which it is in no one's interest to break from the status quo. It is argued that this failure to coordinate limits the ability of markets to identify and achieve the most socially beneficial long term development path of activities. This would even be the case when economic institutions work properly (Rodrik 2008).

Information externalities are assumed to occur, because knowledge is held to be a public good. It is argued that entrepreneurs who discover profitable novelties signal to other entrepreneurs profit opportunities, and the latter can free-ride on the efforts of the former by observing and obtaining for nothing what they would otherwise have to search for incurring costs. The market failure is seen to consist in the deficiency to internalize this information externality even if there were effectively enforced patents or strictly preserved secrecy. Therefore, it is feared that markets left to their own devices may provide insufficient incentives to invest in an 'optimal' amount of information, which results is insufficient innovation (Grossman and Stiglitz, 1976).

From this diagnosis follows the conclusion, that industrial policy must be a central part of any development strategy with the government providing adequate incentives to bring about the needed investment to move the economy towards new activities (Hausmann and Rodrik, 2006; Greenwald and Stiglitz, 2014).

3.2. Objections to the market failure argument

From a robust political economy perspective, these market failure arguments are questionable not only for the practical difficulties to identify, value and remove these failures in real-world markets, but also on theoretical grounds. All market failure arguments are anchored in the benchmark model of perfect competition, which portrays competition as an allocation mechanism leading to completely predictable outcomes in in the form of market equilibrium. However, this is an unreachable utopian ideal. If compared to this ideal, real-world markets must necessarily "fail" all the time, because they are never in perfectly competitive equilibrium (Carden and Horwitz, 2013).

According to Austrian economics the market mechanism does not possess a single set of goals against which one can compare its performance (Buchanan and Vanberg, 1991). Therefore, for lack of benchmark markets cannot fail. As noted, competition is primarily understood as a discovery procedure, the concrete outcome of which is unpredictable. If it were, competition would be unnecessary. From this follows that no one can announce that one can improve the performance of the market to bring about a desirable sectoral composition (Kir-zner, 1978). For Hayek (1990, p. 169) the pretence to know this is "the extreme of hubris. Guided progress would not be progress."

[3] This rationale for industrial policy in economic development goes back to the works of scholars like Rosen-stein-Rodan (1943), Myrdal (1957) or Murphy et al. (1989). More recent prominent advocates of industrial policy are e.g. Rodriguez-Clare and Klenow (2005), Hausmann and Rodrik (2003, 2006), Rodrik (2004, 2008, 2013), Stiglitz (2001) and Greenwald and Stiglitz (2014).

It is further argued that in order to perform its discovery function market competition does not

need to be perfect (Hayek, 1990). On the contrary, as Kirzner (1973) showed, it is precisely these so called “market failures” that offer an unexploited profit opportunity for entrepreneurs. So mismatches between economic subjects are at best temporary and an integral part of an ongoing market process that iterates towards a greater degree of coordination. It is the market process itself that over time corrects unsatisfying states of affairs and effectively improves coordination, because it itself “engenders the incentives and information necessary to discover and correct its own maladjustments in the allocation of resources” (Sautet, 2010, p. 87).

Thus, given this profoundly different understanding of the role and functioning of market competition from a robust political economy perspective the theoretical case for an industrial policy trying to pick coordination and information failures is weak. Any additional incentives for private entrepreneurs to guide them in a certain direction are therefore superfluous. The only things that are both necessary and sufficient to make the discovery process of the market work are favorable institutional conditions for private entrepreneurship based on the principle of universalizability. This means above all freedom to entry, secure private property rights, an effective, impartial rule of law as well as a tax system that does not confiscate away profits (Kirzner, 1978).

3.3. Suggested policy concept and measures

In order to alleviate the knowledge and incentive problem indirect industrial policy proponents advocate a close and continuous collaboration between the private sector and the government (ADB, 2013; Weiss, 2011), thereby taking into account the three general principles which have been suggested by Rodrik (2008): (1) embeddedness, (2) carrots and sticks and (3) accountability. The first principle addresses exclusively the knowledge problem, the second the knowledge and the incentive problem, and the third refers only to the incentive issue.

In order to elicit the market “failures” that are assumed to block structural change proponents of indirect industrial policy suggest public officials and private businessmen to mimic the Hayekian-Kirznerian discovery process. The free market shall be substituted for collective experimentations in resource allocation on the basis of concerted actions between key public and private actors. Hausmann and Rodrik (2003) call this the ‘self-discovery’ model and Ro-drik (2008, p. 19) with reference to Evans (1995) embeddedness. The government shall be embedded in private-sector networks with institutionalized channels for the continual negotiation and renegotiation of goals and policies on an equal basis, because the government itself has only a vague idea at the outset about what activities deserve support and what instruments to use. This shall reduce information asymmetry and ensure that industrial policy is not merely “a list of policy instruments” as in the old top-down model, but becomes itself a process of discovery about the constraints for private investment and the appropriate policy tools (Ro-drik, 2008; Greenwald and Stiglitz, 2012).

For the institutionalization of embeddedness various forums on the national and regional level are suggested where government officials, private entrepreneurs and experts from academia regularly meet, e.g. deliberation councils, investment advisory councils or private-public venture funds (Rodrik, 2008). However, when it comes to the concrete role of the government in these forums the recommendations are quite vague. According to Weiss (2011) and Hausmann et al. (2008) the government should act basically as a “facilitator” or “coordinator” and not engage directly in the selection of the objects for support. It should mainly promote research and development and human capital building and take a risk-sharing role. Support should be made available to all firms affected by the market failure not to a selected few. The ADB (2013) takes a more nuanced stand on the role of the government depending on the level of development of the economy. Only in higher-income economies the government should mainly concentrate on facilitating tasks, whereas in low-income economies it should take a leading and much more active role in the selection process. In more mature economies private financial institutions are expected to play a key role in the selection process, while the government basically only makes the public resources available. This shall reduce the likelihood that investment flows to uneconomical projects.

Even more unspecified and sometimes contradictory to the very idea of an *indirect* industrial policy are the recommendations for the policy instruments that are held appropriate to remove the "market failures". They comprise improvements in the institutional business environment, the public provision of infrastructure, private-public partnerships as well as many tools known from traditional industrial policy. The latter include tax breaks, subsidized credits, guarantees, equity stakes or state-owned development banks (Weiss, 2011; ADB, 2013). Other scholars even propose protectionist measures, in particular the undervaluation of the exchange rate (Rodrik, 2008; Greenwald and Stiglitz, 2012).

All these measures that shall encourage investment are denoted in the Hausmann-Rodrik "self-discovering" model as "carrots" and correspond to the profits in the discovery process of the free market. Equal to the losses are "sticks". They shall act as credible commitments of the government to weed out on time projects that fail and help minimizing a waste of public resources. The sticks can take the form of conditionality (e.g. conditioning export subsidies the on performance in world markets), built-in reviews (i.e. an incentive expires unless a review recommends that it be continued) or sunset clauses to phase out support after an appropriate amount of time has elapsed.

The carrot-and stick approach has also a political economy dimension. A big danger of this dialog-based interaction of the government with the private sector is that business might "game" the government in order to get access to rents. On the one hand the government must rely on information provided by businesses about major obstacles to development in certain industries, because it is not omniscient. On the other hand, as explained above, if firms know that the government is willing to provide support then they have any incentive to distort information strategically for their own advantage in order to capture the government benefits.

They may claim to be exposed to market "failures" although, in fact, there is none, so that the knowledge about true market "failures" is hard to come by. Thus, the incentive problem is inseparably connected with the knowledge problem.

To safeguard against such regulatory capture Hausmann and Rodrik (2006) advocate more transparency and accountability (see also Rodrik 2008), in particular mandatory through regular reporting on the activities and expenditures of development institutions. It is held essential that there is a "principal", preferably a cabinet-level politician, who closely monitors the support activities, explains the agenda to the public and bears political responsibility for successes and failures.

3.4. Pitfalls for policy makers

At first sight, the suggested policy concept with its three general principles seems to be quite robust. However, upon closer reflection, it turns out to be a fuzzy concept with pitfalls for practical diversification policy.

The fuzziness of the concept emerges not only from the practical difficulty to pin down market "failure", but also from the imprecise definition of "facilitation" and hence the role of the government and, closely related to that, from the huge spectrum of possible appropriate policy tools. This gives users unlimited scope in their application of the concept. At one extreme, if the role of the government remains really restricted to moderation and the elimination of institutional barriers to business across all sectors indirect industrial is actually identical to classical generic economic policy and highly robust. At the other extreme, if the government takes leading role and applies mostly subsidy schemes and trade measures new cannot be isolated from traditional industrial policy. The meaning of "intelligent intermediate stand" is highly elastic and lies in the eye of the beholder. As a result, policy makers lack clear policy guidelines how to implement indirect industrial policy. Yet, many of the recommended policy tools are inherently selective unless they

consist of the provision of universal rules for all.

While also rules of the game can be applied selectively, the need to target is obvious in the case of budgetary tools, because the financial resources of the government are typically limited. Therefore, policy makers unavoidably are “doomed to choose” (Hausmann and Ro-drik, 2006). This, however, requires additional knowledge about who is really worthy of getting the support. So, in fact, indirect industrial policy must overcome a twofold knowledge problem. First, the coordination and information “failures” that block broad-based growth must be detected, which is a tricky challenge of its own. Therefore in practice it is often reduced to picking certain industries. Second, it has to be found out, who is more worthy or needy of support. This requires plausible criteria to divide between worthy and unworthy activities.

The most common proposal is confining support only to successful ventures, e.g. to firms that export (Rodrik, 2008). From the robust political economy perspective this criterion is highly questionable. Why should the government give those who have demonstrated their superior ability in serving consumers’ needs on export markets receive an additional reward paid by the tax payer? No less problematic is the opposite approach – financing of those projects that have been rejected by private lenders. This obviously indicates that the project is not profitable. In both cases the market process has already done its job perfectly well. Therefore, any attempt to complement it with government “carrots and sticks” is redundant.

Given there was a convincing reason for subsidization, tools like sunset clauses and a constant monitoring process could in principle alleviate the danger of wasting public resources. However, in reality it often turns out to be politically difficult to stop unprofitable

projects, because “either governments don’t want to lose face, or, more commonly, politically powerful interest groups impede the ability of governments to abandon their interventions” (Baumol et al., 2007, p. 70). The above mentioned tools in the context of sticks, accountability and transparency are only feasible with a government that is strong enough to resist such pressure and is ready to bear the political costs. But if we assume self-interested political actors then they may find always excuses for why a policy has not worked and that it should be continued rather than phase out. Reality is full of such examples. How much transparency can be achieved also depends on the political system. Authoritarian regimes are usually more reluctant to the uncontrolled free flow of information than democracies. This is also what critical observers report from Kazakhstan (Nellis, 2014). But even in democracies politicians are not necessarily interested in publishing information that may put into question their policy approach. Even if they cannot prevent publication, it does not automatically lead to policy changes.

Hence, also with regard to the incentive problem indirect industrial policy lacks real robustness. It actually can only work if the governments were composed of individuals who had only the public welfare in mind. Still, the most effective way to minimize rent-seeking, corruption and the misallocation of resources is to provide as few opportunities as possible to obtain income transfers.

5. Kazakhstan’s new industrial-innovative development program

Kazakhstan’s latest State Program on industrial-innovative development of the Republic of Kazakhstan for 2015 - 2019 illustrate many of the points made in the previous chapter, in particular the practical difficulties for policy makers to put in to practice the concept of an indirect or new industrial policy in a real-world economy due to its fuzziness and many pitfalls.

This new program is explicitly considered as “the logical continuation of The State Program on Forced Industrial-Innovative Development of Kazakhstan (SPFIID) for 2010-2014.” Not surprisingly, its basic concept and policy measures hardly differ from its predecessor. Although

formally it pays heed to the basic requirements for indirect industrial policy as laid down by its theoretical proponents, it has a highly selective character.

In order to promote the competitiveness of manufacturing industry in Kazakhstan, it defines four policy objectives and sets benchmarks to measure the success of this effort. The major aims are output growth in the manufacturing industry by 43%, the increase of employment by 29.3 thousand people and the rise of export not less than 1.1 times. For the implementation of the program the national budget will provide 1 717 billion tenge over the period 2015-2019. Given this limited amount of resources the government necessarily must select sub-sectors within this industry to support. The selection criteria for solving the "doomed-to-choose-problem" are taken from the instruction in the new long-term strategy "Kazakhstan-2050" (part III. point 1) "to support only those industries that execute socially important, strategic functions and can demonstrate their effectiveness", i.e. it is indispensability for the national economy and positive economic performance.

Altogether the Program lists 14 manufacturing industries eligible for support. Strangely, in contrast to the demand in Kazakhstan-2050 to develop new industries the list contains exclusively "traditional" industries like the iron and steel industry, food production, chemicals industry or machinery industry. For each of the selected industries the Program contains a detailed action plan with goals and benchmarks. The goals are usually defined in terms of output and investment levels and the number of newly created jobs. Remarkably, as it under-

lines the selective nature of the program, these benchmarks are not set for the respective sub-sector as a whole but for specific companies.

To boost competitiveness the program offers many carrots, but it is silent about sticks. Although the program also suggests efforts to strengthen the institutional environment for entrepreneurship, it proposes mainly budgetary support measures. The most important are tax incentives, subsidized credit interest rate, loan guarantees, export insurance and grants for innovations. Basically the same support measures are provided for small and medium-sized businesses in a specific program called "Business Road Map 2020". In addition, the new program intends to continue the 2004 cluster policy as well as the "national champions" initiative, which President Nazarbayev has reaffirmed on May 5, 2015.

The key actor in the implementation of the new industrial development program is the national holdings NMH "Baiterek" JSC with its daughter companies. Its primary task is to channel the budget resources to the selected projects using modern financial instruments. Thereby it shall try to attract private foreign and domestic capital for co-financing. Embed-dedness is only rudimentarily addressed. The establishment of committees and councils is recommended to improve the coordination among the state agency involved to carry out the program.

From the standpoint of robust economic policy not only the selection of 14 sub-sectors is problematic, but also special support for clusters, national champions and SME. There are no sound reasons to believe that public officials have better knowledge than private entrepreneurs to assume that precisely these particular forms of business organization are superior generators of innovations. More in line with robustness are improvements of the business environment and the reduction of state involvement in the economy through a planned privatization as well as the provision of infrastructure. However, the latter is also exposed to the knowledge problem as it is far from guaranteed that such infrastructure really meets the needs of private entrepreneurs. In fact, the program itself deplores the insufficient use of existing public infrastructure (State Program chapter 1).

5. Concluding remarks

The robust political economy analysis of the theoretical and conceptual foundations of the indirect industrial policy approach showed that it offers no prospective alternative to Kazakhstan's hitherto applied diversification course. It nevertheless is a form of targeting where policy makers have to decide whom to help and whom not, not the least, because the recommended policy tools are largely the same as in old industrial policy. It is another way of promoting government intervention, while feigning to be non-interventionist. Notwithstanding the institutional precautions suggested by Rodrik, indirect industrial policy cannot really alleviate the two central problems of any form of targeted-benefit policy.

So if both the traditional and the new, indirect industrial policy lack robustness and are risky, is there any proactive role left for the government in diversification policy? From the robust political economy perspective, the answer is no. This totally converse conclusion stems from the different understanding of market competition. It is only through the trial and error process of the market competition that the best sectoral composition of an economy emerges at one given point in time and space. From the robust political economy perspective the government's main task is providing a functioning institutional environment that stimulates the potential for entrepreneurial discovery. Then diversification will follow on its own. This policy conclusion is in line with a growing body of literature that shows that bad economic and political institution are actually the proper reason why resource-rich countries may fall prey to the resource curse (Mehlum et al., 2006; Brunnschweiler, 2008; van der Ploeg, 2011).

Kazakhstan has made remarkable progress in building a relatively strong economic institutional framework. In a number of international indexes ranking of the comparative institutional performance Kazakhstan is much better than most other CIS states, including Russia, and even some OECD countries (Nellis, 2014). Nonetheless, there are still great challenges in this field in order to achieve, by 2050, Kazakhstan's strategie vision, in particular the unchanged high level of corruption and, the growing involvement of the state in the economy (Nellis, 2014; IMF, 2014).

References

1. Acemoglu, D. and Robinson, J. (2012). *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business.
2. ADB (2013). Report to the Government of Kazakhstan: Policies for industrial and service diversification in Asia in the 21st century. Mandaluyong City, Philippines: Asian Development Bank.
3. Ahrend, R. (2006). How to Sustain Growth in a Resource Based Economy? The Main Concepts and their Application to the Russian Case. *OECD Economics Department Working Papers*, No. 478. OECD Publishing.
4. Baumol, W.J. (1990): Entrepreneurship: Productive, Unproductive, and Destructive. *The Journal of Political Economy*, Vol. 98, 5, pp. 893-921
5. Baumol, W.J., Litan, R.E. and Schramm, C.J. (2007). Good capitalism, bad capitalism, and the economics of growth and prosperity. Yale Univ. Press, New Haven, Conn
6. Brunnschweiler, C.N. (2008). Cursing the Blessings? Natural Resource Abundance, Institutions, and Economic Growth. World Development. 36 (3), pp. 399–419.
7. Buchanan, J. (1987): The Constitution of Economic Policy. *The American Economic Review*. 77 (3), pp. 243-250.
8. Buchanan, J.M. and Vanberg, V. (1991). The market as a creative process. The Collected Works of James M. Buchanan, 2001, vol. 18. Liberty Fund, Indianapolis, IN. http://www.libertarianismo.org/livros/vvtcom.pdf. (accessed 20.04.2015).
9. Carden, A. and Horwitz, S. (2013). Is Market Failure a Sufficient Condition for Government Intervention? Library of Economics and Liberty.

http://www.econlib.org/library/Columns/y2013/CardenHorwitzmarkets.html. (accessed 25.04.2015).
10. Evans, P.B. (1995). *Embedded Autonomy: States and Industrial Transformation*. Princeton, NJ: Princeton University Press.
11. Greenwald, B. and Stiglitz, J.E. (2012): Learning and Industrial Policy: Implications for Africa. Paper presented to an International Economic Association roundtable conference on "New Thinking on Industrial Policy: Implications for Africa," Pretoria, July 3-4. http://cgt.columbia.edu/wp-content/uploads/2014/01/Learning-and-Industrial-Policy-Implications-for-Africa.pdf. (accessed 25.04.2015).
12. Greenwald, Bruce and Stiglitz, J.E. (2014): Creating a Learning Society: A New Approach to Growth, Development, and Social Progress. New York: Columbia University Press.
13. Grossman, S. and Stiglitz, J.E. (1976). Information and the Competitive Price System. American Economic Review, 66, pp. 246-253
14. Hausmann, R. and Rodrick, D. (2003). Economic Development as Self-Discovery. *Journal of Development Economics.* 72(2), pp. 603-633.
15. Hausmann, R., and Rodrik, D. (2006). Doomed to Choose: Industrial Policy as Predicament. Mimeo. Cambridge, MA: Harvard University. http://www.hks.harvard.edu/fs/drodrik/Research%20papers/doomed.pdf. (accessed 26.04.2015).
16. Hausmann, R., Rodrik, R. and Sabel, S. (2008). Reconfiguring Industrial Policy: A Framework with an Application to South Africa. CID Working Paper 168. Harvard University, Centre for International Development
17. Hayek, F.A. (1945): The Use of Knowledge in Society. *The American Economic Review*, 35 (4), pp. 519-530.
18. Hayek, F.A. (1960). *The Constitution of Liberty*. Chicago: University of Chicago Press.
19. Hayek, F.A. (1973). *Law, Legislation and Liberty, Vol.1: Rules and Order*. Chicago: University of Chicago Press.
20. Hayek, F.A. (1978). *Competition as a Discovery Procedure*. In F. A. Hayek (ed.). New Studies in Philosophy, Politics, and Economics and the History of Ideas. Chicago: University of Chicago Press, pp. 179–90.
21. Hayek, F.A. (1989). The Pretence of Knowledge. American Economic Review, 79 (6), pp. 3-7.
22. Hayek, F.A. (1990). Law, Legislation and Liberty, Vol.3: The Political Order of a Free People. Chicago: University of Chicago Press.
23. Hoff, K. (2001). Beyond Rosenstein-Rodan: The Modern Theory of Coordination Problems in Development. In Pleskovic, B. and Stern, N. (ed.). Annual World Bank Conference on Development Economics 2000. Washington, DC: World Bank, pp. 145-188. http://siteresources.worldbank.org/DEC/Resources/abcde-cf-withappendix.pdf (accessed 20.04.2015).
24. IMF (2014). Republic of Kazakhstan 2014 article IV consultation: August 2014. IMF Country Report, 14/242. International Monetary Fund, Washington, D.C.
25. Kirzner, I.M. (1973). *Competition and Entrepreneurship*. Chicago: The University Chicago Press.
26. Kirzner, I. M. (1978). The Perils of Regulation: A Market-Process Approach. Coral Gables, Fla.: University of Miami School of Law.
27. Kirzner, I.M. (1997): Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach. *Journal of Economic Literature*, XXV (March), pp. 60-85.
28. Mehlum, H.; Moene, K. and Torvik, R. (2006). Institutions and the Resource Curse.

Economic Journal, 116 (508), pp. 1–20.
29. Mises, L. von (1976/1996). *A Critique of interventionism: inquiries into present day economic policy and ideology*. Revised English translation of the 1976 German new edition by Hans F. Sennholz. Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1996. https://mises.org/etexts/mises/critique/critique.pdf. (accessed 30.03.2015).
30. Murphy, K., Shleifer, A. and Vishny, R.(1989). Industrialization and the Big Push. *Journal of Political Economy*. 97(5), pp. 1003-1026.
31. Nellis, J. (2014): *Institutions for a Modern Society.* In Aitzhanova, A., Kastu, S., Linn, J.F. and Yezhov, V (eds.). Kazakhstan 2050: Towards a Modern Society for All. Oxford: Oxford University Press, pp. 285-310.
32. OECD (2014). *Kazakhstan: Review of the Central Administration.* OECD Public Governance Reviews. Paris: OECD Publishing.
33. Rosenstein-Rodan, P. (1943). Problems of Industrialization of Eastern and Southeastern Europe. *Economic Journal,* 53 (June-September), pp. 202-211.
34. Rodriguez-Clare, A. and Klenow, P.J. (2005). *Externalities and Growth*. In Aghion, P. and Durlauf, S. (ed.). *Handbook of Economic Growth*, Vol. 1A. North-Holland, pp. 817–886.
35. Rodrik, D. (2004): *Industrial Policy for the Twenty-First Century*. KSG Working Paper No. RWP04-047, Harvard University.
36. Rodrik, D. (2008). Industrial policy: don't ask why, ask how. *Middle East Development Journal*, 1, pp. 1–29.
37. Rodrik, D. (2013). In truth, mercantilism never really went away. *The National*, January 11, 2013. http://www.thenational.ae/business/industry-insights/economics/in-truth-mercantilism-never-really-went-away (accessed 25.04.2015).
38. Sautet, F. (2010). *The competitive market is a process of entrepreneurial discovery*. In Boettke, P. (ed.). *Handbook on Contemporary Austrian Economics*. Chelthen-ham, UK, Northampton, MA, USA: Edward Elgar, pp. 87-108.
39. State Program on forced industrial-innovative Development of Kazakhstan for 2010-2014. http://dppzhambyl.gov.kz/en/state/phi/ (accessed 11 April 2015).
40. State Program on industrial-innovative development of the Republic of Kazakhstan for 2015 – 2019. http://strategy2050.kz/static/files/pr/eng.docx. (accessed 11 April 2015)
41. Strategy Kazakhstan-2050: new political course of the established state. Address by the President of the Republic of Kazakhstan, N. Nazarbayev, 14.12.2012. http://strategy2050.kz/ (accessed 11 April 2015).
42. Stiglitz, J. (2001). *From Miracle to Crisis to Recovery: Lessons from Four Decades of East Asian Experience*. In Stiglitz, J. and Yusuf, S. (eds). *Rethinking the East Asian Miracle*. New York: Oxford University Press, pp. 509-526.
43. van der Ploeg, F. (2011). Natural Resources: Curse or Blessing? *Journal of Economic Literatur*. 49 (2), pp. 366–420.
44. Wandel, J. (2009). *Kazakhstan: Economic Transformation and Autocratic Power*. Mercatus Policy Series, Country Brief No. 4, Mercatus Center, George Mason University. http://mercatus.org/sites/default/files/Kazakhstan_-_Economics_Transformation_and_Autocratic_Power_1.pdf (accessed 11 May 2015).
45. Weiss, J. (2011). *Industrial Policy in the Twenty-First Century. Challenges for the Future. September 2011*. Working Paper No. 2011/55. United Nations University – Word Institute for Development Economics Research.
46. World Bank (2015). *Kazakhstan Overview*. World Bank website. http://www.worldbank.org/en/country/kazakhstan/overview (accessed 11 May 2015).

HOLDINGS CONFIGURATION AND ITS CHANGES DURING A CRISIS

Wioletta Mierzejewska

Abstract

Holdings are a very interesting phenomenon, although their development stage is to various in different countries across the world. It depends mainly on the legal and political, as well as economic conditions. In the 'old Europe' countries the phenomenon of holdings is well known and described. Big transnational corporations were created already in the 19th century. In the Central and Eastern Europe however this phenomenon is relatively new, as holdings were developed only after the system transformation.

The significance of holdings in modern economy is proven by a constant growth of their number, even in the times of a crisis. A survey of Eurostat [EuroGroup Register] shows that in 2008-2011, when economic conditions deteriorated significantly, the number of MNE grew almost 2.5 times. According to the Polish Central Statistical Office [CSO Reports 2008-2013] the number of groups of enterprises operating in Poland grew by almost 40% during the last six years.

The emergence and development of holdings consisting of legally independent enterprises is substantiated by numerous circumstances. Undoubtedly, the growth of an enterprise makes it necessary for managers to look for optimum means of management. Replacing hierarchical relations by capital relations means greater structural flexibility of an entity and facilitates control and management. The reasons of establishing holdings are often related to reduction of operational and capital risk, especially with reference to diversified holdings which are more resilient to periodical downturn than entities operating in only one sector [Sikacz, 2011]. Additionally, operating as a part of capital group during a crisis can give advantages by dispersing risk and more opportunities of restructuring actions at the level of the entire holding, as well as opportunities of support by instruments of internal capital market of individual companies.

What matters in the times of a crisis is not only the form of a holding, but also its configuration understood as the holding construction in respect of the number of tiers and subsidiary companies. Excessive development can lead to a drop of effectiveness because of the necessity of greater coordination of actions, problems with supervision, control and subsidiary companies management. On the other hand, insufficient complexity of a holding and a broad scope of operational activities carried out by the parent company can expose the entire group to a greater operational and financial risk.

The reference literature does not provide research showing dependence between a holding configuration and its effectiveness. Most researches identify only the level of complexity (number of subsidiary companies, number of holding tiers) [Dundas, Richardson (1982); Romanowska (2011); Jeong-Pyo, Cowing (2002)] or indicate the need to adapt the holding construction to strategy changes [Mishra, Akbar (2007); Haque, Hassan (2001); Kim, Hoskisson, Wan (2004)].

The aim of the article is to present the results of empirical research on the configuration of holdings and on the relation between their configuration and economic performance. Quantitative research were used to solve this research problem. Quantitative research was carried out using CATI (Computer Assisted Telephone Interviews) method on the sample of 97 holdings included in the list of "Rzeczpospolita" newspaper, covering the biggest economic entities operating in Poland. Cramer's V index was used in statistical analyses to measure the strength of dependence between the two nominal variables.

Additionally, the applied measures of a holding's effectiveness are not classical measures allowing for financial situation evaluation, such as the volume of income, ROE, ROA, as well as index enabling evaluation of bankruptcy risk adapted to the Polish economic conditions.

The research evaluated not only the holdings' configuration during the crisis, but most of all what changes they made in their configuration. It should be highlighted that the empirical research fills the gap in research on the issue of holdings configuration during the crisis.

Key words: *holding, structure, economic performance, structure*

Introduction

Holdings play a significant role in the economy, although certain differentiation in the use of capital structures in different world regions can be observed. Economic strength and significance of holdings is reflected by their growing number, but most of all by their revenues, GDP generated by them and their share in the world trade. For example, data from Slovenia show that they account for 7% of the economy, but generate as much as 66% of revenues [*Enterprise Groups, Slovenia]*. In Poland in 2013 enterprise groups generated as much as 52.1% of total revenues of non-financial enterprises [*Grupy przedsiębiorstw w Polsce w 2013 roku, 2015]*.

It should be highlighted that holdings develop intensively irrespective of the market situation. Even in the times of a crisis, growth of their number is observed. For example, on the territory of the European Union and EFTA, the growth of the number of international holdings in 2008-2011 was almost 2.5-fold (from 6350 to 15 657) [EuroGroup Register]. In Poland the number of enterprises in 2008-2013 grew from 1462 to 2039 [data of Central Statistical Office]. Also in other countries of Central and Eastern Europe, for example in Romania, Slovenia or Latvia [Dworzecki, Mierzejewska, 2015] growth of the number of enterprise groups was observed during the crisis. Along with the growth of the number of holdings, changes of their features are also observed. There are more international groups and holdings with a simple structure and a small number of subsidiaries. It can be a consequence of the crisis and improvement of effectiveness resulting from the sales or liquidation of unprofitable companies.

Holdings are an attractive form of business even during a crisis in the case of very complex undertakings. It can be said that it is a natural stage of an enterprise's structural evolution. The attractiveness of a holding as a form of business is also influenced by the fact that this form makes it possible to share risk, minimise transaction costs between companies and provides security of contracts implementation guaranteed by ownership supervision, which is especially important in the times of crisis. Undoubtedly a crisis necessitates introducing many changes in economic entities. Dealing with a crisis is often about searching for opportunities of operational improvement, applying financial discipline, verification of strategy, business model changes, as well as reconfiguration of internal organisation.

The aim of this article is to identify the rate of complexity and its changes in Polish holdings during a crisis, and also to verify whether there is a relationship between effectiveness and a holding rate of complexity. Unfortunately reference literature provides only scarce research on this issue. Because of the research gap, the Author decided to study structural solutions applied by Polish holdings, including the rate of holdings complexity.

Literature review

As it was mentioned before, the amount of research on holdings, including their configuration, is very small. The difficulty of analysis of holdings is caused by both their complexity and ambiguous definition. Two trends in defining holdings should be highlighted. The first one is present in economic literature; it connects the existence of holdings with ownership control relationship. The second, sociological trend, focuses on non-ownership ties [Cainelli, Iacobucci (2011)]. In Polish literature the term "holding" (grupa kapitałowa) is related to the functioning of entities consisting of companies that are legally independent, but connected in terms of ownership control [Trocki (2004)]. Similarly to the world literature, this term is often associated with the existence of entities depending on each other in economic terms and interrelated in terms of control/ownership. This means that this category can include entities having a common decision-making centre, but which are not necessarily connected by ownership ties.

Despite the difficulties with identification and assessment of holdings functioning, an intensive development of these structures induces researchers to analyse these issues. In English-language literature most interest was given to the issues of holdings in 1970s and 1990s. It was related to the fast development of economic entities by diversification and internationalisation, which necessitated structural changes and transformation of enterprises into holdings. Due to the

current emergence of strong holdings in developing economies and their further international expansion, the scientists are again interested in this form of business activity.

Polish scientists started to study holdings only after 1989, i.e. after the political transformation, when holdings started to develop intensively. The analyses covered issues such as ways of formation [Trocki (2004); Wawrzyniak et al. (1998), Nogalski, Walentynowicz (2004)]; action strategies [Romanowska (2011), Aluchna (2010)]; as well as freedom of decision-making in holdings [Falencikowski (2008)] or synergy [Chadam (2012)] and other more detailed problems of holdings' functioning. Polish holdings are an interesting object of research because of the short period of operation and different ways of formation.

Analyses of their structure and relation between external configuration with an economic entity's effectiveness are a very interesting thread of research on business structures. Unfortunately, the relationship between the structure and effects of carrying out business is ambiguous. However, solutions conducive to running business in the conditions of dynamic changes in the environment can be indicated [Dalton et al. (1980)]. In the case of holdings, a possibility to increase flexibility of actions and dispersing risk by delegating individual functions to subsidiaries and making their business autonomous is such a factor. Effectiveness of a holding during a crisis is therefore influenced by its internal configuration, including its rate of complexity. Complexity of a holding can be measured by the number of elements it comprises. This simple measurement identifies the total number of companies, number of subsidiaries, second-tier subsidiaries or the number of tiers in a group. Reference literature also provides composite measures, combining those listed above. A high rate of complexity of a holding is often associated with at least three tiers (parent companies, subsidiaries, second-tier subsidiaries) and more than 10 subsidiaries [Romanowska (2011)].

A high rate of complexity is often perceived as a factor reducing effectiveness of a holding. However, research carried out in 2007-2013 on six holdings listed on the Warsaw Stock Exchange indicated that both insufficient and excessive complexity can have a negative impact on economic performance. A low rate of complexity of a holding and a broad scope of operational activities carried out by a parent company can expose the entire group to a greater operational and financial risk. Excessive complexity can in turn lead to problems with management and supervision over subsidiaries [Mierzejewska (2014)].

Research on the relation between complexity of a holding and its results have often been carried out with reference to a specific strategy implemented by holdings. Particularly large amount of research on holdings was carried out in the context of diversification of holdings' activities and their economic results. Such research was carried out by Mishra and Akbar (2007) on the example of companies in India; Haque and Hassan (2001) on the example of a Bangladesh company; Kim, Hoskisson and Wan (2004) on the example of Japanese companies; Jeong-Pyo Choi and Cowing (2002) on the example of Korean companies. The last example has proved that the size of a group and number of companies comprised by it influence profitability, as well as a group type, understood as a group of small, equal enterprises versus a group of companies dominated by one large enterprise.

There has also been research verifying influence of selected features of group organisation on its performance. Such research was carried out by Dundas and Richardson (1982). They analysed, whether the way of controlling and grouping companies is related to a holding's effectiveness. It turned out that companies in enterprises with high profitability are independent. Only in the case of a large number they are combined in groups for easier management. For it turns out that if the number of subsidiaries rises and they are not grouped, the performance of the entire enterprise worsens significantly. A large number of companies having various sizes, capital needs and effectiveness has a negative impact on management and control possibilities as well as ability to prevent problems.

Creating additional tiers in a holding can be an alternative for consolidation of companies with the rise of their number. Vertical development of a holding by adding tiers leads to slimming down its structure, where the number of subsidiaries directly depending on the parent company is small. An advantage of large number of tiers is enhancing the power of a parent company, despite

decentralisation of decision-making and delegating it to lower tiers, since a large number of small companies subordinate to several levels weakens the significance of lower level holdings, while consolidation enhances subsidiaries. Unfortunately, there is no research confirming this consideration. There is relatively little empirical research on the relationship between effectiveness of the entire holding and its structure. Such research in Poland was carried out by Romanowska (2011). She identified an inverse relationship between a holding complexity measured by the number of tiers and its effectiveness measured by ROA. It turned out that more complex holdings have worse performance results than those comprising only two tiers, i.e. parent companies and subsidiaries. Complexity of a holding is therefore negatively correlated with its performance.

Research method

Research on the complexity of holdings during a crisis was a part of broader research aimed at identification of factors of resilience to crisis [Romanowska, Mierzejewska (2015)]. It was carried out on a group of enterprises comprising holdings included in the "2000 List" published by "Rzeczpospolita" newspaper in 2012. The "2000 List" of the "Rzeczpospolita" daily covers the largest, in respect of sales revenues, entities operating in Poland. 147 enterprises have been drawn out from among these entities for further research, including 97 entities declaring being a part of a holding.

The research was carried out using CATI (Computer Assisted Telephone Interviews) method based on a questionnaire prepared earlier. This research method made it possible to reach numerous respondents, while minimising financial costs. CATI research was carried out in 2013, by the end of the macroeconomic crisis. The interviews were conducted by a company named "Indicator. Centrum Badań Marketingowych".

The questionnaire prepared for the research included questions about structural factors, such as those concerning structure of a holding, which made it possible to evaluate complexity of a holding. The rate of complexity of a holding was examined by questions about the number of subsidiaries and the number of tiers. A holding was considered complex if it had at least three tiers (it included at least mother company, subsidiaries and second-tier subsidiaries) and more than 10 subsidiaries [Romanowska (2011)]. Considering the number of subsidiaries and the number of tiers, each examined group was classified as having a high, medium or low rate of complexity. Additionally, the changes introduced in the holdings during the crisis were analysed. The respondents were asked about the following changes in their holding structure: purchase of companies, setting up separate companies, joining companies, liquidation of companies and sale of companies.

To evaluate the condition of enterprises comprising holdings, the following measures of effectiveness were applied: sales revenues, ROE, ROA and indicator of resilience to crisis. The crisis-resilience indicator is one of the methods of predicting bankruptcy risk. Romanowska was the first to propose to use it for evaluation of enterprises' effectiveness in crisis [Romanowska, Mierzejewska (2015)]. The indicator was adapted to the Polish conditions and based on Altman's model. It was an indicator developed by a team of Polish scientists [Mączyńska, Zawadzki (2006)], calculated according to the formula:

$$\mathbf{Z_{7\ INE\ PAN} = -1{,}498 + 9{,}498 * x_1 + 3{,}566 * x_2 + 2{,}903 * x_3 + 0{,}452 x_4}$$

X_1 – operational result/total assets

X_2 – own capital/total assets

X_3 – (net financial results + depreciation) / total liabilities

X_4 - current assets/short-term liabilities

Number -1.498

Its interpretation consists in differentiating positive and negative numbers. A negative indicator shows that an enterprise is at risk of bankruptcy. A positive indicator shows that an enterprise is not at risk of bankruptcy. It can be also indicated that enterprises with a positive indicator number, the value of which is however than than one, are entities in poor financial condition, and those with the indicator value exceeding one are entities in good financial condition.

The data gathered as a part of CATI research were further processed. The results were presented in a form of collective diagrams and tables. Statistical relationships(strength of relation between variables) were verified on the basis of statistical tests chosen using SPSS Statistics programme.

Results

Three main issues discussed in the article are presented below. The first issue is about the complexity of holdings in the final years of the crisis. The second one concerns changes of complexity occurring during the crisis, and the third one is about the relationship between complexity of a holding and its effectiveness.

Complexity of holdings in the final years of the crisis

Complexity of holdings is related to both horizontal development (by increasing the number of subsidiaries) and vertical development (by increasing the number of tiers). The average number of companies in the examined sample of holdings was 10, and the median was 5. Most holdings (15 out of 91) had three subsidiaries. A vast majority of the holdings had less than 10 subsidiaries. Such number was declared by as much as 70.3% respondents. Only 29.7% of respondents from enterprises being a part of a holding declared that their holding comprises 10 or more subsidiaries. The examined holdings therefore were not very developed in respect of the number of subsidiaries.

They were also not very developed vertically. A prevailing number of respondents (over 55%) declared that their holding comprised two tiers, i.e. a parent company and subsidiaries. Six respondents said that their holdings had four tiers. Respondents from five enterprises declared that their holding had five tiers. The holdings employing the respondents were also not very developed in respect of the number of tiers.

A summary analysis of companies and the number of tiers in each holding made it possible to provide a comprehensive evaluation of the rate of complexity of the examined entities. Each holding was classified as a holding with a low rate of complexity (not developed vertically or horizontally), or a holding with a high rate of complexity (developed both vertically and horizontally), or a holding with a medium rate of complexity (developed vertically or horizontally). Percentage values reflecting complexity of the holdings examined under quantitative research is shown in figure 1.

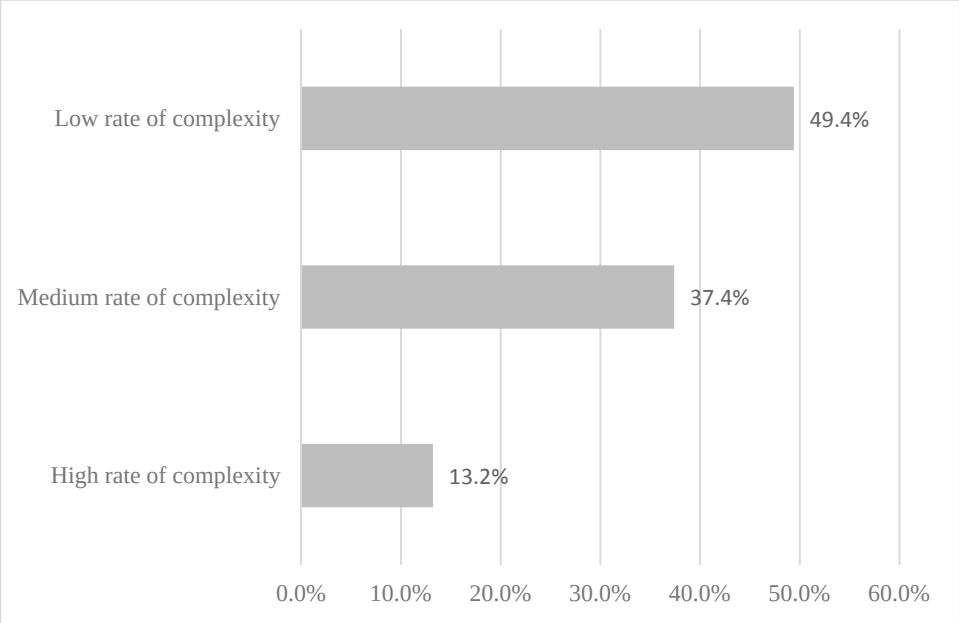


Figure 1. Rate of complexity of holdings

N=91 (6 refusals of answers)

Research results show that most examined holdings had a low rate of complexity. Almost half of the respondents (49.45%) declared 10 or less than 10 subsidiaries and less than three tiers of their holding. It is however worth noticing that over 37% of holdings were classified as holdings with a medium rate of complexity. These holdings had therefore decided to develop either by increasing the number of subsidiaries, or by increasing the number of tiers. Possibly, these holdings could had been undergoing development or reorganisation. Only 13% of holdings had a large number of both subsidiaries and tiers.

Analysis of individual dimensions of a holding complexity (number of subsidiaries and tiers), as well as comprehensive analysis of a holding structure provides a basis to state that the rate of complexity of Polish holdings is low.

Changes in the holdings complexity during the crisis

Complexity of holdings during the final years of the crisis results from changes introduced in their structures. In the times of crisis it is advisable to introduce measures aimed at reducing the size of an enterprise. Lean management, outsourcing, downsizing and delayering are indicated as appropriate for the times of crisis, and most of all for enterprises in the times of crisis [Stabryła (2012)]. Undertaking actions aimed at slimming down an organisation is much easier in holdings. It can be assumed that during the crisis holdings are more eager to undertake measures to organise their structure and to sell or liquidate unprofitable companies or those that do not fit the holding's strategy.

Changes reported by the respondents are shown on the figure below. The percentage values are not summed up to 100%, since each respondent could give more than one answer.

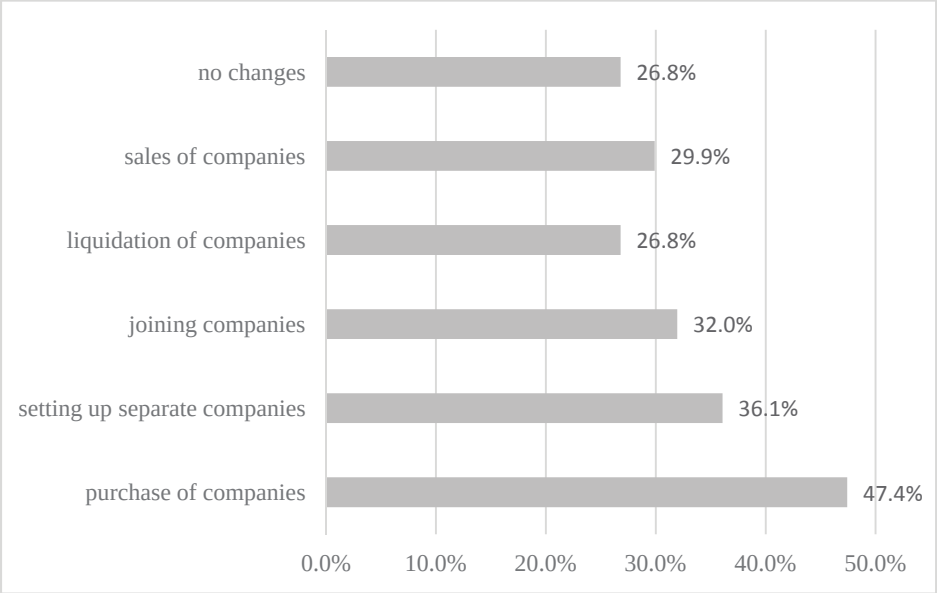


Figure 2. Changes in holdings - distribution of answers

Source: N=97

It is worth noticing that almost three fours of the entities under research introduced changes in their holding structure during the crisis. Interestingly, as much as 47.4% of respondents indicated that during the last years their holding had been externally developed by a purchase of companies. The numbers of newly separated companies (36.1%), joined companies (32.0%) and sold companies (29.9%) were similar.

Changes in holding structures can be divided into investment changes, changes relating to the emergence of new companies in the holding structure, divestment changes understood as sales or liquidation of companies and changes organising a holding structure, i.e. those related to setting up separate companies and joining companies. Divestment and organising changes prevailed during the crisis, according to anticipations. As much as 56.7% of the analysed entities had sold and liquidated companies. It was accompanied by changes introduced to organise a holding structure (setting up separate and joining companies - 68.1%). These measures were to increase the effectiveness of the holdings.

Interestingly, as much as 26.8% answers were about lack of any changes in a holding during the crisis. 9.7% of respondents reported introducing each of the listed changes. Both categories of answers are alarming. Lack of changes can be an evidence of a will to wait through the crisis or ignoring it, while excessive activities of a holding can mean a lack of strategy and only *ad hoc* measures.

The research also verified whether the changes were specific for holdings with higher or lower rate of complexity. The results are shown in the table below.

Table 1. Rate of complexity and reported changes introduced in a holding

Reported type of introduced change / Rate of complexity	**purchase of companies**	**setting up separate companies**	**joining companies**	**liquidation of companies**	**sale of companies**	**no changes**
low	35.7%	33.3%	42.9%	32.0%	42.3%	68.0%
medium	42.9%	42.4%	28.6%	28.0%	34.6%	24.0%
high	21.4%	24.2%	28.6%	40.0%	23.1%	8.0%
Total	N= 100% (42)	N= 100% (33)	N= 100% (28)	N= 100% (25)	N= 100% (26)	N= 100% (25)

Respondents from holdings with a medium level of complexity were the ones to report purchases of companies most often (42.9%) as well as setting up separate companies (42.4%). Joining and sales of companies was mostly reported by respondents from holdings with a low level of complexity (42.9% and 42.3% respectively). The last type of changes, i.e. liquidation, was usually indicated by respondents from holdings with a high rate of complexity. Lack of any changes was mostly declared by respondents from holdings with a low rate of complexity.

It should be highlighted that a statistically significant relationship between a change introduced in the last years and the rate of complexity of a holding was identified for four out of five types of changes: purchase (Cramer's V = 0.289, $p<0.05$), setting up separate companies (Cramer's V = 0.294, $p < 0.05$), joining companies (Cramer's V = 0.305, 0.05) and liquidation of companies (Cramer's V = 0.489, $p<0.05$). Relationship between company liquidation and the rate of complexity was the strongest. It means that a more companies liquidations were observed along with the increase in a holding rate of complexity. It is the simplest way to improve effectiveness during a crisis, eagerly applied by developed holdings.

Influence of holdings' rate of complexity on their effectiveness during the crisis

The issue of complexity of a holding is strongly related to its management system. As it was mentioned in the research review, it can also influence a holding effectiveness. It is assumed that effectiveness of holdings which are very developed in vertical and horizontal respect would be lower. The described research measured effectiveness both by traditional measures such as ROE and ROA or volume of generated revenues, and by more complex indicators, such as crisis-resilience indicator allowing for assessment of bankruptcy risk.

The tables below show the relationship between the rate of complexity of a holding and its effectiveness.

Table 2. Rate of complexity of holdings and volume of sales revenues

Volume of sales revenues (PLN thousand)	**Rate of complexity**		
	Low	**Medium**	**High**
up to 175000	26.7%	20.6%	41.7%
175001-240000	15.6%	32.4%	33.3%
240001-385000	31.1%	23.5%	0.0%
over 385001	26.7%	23.5%	25.0%
Total	100 % (N=45)	100% (N=34)	100% (N=12)

Cramer's V = 0.211, $p>0.05$

Table 3. Rate of complexity of holdings and ROE

	Rate of complexity		
ROE	**Low**	**Medium**	**High**
ROE below average	46.7%	41.2%	33.3%
ROE over average	53.3%	58.8%	66.7%
Total	100 % (N=45)	100% (N=34)	100% (N=12)

Cramer's V = 0.091, $p>0.05$

Table 4. Rate of complexity of holdings and ROA

ROA	Rate of complexity		
	Low	**Medium**	**High**
ROA below average	55.6%	44.1%	41.7%
ROA over average	44.4%	55.9%	58.3%
Total	100 % (N=45)	100% (N=34)	100% (N=12)

Cramer's V = 0.122, p>0.05

Table 5. Rate of complexity of holdings and resilience to a crisis

Crisis-resilience indicator	Rate of complexity		
	Low	**Medium**	**High**
Z_M<0	8.9%	5.9%	8.3%
0<Z_M<1	20.0%	17.6%	16.7%
Z_M>1	71.1%	76.5%	75.0%
Total	100 % (N=45)	100% (N=34)	100% (N=12)

Cramer's V = 0.047, p>0.05

An analysis of percentage values indicates that holdings with the smallest sales revenues prevail among holdings with the highest level of complexity. It is proven by the fact that development of a holding is not accompanied by a growth of sales revenues. Structure elements that do not generate revenues from sales of goods and services probably occur, and their function is to provide services for the entire or part of the holding, such as financial companies offering loans to other holding companies or logistics management companies. Analysis of relationship between the rate of complexity of a holding and values of ROE and ROA of entities comprised by the holding shows that along with increase in complexity, the number of entities generating ROE and ROA above average grows. Similarly, in the case of crisis-resilience indicator, most holdings with the highest value of this indicator were among holdings with medium and high level of complexity. Unfortunately, relationships between variables are not statistically significant. The rate of complexity of holdings does not differentiate the examined group.

It should be highlighted that there are also no relationships between the number of subsidiaries and effectiveness measured by crisis-resilience indicator (Cramer's V = 0.171, p>0.05) and between the number of a holding's tier and its effectiveness measured by crisis-resilience indicator (Cramer's V = 0.200, p >0.05). The number of subsidiaries and the number of tiers differentiate the examined group. However, slightly more holdings were identified with a small number of subsidiaries not being at risk of bankruptcy, and greater percentage of holdings with a big number of subsidiaries (more than 10) reported decrease of the crisis-resilience indicator. Excessive development, due to the number of subsidiaries, cannot be favourable for a holding and its effectiveness. Unfortunately, statistical tests have not made it possible to state weather there is a relationship between the analysed parameters.

Conclusions

The presented research was to answer to the question about complexity of Polish holdings during the final years of the crisis, directions of changes of this complexity and influence of the rate of complexity on a holding's effectiveness. The results provided a basis to state that Polish holdings in the final years of the economic crisis had a rather low rate of complexity. It was conditioned by changes in the holdings' configuration during the crisis.

The examined holdings introduced numerous changes in their structure in the analysed period, although they were not revolutionary. According to respondents, the most popular category changes were divestments (liquidation or sales of companies) and changes organising the structure of a holding (setting up separate companies or joining them). Changes consisting in internal reconfiguration of a holding's structure, i.e. joining or setting up separate companies, were more specific for holdings with a low and medium rate of complexity. Interestingly, holdings with a low and medium rate of complexity were also more frequently purchasing companies.

Unfortunately, no relationship between effectiveness and complexity of a holding was identified. It could be possibly related to the fact that the structure of a holding should be regarded as a factor moderating relationship between other factors, influencing economic entities' activities results, such as strategy. However incorrect configuration of structure, reflected by excessive complexity, has a negative influence on strategy implementation and only combined with it it can reduce effectiveness of the entire holding and entities it comprises.

References

1. Agoda H., Haus B. (1995), *Holding, organizacja i funkcjonowanie*, PWE, Warsaw.
2. Aluchna M. (2010), *Kierunki rozwoju polskich grup kapitałowych. Perspektywa międzynarodowa*, OWSGH, Warsaw.
3. Cainelli G., Iacobucci D. (2011), *Business groups and the boundaries of the firm*, "Management Decision" Vol. 49 No. 9.
4. Chadam J., *Synergia i wartość w strukturach kapitałowych*, Difin, Warsaw.
5. CSE Reports for 2008-2013 entitled *Enterprise groups in Poland*, Warsaw
6. Dalton D., Todor W., Spendolini M., Fielding G., Porter L. (1980), *Organization structure and performance: A critical revi*ew, „Academy of Management Review", Vol. 5.
7. Dundas K.N.M, Richardson P.R. (1982), *Implementing the unrelated product strategy*, „Strategic Management Journal", Vol. 3, Iss. 4.
8. Dworzecki Z., Mierzejewska W. (ed.) (2015), *Zachowania grup kapitałowych w czasie kryzysu*, OW SGH, Warsaw.
9. *Enterprise Groups, Slovenia*, http://www.stat.si/eng/novica_prikazi.aspx?id=6519
10. EuroStat Euro Group Register, http://egr.istat.it/?q=node/255, September 2014.
11. EuroStat, http://ec.europa.eu/eurostat/, September 2014.
12. Falencikowski T. (2008), *Kształtowanie swobody decyzyjnej w zarządzaniu grupami kapitałowymi*, TNOiK, Toruń.
13. *Grupy przedsiębiorstw w Polsce w 2008-2013 r.*, CSO Report, Warsaw 2010-2015

14. Haque M. , Hassan M.K. (2001), *Diversification as a corporate strategy for a family-controlled business group in a frontier market*, „The Journal of Social, Political, and Economic Studies", Vol. 26, Iss. 4
15. Jeong-Pyo Choi, Cowing T.G. (2002), *Diversification, Concentration and Economic Performance: Korean Business Groups*, „Review of Industrial Organization" Vol. 21, Iss. 3.
16. Khanna, T. (2000). *Business groups and social welfare in emerging markets: existing evidence and unanswered questions*. "European Economic Review", 44(4–6).
17. Khanna, T., Palepu, K. (1997), *Why focused strategies may be wrong for emerging market*, "Harvard Business Review", July-August.
18. Khanna, T., Palepu, K. (1999). *Policy shocks, market intermediaries, and corporate strategy: the evolution of business groups in Chile and India*. "Journal of Economics and Management", 8(2).
19. Kim H., Hoskisson R.E., Wan W.P. (2004), *Power dependence, diversification strategy, and performance in keiretsu member firms*, „Strategic Management Journal", Vol. 26, Iss. 7.
20. Leff N. (1978), Industrial Organization and Entrepreneurship in the Developing Countries: The Economic Groups, „Economic Development and Cultural Change" Vol.78.
21. Mączyńska E., Zawadzki M. (2006), *Dyskryminacyjne modele predykcji bankructwa przedsiębiorstw*, „Ekonomista" no 2.
22. Mierzejewska W. (2014) , *Holding's level of complexity during the crisis*, Journal of Management and Financial Science, Vol. VII, No. 18, pp. 35-47.
23. Mishra A., Akbar M. (2007), *Empirical examination of diversification strategies in business groups. Evidence from emerging markets*, „International Journal of Emerging Markets" , Vol. 2, Iss. 1
24. Nogalski B., Walentynowicz P (ed.) (2004), *Zarządzanie w grupach kapitałowych*, Wyd. WSzAiB, Gdynia.
25.
26. Romanowska M. (ed.) (2011), *Polskie grupy kapitałowe. Strategie i struktury*, PWE, Warsaw
27. Romanowska M., Mierzejewska W. (ed.) (2015), *Przedsiębiorstwo odporne na kryzys*, WoltersKluwers, Warsaw.
28. Sikacz H. (2011), *Ocena sytuacji finansowej operacyjnych grup kapitałowych*, Wolters Kluwer, Warsaw.
29. Słownik Języka Polskiego, www.sjp.pwn.pl
30. Stabrył A. (ed.) (2012) *Podstawy organizacji i zarządzania. Podejścia i koncepcje badawcze*, Wyd. UE w Krakowie, Cracow.
31. Trocki M. (2004), *Grupy kapitałowe. Tworzenie i funkcjonowanie*, PWN, Warsaw.
32. Wawrzyniak B., Romanowska M., Trocki M. (1998), *Grupy kapitałowe w Polsce*, Difin, Warsaw

ECONOMIC DEVELOPMENT IN TRANSITION COUNTRIES WITH SPECIAL FOCUS ON COMPETITIVENESS OF BOSNIA AND HERZEGOVINA

Jakovljević Sanja, MA [46]

Kalabić Dragana, dipl. ecc.[47]

Abstract

Economic development should bring new jobs, retain existing jobs and stimulate industrial and commercial growth. These goals can be achieved by improving business opportunities, increasing economic competitiveness through the affirmation of innovation and competitiveness and creating sustainable jobs. Competition or market game is the main regulator of the market. While some theorists believe that competitiveness is just measure of the wealth of a society in another way, it is very important that it contributes to innovation, improving business and overall economic growth. It is one of the components of competitiveness and macroeconomic environment. The stability of the macroeconomic environment is important for business, and it is also important for the overall competitiveness of the country. Theoretically, all countries go through three phases of development.

In the first stage (factor-driven stage) productivity growth are important basic factors of competitiveness: a well-functioning public and private institutions (base I), well-developed infrastructure (base II), a stable macroeconomic framework (base III) and a good, healthy and literate workforce (base IV). Factors affecting competitiveness are: high operating costs, large tax burden, high public debt, weak overall competition which does not encourage companies to innovation and competitiveness, unregulated system of environmental protection and waste management, high quality or low quality transport infrastructure, difficulties in the liquidation of the company, harmonized legislation, weaknesses in public administration, etc.

Keywords: *economic development, competitiveness, macroeconomics, market, innovation.*

JEL Classifications: *D41, E23, E44, E62.*

[46] Master of the Economy, ZP Elektrodistribucija a.d., Alekse Šantića 7, Pale, sanjajakovljevic87@yahoo.com

[47] Bachelor of the Economy, Clementinengasse 10, 1150, Wien, Österreich, dkalabic@ymail.com

1. Introduction

Competition or market game is the main regulator of the market. While some theorists believe that competitiveness is nothing but measuring of the wealth of a society in a different way, it is very important that it contributes to innovation, improving business and overall economic growth. However, if the competitiveness in the global market is weak, the national economy suffers as well. This usually leads to protectionism, non-transparent government subsidies and barriers to market entry.

Competitiveness plays a central role to economic thinking both in developed and developing countries. According to the OECD definition, competitiveness is the ability of the country to produce, in free and fair market conditions, goods and services that pass the test of the international market, while maintaining a long-term increase in real income of the population. The principle of competitivness is one of the basic principles in many fields: economics, business, politics, sports, ecology, biochemistry, etc. (Ostojic, 2005). Globalisation is the final-complex process that represents a network connection between the increasing number of participants appropriated to influence the global infrastructure, and also have specific requirements relating to the market resources and the scope of the activities, thus becoming increasingly involved in areas that traditionally belong to diplomacy (Džombić , 2010). The country's competitiveness can be defined as an area of economic theory, which analyzes the facts and policies shaping the country's ability to create and maintain an environment that creates higher value for the enterprise and prosperity of its people (Gareli, 2009). Some believe that competitiveness is not an isolated phenomenon but an interdisciplinary one arising from the internal and external environment and connects business strategy, macroeconomic policy, legal and regulatory reform, education, motivation of management and employees and a lot of other economic, business and social factors on the creation of a single strategic plan and competition policy in order to create greater added values (Rosic and Veselinovic, 2008).

Enhancing productivity and overall competitiveness must be the basic idea in the implementation of economic policy. Only urgent and well-targeted policies of promoting national competitiveness can ensure the desired development and overall social welfare. These policies must be comprehensive and aimed at raising competitiveness.

Competitiveness of a country is influenced by many direct and indirect factors, but most important is the competitiveness of enterprises, since they are the bearers of economic development. Because of this, companies are placed in the forefront with respect to many indicators that characterize macroeconomics. Of course, the environment that significantly affects the competitiveness of certain sectors of the economy must not be neglected.

Factors affecting competitiveness are: high operating costs, large tax burden, high public debt, weak overall competition which does not encourage companies to innovation and competitiveness, unregulated system of environmental protection and waste management, high quality and low quality transport infrastructure, difficulties in the liquidation of the company, unharmonized legislation, weaknesses in public administration, etc.

Competitiveness is a concept without content when applied to national economies. An obsession with competitiveness is both wrong and dangerous (Krugman, 2004).

2. Competitiveness of the standard of living in Bosnia and Herzegovina

Domestic product can be used as an indicator of the level of economic development of a community. By comparing the size of the domestic product achieved in different years by a community, it is possible to follow its development. If domestic product increases from year to year, the community is economically successful, whereas if the domestic product decreases, the economic system on which it is based is not successful (Ivanic, 2010).

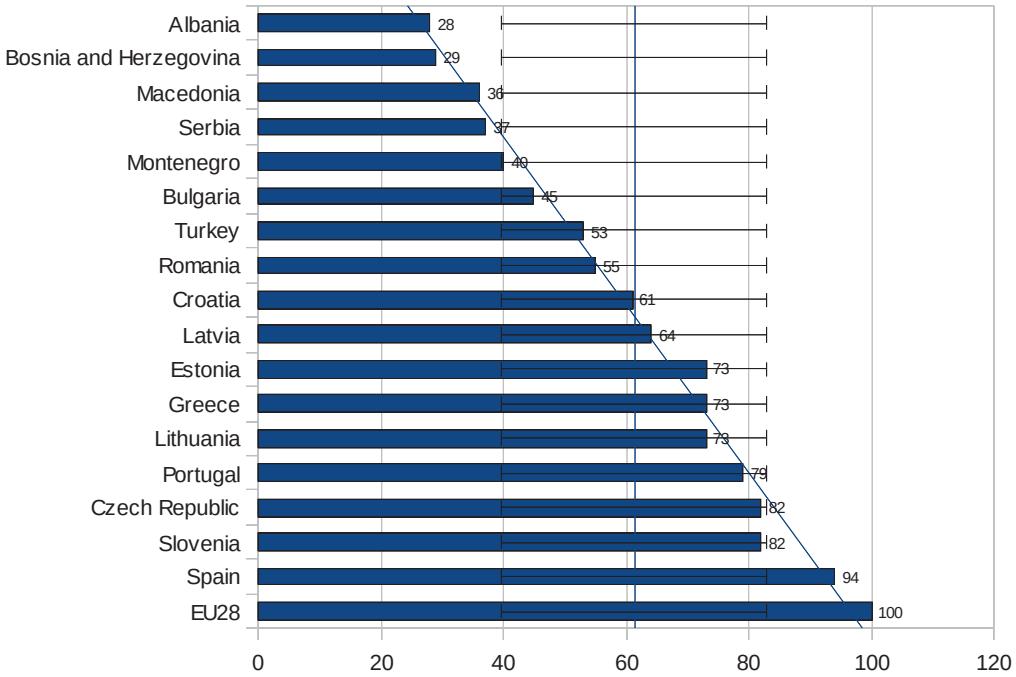
Real GDP growth in the first quarter of 2015, compared to the same quarter of the previous year amounted 2.1%. Seen through the areas of the classification of activities in the first quarter of 2015 the real fall in gross added value was recorded in the following sectors: Mining and quarrying 9.2%, Agriculture, forestry and fishing 3.7% Transportation and storage 3.1%. A significant real growth in gross added value was recorded in: Administrative and support service activities 14.8%, Professional, scientific and technical activities 6.8%, Wholesale and retail 5.5%.

Tabela br. 1: Quarterly gross domestic product Real growth rate

	2013				2014				2015
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**
Non-Seasonally adjusted Q/Q-4	2,5	2	3,1	2,1	2,7	-1	0	1,9	2,1
Seasonally adjusted -0,5 *Q/Q-1*	0,9	1,4	0,2	-0,3	0,5	-0,8	0,8	1,1	0,6
Final trend Q/Q-1	0,6	0,7	0,4	0,2	0,1	0,2	0,4	0,6	0,6

Source: Agency for statistics of Bosnia and Herzegovina

The standard of living in Bosnia and Herzegovina, as measured by GDP per capita adjusted for purchasing power parity (PPP), is only at the level of a third of the European average. This places BiH, together with Albania, for years now, at the very bottom of the list of countries published by EUROSTAT.



Graph No. 1: GDP per capita in purchasing power parity (Index EU28 = 100)
Source: *EUROSTAT*

This is not at all surprising given that only half of the population aged 15-64 of the country participates in the labor market, of which nearly one-third fails to find a job. Thus, in 2014 only 38.5% of the mentioned population was employed, which is only a half compared to the EU28 average. In April 2015, the number of employed persons in BiH amounted to 709,995, as compared to March 2015 the number of employed persons increased by 0.3%. In the same month of 2015 the number of registered unemployed in BiH amounted to 542.377. If we take as a base year of 2013

and compare April 2015 with April 2014, we will notice a drop in unemployment of 0.8%, or in absolute terms the number of people registered as unemployed fell by 4.600.

Table 2: Registered unemployment in BiH

Bosnia and Herzegovina (*April*)	**2013** **Total**	**2014** **Total**	**2015** **Total**
Unemployment/ end of period	549.567	546.977	542.377

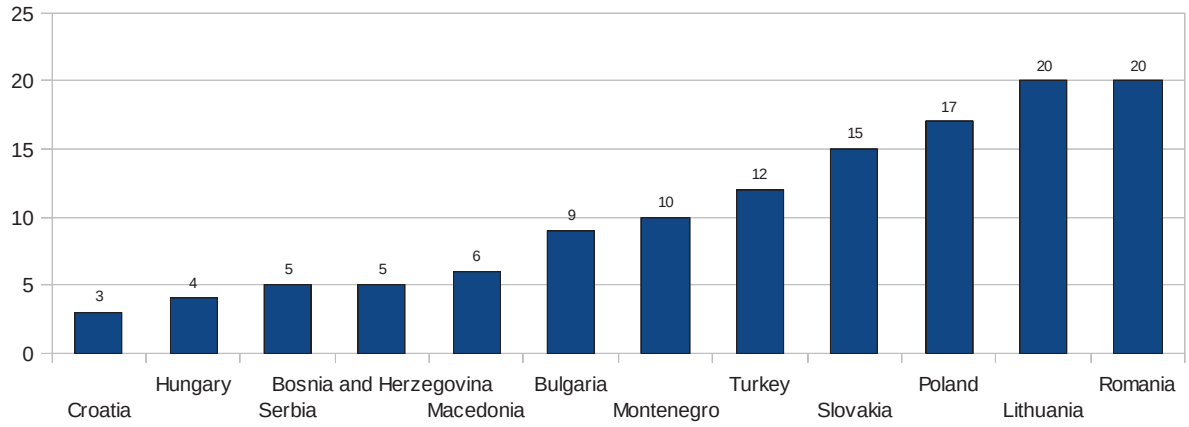
Source: Agency for statistics of Bosnia and Herzegovina

The lagging of living standard is likely a result of relatively low salaries in BiH, which are the result of poor positioning of the country in the international division of labor. The average monthly gross salary per employee in legal entities in BiH in April 2015 amounted to 1.294 KM, which represents the nominal decrease of 1.3% compared to December 2014, and as compared to April 2014 was nominally higher for 0.2%.

Namely, in the global value-added chain, BiH companies often get cheap jobs of processing, which mainly include low-skilled cheap labor force. In other words, to get closer to living standards in more developed countries it is necessary to provide not only more jobs but also to improve the country's position in international value-added chain (Samuelson and Nordhaus, 2007). Firstly, investments are needed, further requirements are increasing productivity through strengthening education and professional development, accompanied by reforms in the labor market.

However, despite the low living standards, in BiH appears to be insufficient to deal with and change this situation. Namely, for nine years in the period from 2005-13, the country has converged only 5% of EU28 average. This puts BiH, together with the inner part of the region, in the group of countries with the slowest progress in comparison with other transition countries of Europe which converge more rapidly despite higher living standards. The situation was of course aggravated by global financial crisis in 2008, followed by a series of recessions, stagnations and at best modest economic growth in BiH. This is of course far from necessary to begin a more serious approach of BiH to the more developed countries.

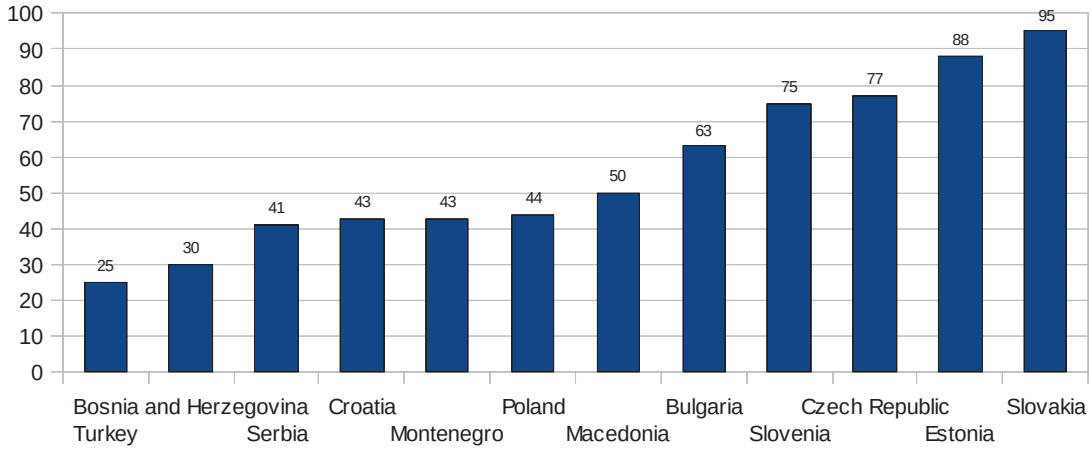
Assuming an average annual economic growth of 3% with an unchanged population, BiH would need less than 42 years to triple the standard of living and reach the current EU average. With an average growth of 5%, this period would be shortened to much more acceptable 24 years. Of course, the gap would be reduced, but not completely closed. To illustrate, for something like that BiH would need an average growth of 5.8% over 30 years, assuming an average annual growth in EU of 1.5% and unchanged population.



Graph No. 2: Approaching the standard of living of EU28 during 2005-2013. (%)
Source: *EUROSTAT*

3. Export competitiveness and deficit in BiH

BiH export of nearly 30% of GDP is quite low for a country with a small population. Specifically, it is at the level of much larger economies that are largely self-sufficient, and significantly below the others (mainly successful) transition countries in Europe. Compared with other countries in transition, the smallest deficit of one third is in comparison to Serbia (41% of GDP). Exporting is several times higher in% of GDP in more successful countries in the Baltic, the Czech Republic, Slovakia, Slovenia, etc. Since it is a small import dependent economy (BiH), this low exports has led to a significant foreign trade deficit of over 20%. Similar deficits are recorded only by Montenegro, Macedonia and partly Serbia, while other transition countries generally record either a surplus or a balance or significantly lower deficit.



Graph No.3: Export in % BDP-a (Average 2011.-2013.)
Source: EUROSTAT

BiH low export is largely a consequence of war destruction of capacities of the processing industry, which led to a lot of unsuccessful postwar transition, including privatization. A side effect of numerous shutdowns of production capacities is surplus of electricity, which makes a significant factor of BiH exports today. The result of the aforementioned developments in BiH is low share of processing industry in the gross added value of only approximately 13% of which (with the exception of Montenegro) the lowest compared to other countries in transition. This is particularly problematic given that the processing industry is the basic carrier of BH exports, and bearing in mind that the predominantly mountainous terrain in BiH generally restricts intensive farming, and that there is a lack of natural resources such as oil, gas, metal, etc.

In January 2015, exports amounted to 646 million KM, which is by 1.3% less than in January 2014, while imports amounted to 975 million KM, which is by 2.8% less than in January last year. The coverage of imports by exports amounted to 66.2%, while foreign trade goods deficit amounted to 329 million KM. Exports to CEFTA countries amounted 99 million KM, which is by 4.3% more than in January 2014, while imports amounted 112 million KM, which is by 9.1% more than in January last year. The coverage of imports by exports amounted to 88.3%. Exports to EU countries amounted 473 million KM, which is 3.6% less than in January 2014, while imports amounted 603 million KM, which is by 0.9% less than in January last year. The coverage of imports by exports amounted 78.5%.

Table No. 3: Export by main trade partners, according to sit sections, I 2015
(in thousands of KM)

Country	Total	Food and live animals	Beverages and tobacco	Crude materials, inedible, except fuels	Mineral fuels, lubricants and related materials	Animal and vegetable ils, fats and waxes	Chemicals and related products, n.e.s.	Manufactured goods classified chiefly by material	Machinery and transport equipment	Miscellaneous manufactured articles
Germany	109.653	917	63	7.516	1.790	652	1.177	17.440	23.659	56.396
Italy	101.816	2.917	41	10.065	34	-	6.977	37.627	6.210	37.865
Serbia	61.414	7.613	616	5.893	30.329	-	4340	8.877	1.373	2.372
Croatia	55.494	3.164	1.000	4.577	10.884	309	2465	19.830	2.947	10.317
Slovenia	51.401	1230	91	9.509	229	293	1.251	7.550	23.329	7.918
Astria	51.257	496	4	5.077	1.661	215	516	11.697	17.313	14.279

Source: Agency for statistics of Bosnia and Herzegovina

On the other hand, somewhat encouraging is a gradual reduction in unit labor costs (Rindyck and Rubinfeld, 2005) in the processing industry as a result of faster productivity growth in terms of gross salary. It is, however, only a relative success considering that a similar trend is present in many other transition economies. In fact, this is a good example of explanation of competitiveness, which clearly illustrates that progress itself is not sufficient if the competition progress is even faster.

In any case, a high deficit in BiH could easily become unsustainable in the long term. Namely, in the past it has been mainly financed by current and financial inflows of funds from abroad which became increasingly scarce since the outbreak of the global financial crisis. In case of insufficient growth of exports, the scarcity of cash inflows in the future could lead to a weakening of the deficit through limited funding of domestic demand from foreign sources. The latter would actually jeopardize the growth of already rather low standard of living, so that the strengthening of export competitiveness and attracting foreign capital is an imperative for future policy.

In addition, external unsustainability, through the decline in foreign exchange reserves, could ultimately jeopardize the currency board arrangement in BiH, which is directly resting on these reserves. In any case, the weakening of the deficit seems almost inevitable in the near future given the slow recovery of the European economy from where the most of the foreign inflows come from and that also makes up the largest part of BH export demand.

4. Competitiveness of savings and investment in BiH

All stated above indicate that the investments in new capacities are necessary. This would make export base to become expanded and a part of the large number of unemployed to become employed. It should also increase the apparently low-capital-labor and raise productivity, and thus the competitiveness of the BiH exports. However, for such a thing it is necessary to provide funding from domestic and foreign sources. There are discovered new aspects of the weak competitiveness of BiH economy.

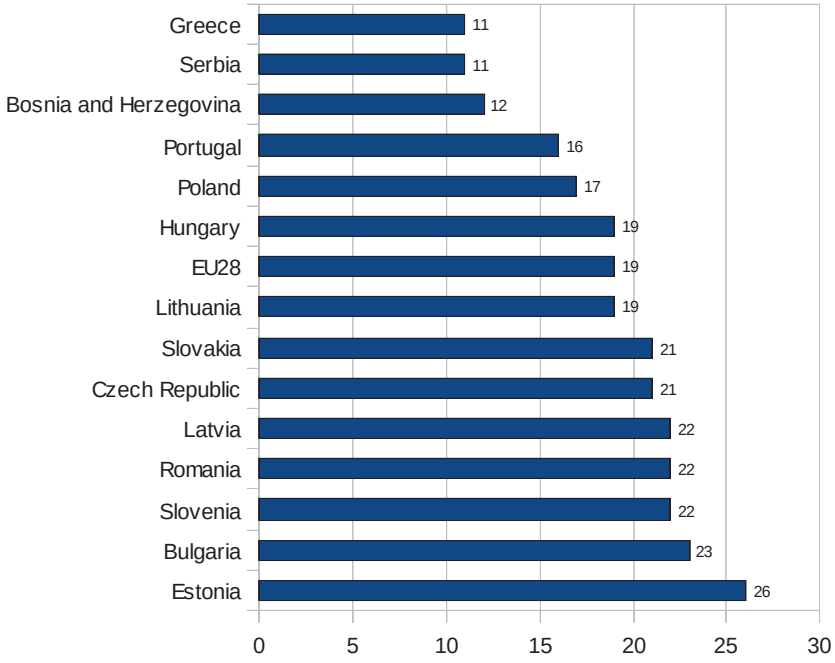
The value of total realized investment in fixed assets of legal entities in Bosnia and Herzegovina in 2012 amounted 4.488.543 thousand BAM, while in 2013 it amounted 4.617.861 thousand BAM, which represents an increase of 2.88%. Investments in new fixed assets in 2012 amounted 4.107.910 thousand BAM, while in 2013 these amounted 4.180.848 thousand BAM, which represents an increase of 1.78%.

Observed by the activity of investor, the biggest investments in the total investments in 2013 had: processing industry 16.76%, wholesale and retail 14.47%, professional, scientific and technical activities 12.44%, public administration and defense 11.36%, the production and supply of electric energy 8.53%.

According to the activities of investors, the largest share in implemented investments in new fixed assets in 2013 had: processing industry 15.67%, professional, scientific and technical activities

13.43%, wholesale and retail 13.07%, public administration and defense 12.42%, the production and supply of electric energy 9.37%.

The low domestic savings coupled with poor competitiveness in attracting foreign investment, high interest rates severely restrict investment in new capacities (Blanchard, 2012). The average gross national savings in Bosnia and Herzegovina of 10% in the period 2011 to 2013 is halved compared to the European average and the average of successful transition economies. Depending on the year, it was merely enough to finance from a half to two-thirds of BH investment. The rest of the investments are financed from foreign sources. Regardless of the extremely high dependence on foreign capital in comparison with other transition countries, BiH competitiveness in attracting foreign direct investment (FDI) is significantly lower than in those countries.

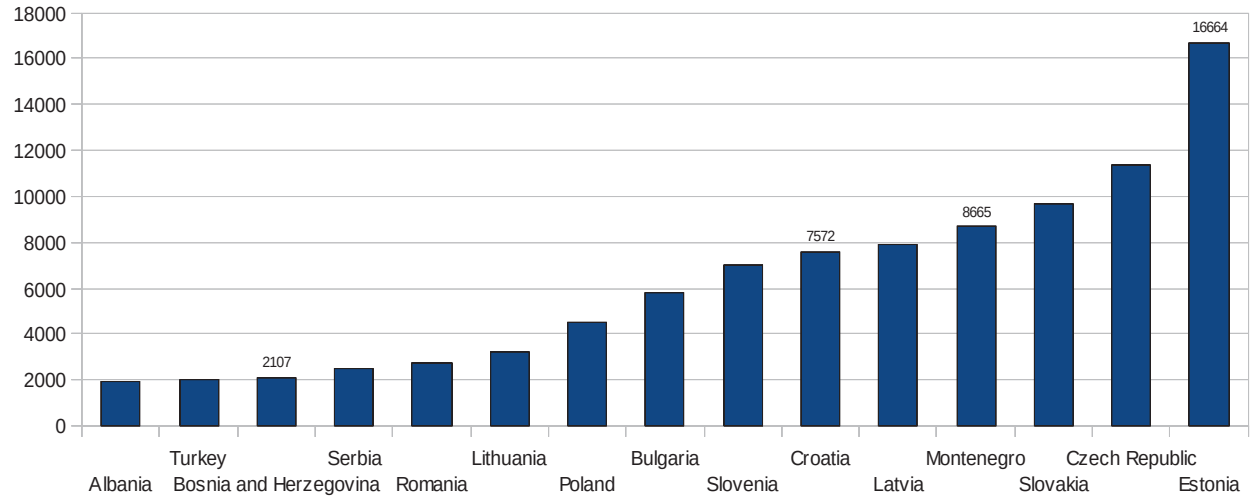


Graph No. 4: Gross national savings in % GDP
Source: EUROSTAT

Moreover, the balance of foreign direct investment per capita in most other countries in transition was twice (Porter, 1985), and even several times above that in BiH, although in some of these countries in 2013 the savings were even slightly greater than the investment. The residue was lower expressed in % of GDP, although BiH here, as well, occupies a very low position (43% of GDP).

Judging by the interest rates on loans and the country's credit rating, high risks of doing business could be an important reason why foreign investors do not decide to invest sufficiently in BiH. Extremely high interest rates on loans are another category where BiH is on the very bottom. Foreign-owned banks operating in BiH mainly seek multiple higher interest rates compared to loans originated in its territory justifying it by so called "risk premium".

On March 13th 2015, the agency for evaluation of the credit rating, Standard & Poor's, confirmed sovereign credit rating for Bosnia and Herzegovina, "B with a stable outlook," which also significantly affects the level of investment in BiH.



Graph No. 5: Balance of foreign direct investment per capita in USA$
Source: UNCTAD

As a result of low domestic savings, foreign investment and not very high credit rating (Stosic, 2007) of BiH, gross investments in fixed assets are weak and amount 16.8% of GDP in 2013. Despite the low starting base, this is below the other transition countries, including countries in the region. Assuming wear (depreciation) of fixed assets (at level of Croatia) of 15.8% of GDP, investment in new capacities in BiH in 2013 amounted only 1.7% of GDP. This is assuming a return on equity of 10% only a slight percentage increase in state capital in BiH from less than 0.2%.

In other words, the gross investments in BiH are sufficient only to replace existing capital spending and unfortunately hardly provide any increase in capacity necessary for employment growth and the convergence the living standards of the developed countries.

5. Conclusion

The question of competitiveness is extremely important for BiH due to a very low living standard and high foreign-trade deficit. Economic growth of recent years, and even the projected medium-term growth are insufficient to achieve the standards of developed countries in a reasonable time. The analysis indicates an under-developed export base and export on the one hand, and the relatively low level of investment coupled with poor domestic savings and insufficient foreign direct investment on the other hand. The unfavorable business environment in comparison with other countries is among the main reasons for the lack of investment and low savings in BiH. The same causes are likely to refuse foreign investors, hence the low level of foreign direct investment. Regarding this issue, so far BiH done very little which is indicated by 107th position on the list of countries in the last publication of the World Bank ("Doing Business"). This is a clear message to potential investors what kind of environment they can expect if they decide to invest in BiH. Therefore, it is essential to change the environment, and the message and image of the country along with it.

Improving competitiveness entails a number of challenges. For something like that, a national consensus and determination of all levels of society, all stakeholders implementing the necessary reforms is needed. The reforms involve an integrated approach throughout the country due to the fact that partial solutions can hardly bring the desired result. In other words, it is necessary to elaborate and adopt a unified strategy for increasing competitiveness with harmonized and complementary objectives and priorities, which would be the center of all reform processes in the country. This would ensure the coordination of the various reforms not only with a view to maximizing the success of the implementation, but also with the aim of reducing the potential risks

of compromising the standards of the individual layers of the population. A good example of this could be an attempt to reduce extremely high contribution rates on salaries of employees, which significantly burden the cost of labor, thereby jeopardizing the competitiveness of enterprises in BiH, and ultimately leading to high unemployment. Change of contributions should be coordinated with reforms of tax audits and reforms of pension and health systems, labor market reforms, etc.

Reference list

1. Blanchard, O. (2012). *Makroekonomija*. 5. edition. Mate izdanje. Zagreb.
2. Garelli, S. (2009). *The Fundamentals and history of competitiveness*. IMD World Competitiveness Yearbook.
3. Krugman, P. (2004). *Competitiveness: A Dangerious Opsession, Council on Foreign Relations Inc.*
4. Ostojić, D. (2005). *Konkurentnost države*. Miločerski ekonomski forum – Konkurentnost i evropski put. Beograd.
5. Porter, E. M. (1985). *Competitive Advantage*. New York: Simon & Schuster.
6. Pindyck, R. and Rubinfeld, D. (2005). *Mikroekonomija*. 5. edition. Mate izdanje. Zagreb.
7. Rosić I. and Veselinović P. (2008). *Nacionalna ekonomija*. Kragujevac: Ekonomski fakultet. Direkcija za razvoj malih i srednjih preduzeća Crne Gore. (n.d). Strategija na podsticanju konkurentnosti na mikro nivou 2011-2015. Podgorica.
8. Samuelson, P. and Nordhaus, W. *Ekonomija*. (2007). 19. edition. Mate izdanje. Zagreb.
9. Stošić B. (2007). *Menadžment inovacija: ekspertni sistemi, modeli i metodi*, FON, Beograd.
10. Ivanić, M. (2010). *Principi ekonomije*. Ekonomski fakultet, 3. edition. Banja Luka.
11. Agency for statistics of Bosnia and Herzegovina. (2015). Monthly bulletin. http://www.bhas.ba (accessed 04.07.2015.)
12. European Commission EUROSTAT. (2015). National accounts. http://www.ec.europa.eu (accessed 12.06.2015.)
13. UNCTAD. (2015). International statistics. http://www.unctad.org (accessed 15.06.2015.)

CROATIA AS AN INVESTMENT LOCATION FOR AUSTRIAN CORPORATES - AN ANALYSIS OF THE RELEVANT DETERMINANTS OF FDI.

Dr. Matthias Ruhri[1]

Dr. Robert Rybnicek[2]

Ilda Sabanovic[3]

Martin Mader[4]

Abstract

This paper attempts to point out the potential competitive advantages of Croatia as an investment location for Austrian companies, by applying a critical approach to the current investment conditions based on the Diamond model of Porter. This should ensure that companies, who are considering direct investments in Croatia, receive an overview of the opportunities and barriers in order to better plan their foreign activities. In order to to draw conclusions about its current situation, future prospects and appropriate development policies the country has been studied from different perspectives. The overall economic and legal environment was closely examined as well as the market conditions and the various investment incentives. As the analysis of Porter's diamond showed, Croatia has locational advantages but also disadvantages. A good infrastructure, large deposits of renewable resources, qualified human resources and an advantageous geographical position are important advantages for investing companies. The institutional barriers and bureaucracy represent the major weaknesses. The public administration and courts are still too slow and sometimes corrupt in the processing and approval of permits. The weak industrial sector with outdated technologies and the low degree of local competition are other obstacles to investment. The size of the country and therefore low local demand can also be seen as a disadvantage as well as the lack of innovation and high unemployment. Croatia also has relatively high labor costs compared to other countries in Southeast Europe and a low level of cooperation within and between clusters. The quality of the investment environment and the competitiveness of Croatia are directly dependent on the simultaneous improvement of all four main factors of Porter's diamond. Foremost institutional factors should be improved: the size of the administrative machinery reduced, processes automated and corruption curbed. The main responsibility should be taken by the state. In addition, the context for firm strategy and rivalry should be improved. For this purpose, the state should promote cluster development and the further strengthening of domestic competition as well as efficient corporate governance structures, which stimulate dynamics and innovation.

Keywords: *FDI, Investments, Croatia, Austria*

[1] *University of Graz, Center for Entrepreneurship and Applied Business Studies, matthias.ruhri@uni-graz.at*
[2] *University of Graz, Department of Corporate Leadership and Entrepreneurship, robert.rybnicek@uni-graz.at*
[3] *Steiermärkische Sparkasse Graz, Department of Group Communications, ilda.sabanovic@stei-ermaerkische.at*
[4] *University of Graz, Department of Corporate Leadership and Entrepreneurship, martin.mader@uni-graz.at*

Introduction

Today's world economy is characterised by increased interweaving of international markets. Advances in technology and reduced costs of transportation enable market aggregations, which, in turn, lead businesses to expansions and new investments. In search of suitable target markets, Austrian enterprises discovered possibilities in their immediate neighborhood. In the aftermath of the fall of the communist Yugoslavian Republic and the subsequent devastating wars, transition countries in the Balkans offered attractive investment possibilities. *(Hoek, 2009, p.1)* Among these countries was Croatia, which was badly damaged, from an economic point of view, after attaining independence in 1991 and being rattled by war and the long-lasting crisis that came along with it. As Croatia did not possess sufficient capital to finance necessary investments and substitute outdated technologies, it quickly became clear that the country would be unable to make its way out of the crisis without foreign investment. Over the years, the improvement of political circumstances, a certain macroeconomic stability as well as the country edging closer towards Europe have led to a growing interest by foreign investors .

The country provided an appealing market to Austrian businesses in particular as it was geographically close and offered promising future prospects. In addition, Austrian goods and services were enjoying a good reputation. The Austrian investors' interest was also reflected in the figures: Austria has by far been the biggest investor in the country for the last 20 years. It is hoped that through entering the European Union the economic conditions will further improve and attract foreign investment again, which has been declining in recent years. According to economic experts, the reasons for the decreased interest in investments in Croatia are to be found not only in the economic crisis but also in the country's rather unalluring investment climate.

In order for Croatia to generate lasting competitive advantages for itself, it must systematically pursue a regional economic policy which strengthens location-specific resources and enables international corporations to gain competitive advantages for themselves by choosing Croatia. *(Hock, 2009, p.1)* Therefore, the following report attempts to assess the potential competitive advantage of Croatia as an investment location for Austrian businesses by critically discussing the conditions regarding both investment and location.

Porter`s diamond

To show the competitiveness of countries and other geographic units and to answer the question why certain states dispose of specific competitive advantages while others do not, Michael E. Porter developed the Diamond model, which he first published in 1990 in the article "The Competitive Advantage of Nations". This theory is of special interest for the present work because the determinants discussed in the following section influence a company's choice of location and can be used to evaluate the competitiveness of a certain location, in this case Croatia. Hence they show the basic conditions in which businesses operate in a country. The diamond model represents a very comprehensive model and serves as the most frequently used basis for empirical industry or country analyses. *(Schiele, 2001, p.61)* According to Fischer, the diamond model is suitable when judging the competitiveness of nations because it offers a pragmatic framework with appropriate instruments for the analysis of nations, which is why it is often applied in practice and was consulted for the present work as well. *(Fischer, 2008, p.98)* According to publicly available resources, this paper is the first of its kind about Croatia. Therefore, it is not only valuable as a guideline for decision-makers in Croatia but as a model for otherthreshold countries as well. Indeed, this report demonstrates that in spite of potential restrictions, the diamond model offers a useful starting point for the analysis of suitable development politics in threshold countries like Croatia.

Porter identifies six broad factors of comparative advantage (four main elements and two minor elements): Factor conditions, demand conditions, related and supporting industries, firm strategy, structure and rivalry as well as government and chance. The better the six factors interact with each other, the more likely it becomes that the firms are internationally competitive in their respective industry. *(Kutschker and Schmid, 2008, p.449)* The factors are dynamic, interrelated and were graphically depicted by Porter as a diamond with four determinants. *(Porter, 1999, p.109 ff.)*

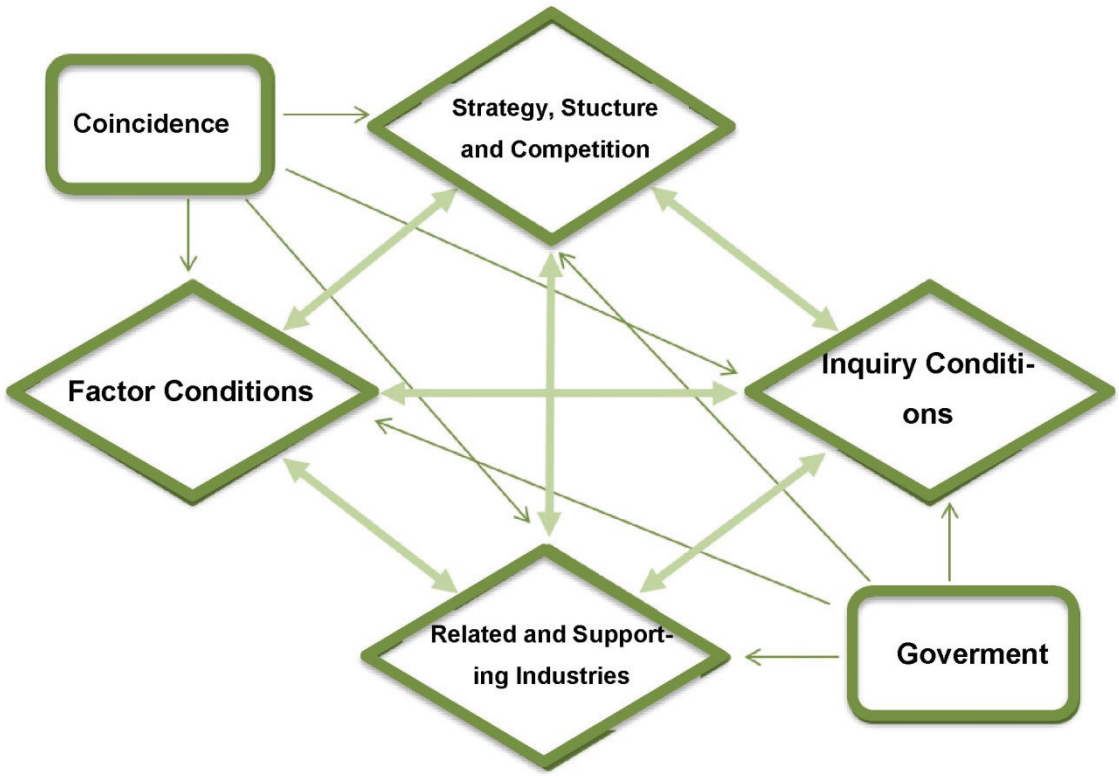


Figure 1: The Porter's Diamond (Porter, 1999)

Applying the Diamond model to Croatia

In this section, the competitiveness and attractiveness of Croatia for foreign investors will be elaborated based on an extensive literature analysis with the help of Porter's diamond model. The Diamond model is specifically applied to Croatia as well as graphically summarized at the end of the chapter. All four main factors of the model are discussed practically as follows.

Factor conditions

The Diamond model divides the factor conditions into five categories: physical, human, knowledge and capital resources as well as infrastructure which includes the transport and communication infrastructure as well as the institutional, juridical and political infrastructure.

Geographical conditions and natural resources

Croatia lies along the corridor between Mediterranean and Central Europe which means it has a highly favorable position in a geostrategic sense. The country borders with Slovenia, Hungary, Serbia, Montenegro, Bosnia-Herzegovina and has a sea border with Italy.

Croatia can be divided into three main geographic regions:

- Pannonian and peri-Pannonian region - this region consists predominantly of plain and gentle hill country (eastern and northwestern Croatia). Besides, the area of eastern Slovenia and Baranya (southern Hungary) is especially richl in fertile agricultural land and woods and is bordered in the North by the Drava, in the South by the Sava and in the East by the Danube. The capital Zagreb, situated in the northwestern region of Croatia, is the economic and industrial hub of the country. *(KPMG, 2011, p.3 [online])*
- The mountainous parts of the country separate the eastern and northwestern parts of Croatia from the coastal region. The future development will be based on the already existing timber industry and the unused potential of organic farming in this region. In addition, the region is highly popular due to winter and farm tourism as well as its lakes and national parks. *(KPMG, 2011, p. 4 [online])*
- The Adriatic region in the east stretches from Istria in the North to Dalmatia in the South. The whole economy of the country strongly depends on tourism revenue which is generated in this region and which has been increasing yearly.

Besides the advantageous geographical circumstances the country is also rich in natural resources like oil, bauxite, iron, calcium, asphalt, salt, and water. *(KPMG, 2011, p.4 [online])*

The mentioned conditions favor the cultivation of numerous agricultural products. Starting from different agricultural cultures, this entails winegrowing, continental and Mediterranean fruits and vegetables as well as fish farming. The agricultural area (excluding forest areas) stands at just under 1.33 million hectare, which makes up approximately 23% of Croatia’s total land area. About 80% of it are used agriculturally. The largest areas under cultivation are in the North and Northeast of the country, in Slavonia, the ‘breadbasket’ of the country. However, Croatia is still unable to cover its agricultural demand independently and is for the better part a net importer of agricultural goods. *(Deutsch-Kroatische Industrie- und Handelskammer, 2011, p.1)*

Human resources

According to Porter & Sölvell, specific human capital and knowledge resources are key factors in the generation of lasting competitive advantages as it is hard to imitate or substitute them. *(Windsperger and Simlinger, 2003, p.6)*

In the Human Development Report in 2013[5] Croatia had an HDI-value of 0.812 and was assigned to the group 'very high human development'. For this reason, the country ranks 47th out of 187 countries considered. By comparison, the European Union and Austria show values of 0.875 and 0.895 respectively, with Austria thereby occupying 18th place in the country comparison. *(Human Development Report, 2014, p.3)* The fairly good ranking of Croatia was not least achieved by its considerably high human capital. Croatia's literacy rate of 99.2% is one of the highest in the region. *(Kroatisches Statisti-kamt, 2013, p.24)* The majority of the population - more than 52% - has a high school diploma, while 30% have only finished elementary school (Note: 8 years in Croatia). Although the number of universities (public and private) has doubled in the last 7 years to reach 122, Croatia ranks in the European midrange with respect to higher education qualifications. The average of European academics between 25 and 64 years of age is 28.8% while Croatia is in 7th position with 20.4%, ahead of Austria with 19.3%. *(OECD, 2013, p.6 [online]; ORF, 2013, Bildungsstand hoch, Akademikerquote niedrig [online])* The city of Zagreb shows the highest portion of highly educated people. These indicators are thought-provoking because a highly educated workforce, alongside other macroeco-nomic dimensions, is the bearer of economic growth. Furthermore, regions with a high portion of such people have more success in attracting foreign investors. (*Drvenkar and Frajman-Jaksic, 2010, p.5)* Croatia is struggling with the decline of the growth in population, as most European countries are. The Pannonian region registers the largest migration streams. The job market still remains unreformed and is shrinking due to the economic crisis. In fact, Croatia shows the third-highest youth unemployment in Europe, behind Greece and Spain. *(European Commission, 2013, Croatia: Higher Education Institutions [online])* According to the Brain Drain ranking by the World Economic forum (WEF), the country ranks 126th out of 144 countries. *(World Economic Forum, 2013, p.147)*

Croatia's labor costs are higher than those of other Eastern European countries. At present, they are at about the same level as the most expensive EU member states from Central and Eastern Europe, but significantly below the cost level of the neighboring Slovenia and other Western European countries. *(World Economic Forum, 2013, p.147)*

[5] *"The 2013 Human Development Report presents Human Development Index (HDI) values and ranks for 187 countries and UN-recognized territories, along with the inequality-adjusted HDI for 132 countries, the Gender Inequality Index for 148 countries, and the Multidimensional Poverty Index for 104 countriep.The HDI is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living." UNDP, Explanatory note on 2013 HDR composite indices, p.1*

Infrastructure

The quality of the infrastructure of a country directly influences its competitiveness because it determines transportation costs. Besides, it also affects transaction costs as the communication system, mail and parcel service as well as payments and transfers which are all covered under the term infrastructure. *(Hockmann and Ramanovich, 2006, p.21)* In addition to a well-developed road network with frequented routes of transportation from Zagreb to Rijeka, Split, Ljubljana, Hungary, and so forth, Croatia also operates seven international airports in Zagreb, Pula, Split, Dubrovnik, Rijeka, Osijek and Zadar, as well as an extensive network of goods and passenger ports (Rijeka, Pula, Zadar, Split, Šibenik, Ploče, Dubrovnik). The North and Northwest of Croatia (Istria and Zagorje) are very well-connected to the capital as well as Eastern and Western Europe through roads. Croatia is purposefully pursuing plans to further develop the existing highways and to build new ones in order to connect the country with highways on a large scale. *(KPMG, 2011, p.4)* In the context of its EU membership, Croatia has become part of the Trans-European Transport Network (TEN-T) policy. The EU has thereby defined ten corridors of traffic which are considered core networks in EU territory. Three of these networks will run through Croatia: the Mediterranean, the Baltic-Adriatic and the Strasbourg-Danube corridor. *(Jones Lang LaSalle, 2013, p.16)*

The Croatian Railways run railroad connections between Zagreb as a hub and other big cities. Most European capitals are easily accessible by train from Zagreb. Further development of the railway network to strengthen the existing tram network can help Croatia become both an entrance and an exit point for goods coming from the EU or into the EU. *(Jones Lang LaSalle, 2013, p.17)* In particular, the state plans to expand the railway connections to Rijeka in order to strengthen this port and the neighboring ports of Koper, Venice and Trieste in their competitive position among the established ports of Northern Europe. The Croatian ports spread along the entire Adriatic coast and are well-equipped to accommodate large ocean ships. The four major river ports (Vukovar, Sisak, Slavonski Brod and Osijek) allow direct access to the Rhine-Main-Danube system, which connects the Western European and Baltic ports with the Black Sea ports. *(Jones Lang LaSalle, 2013, p.17)* Croatia also has a well-developed telecommunications and internet infrastructure. *(Ministerium für Gewerbe und Kleine- und Mittelbetriebe, 2013, p.25)*

Demand conditions

The demand conditions are determined by the aggregate demand of the country, the consumer habits and the purchasing power, which reflects the standard of living of the population. Croatia's internal market is relatively small and is limited by the population size of approximately 4.4 million.

Croatia's GDP per capita - which is an important indicator for prosperity - amounts to 60% of the EU27 average. Even though Croatia is a regional leader just behind Slovenia, by European comparison it is still in the bottom part of the ranking. Before the crisis, during the years 1999-2008, Croatia was able to increase its purchasing power by more than 50%. Today there are substantial differences in buying power within Croatia. The Northwest of Croatia shows the highest income, followed by the coastal region of the country. *(Drvenkar and Frajman-Jaksic, 2010, p.6)* According to statements made by the government, it is planned to increase the purchasing power by means of tax changes in 2015, which should grant a higher income to approximately one million citizens. Judging by salary, Croatia is currently the second country of ex-Yugoslavia, along with Slovenia, that has an average salary of more than 500 euros. Nevertheless, approximately 20.5% of households still pay their operating expenses with delay, while in the EU15 countries[6] this is the case for merely 7%. About 62% of all budget expenditures are used for basic needs such as food, rent and medical care.[7] On a positive note, however, the number of jobholders has been rising steadily for the past 10 years in spite of high unemployment. Along with a positive business development in the future, an increase in purchasing power as well as a rise in demand for goods can be expected.

Corporate strategy, business structure and competition

The context in which corporate strategies are realized and states of competition occur has an important influence on how firms operate. A high level of competition in the local market is important in order to be able to achieve success. *(Carlin, Achaffer and Seabright, 2005, p.7)* Furthermore, competitors are what determine the market entry and exit of a business. On the basis of this fourth component of the Diamond model one can judge the competitive environment and marketability of every economy.

Although according to the Worldwide Competitiveness report 2014 *(World Economic Forum, 2014, p.63)* competitive advantages were observed in terms of the general tax level and infrastructure, other factors again attest to the serious situation of the Croatian market. With regards to the competition that refers primarily to the goods and services market competitive disadvantages[8] were shown concerning the factors dominance in the market (110), legal framework for foreign investors (140), and efficiency of the judicial system in resolving lawsuits (134). The country achieved mediocre results regarding the intensity of local competition (83), efficiency of anti-monopoly strategy (97), protection of property rights (92) as well as in corporate governance, which is reflected in inefficiency at board level (96) and the weak influence of auditing and reporting standards (94). In addition, the competitive situation is strongly characterised by deeply rooted corruption that is often picked out as a central theme in international country reports as well. According to such reports, local politicians and officials still have the final say about the realization of an investment project in too many cases, and even expect bribes in order for them to decide in favor of the investment.

Croatia has inherited features of a socialistic corporate governance and an autocratic management system from the old Yugoslavian system. During the process of transition, Croatia was able to achieve considerable progress in the conversion of state-owned enterprises into private ownership as well as in advancing corporate governance and corporate restructuring. Nevertheless, it is crucial to further promote efficient corporate governance guidelines and management systems in newly founded or privatized businesses so that they can remain competitive. Companies should be encouraged to invest in corporate restructurings and to develop advanced management practices. *(Babic, Pufnik and Stucka, 2001, p.20)*

The aforementioned weaknesses highlight the need for structural changes in the sphere of the state but also concerning the strengthening of competition in the domestic market, both of which are necessary for the Croatian economy to show all the characteristics of a market economy.

---

[6] *Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Nether lands, Portugal, Spain, Sweden and United Kingdom*

[7] *Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Nether lands, Portugal, Spain, Sweden and United Kingdom*

[8] *However all factors, where Croatia takes a place worse than 100 under 144 examined countries canbe seen as disadvantage*

Related and supporting industries

A good cooperation between the industry, the relevant economic institutions, financial institutions and suppliers can influence the whole efficiency and effectiveness considerably. The accumulated information of the institutions about new operating procedures, the optimization of input application and new technologies can contribute significantly to the improved competitiveness of the Croatian economy. In light of the numerous institutions for direct or indirect support of economic development one can conclude that this segment of Porter's diamond is developed relatively well. *(Drvenkar and Frajman-Jaksic, 2010, p.7)* Thus enterprises have access to information of the ministry of economy, labor and entrepreneurship, and can additionally fall back on the knowledge of the academic community in the respective region and beyond. Even more, they have access to guarantees of the Croatian agency for SMEs, to favorable loans of the Croatian bank for reconstruction and development, and to numerous developing agencies, incubators and similar institutions. Furthermore, there is a huge number of international, national and local fairs in Croatia which represent a good opportunity to meet suppliers but also customers and to initiate business connections. *(Banozic and Drvenkar, 2013, p.71)* Beside this institutional support it is also necessary to reform the secondary and tertiary education systems according to the demands of the economy, so that educational institutions can act in support of the economy. The already existing educational infrastructure provides a good starting point. *(Drvenkar and Frajman-Jaksic, 2010, p.7)*

State

The factor 'state' is intended to explain the influence of the government on the promotion of competitiveness. The state creates the macroeconomic sphere in which firms operate, passes laws and strategies which are important for the development of the corporate environment and shapes the general commercial and investment climate through tax and fiscal policy as well as the education system and other measures. In recent times, however, the state has done little for the abolition of administrative barriers and the black economy. *(Drvenkar and Frajman-Jaksic, 2010, p.9)* This is also reflected in the World Competitiveness Report of 2013, in which Croatia ranks 87th out of 144 countries in the category 'Institutions'. In fact, the country has ranked among the worst in this aspect for years. *(World Economic Forum, 2014, p.164)*

Overall, however, the position of Croatia is improving, although its progress is rather slow. Despite many projects, development strategies and initiatives, their application is inadequate and satisfactory economic indicators are lacking. In addition, non-independent courts, low legal proprietary protection and disarrayed land registers spell a lot of work for future governments. *(World Economic Forum, 2014, p.165)*

The Croatian state should take the following measures for improvement: *(World Economic Forum, 2014, p.165)*

- Maintain macroeconomic stability by means of adequate tax and monetary policy
- Continue the transparent privatization process

Tackle corruption at all levels in order to create a business friendly environment, increase the transparency of state activities by applying international auditing standards, and create capacities to support entrepreneurs and especially young companies

Enforce the creation of clusters so that basic knowledge, applied research and innovations are stimulated. In the long term this would enable Croatia to become an exporter of technology, knowledge and innovation and thereby overcome all current comparative disadvantages. In order to release the scientific potential, the state should encourage partnerships between universities, research centers and businesses. Such partnerships should operate like commercial units and offer

knowledge as well as information-based products and services to the domestic industry and foreign markets.

Coincidence

Identifying opportunities in the surroundings and quickly reacting to these can lead to a competitive advantage. This advantage can be the result of innovative activities or the discovery of new solutions in the production process. The analysis of import structures of certain countries can be of great use in the recognition of opportunities. For the industry, chances can be found in the adaptation or conversion of the production towards products which are in demand in the world market. Beside the adaptation of the industrial production to the world demand, it is also necessary to recognize and exploit the potential of financial support, which is available for the revitalisation of the Croatian industry within the scope of the country's EU membership.*(Banozic and Drvenkar, 2013, p.82)* According to official bodies, applications for financial support from the EU are still only submitted to a minor extent. For the most part, this is due to a lack of knowledge as to how to file an application for support.

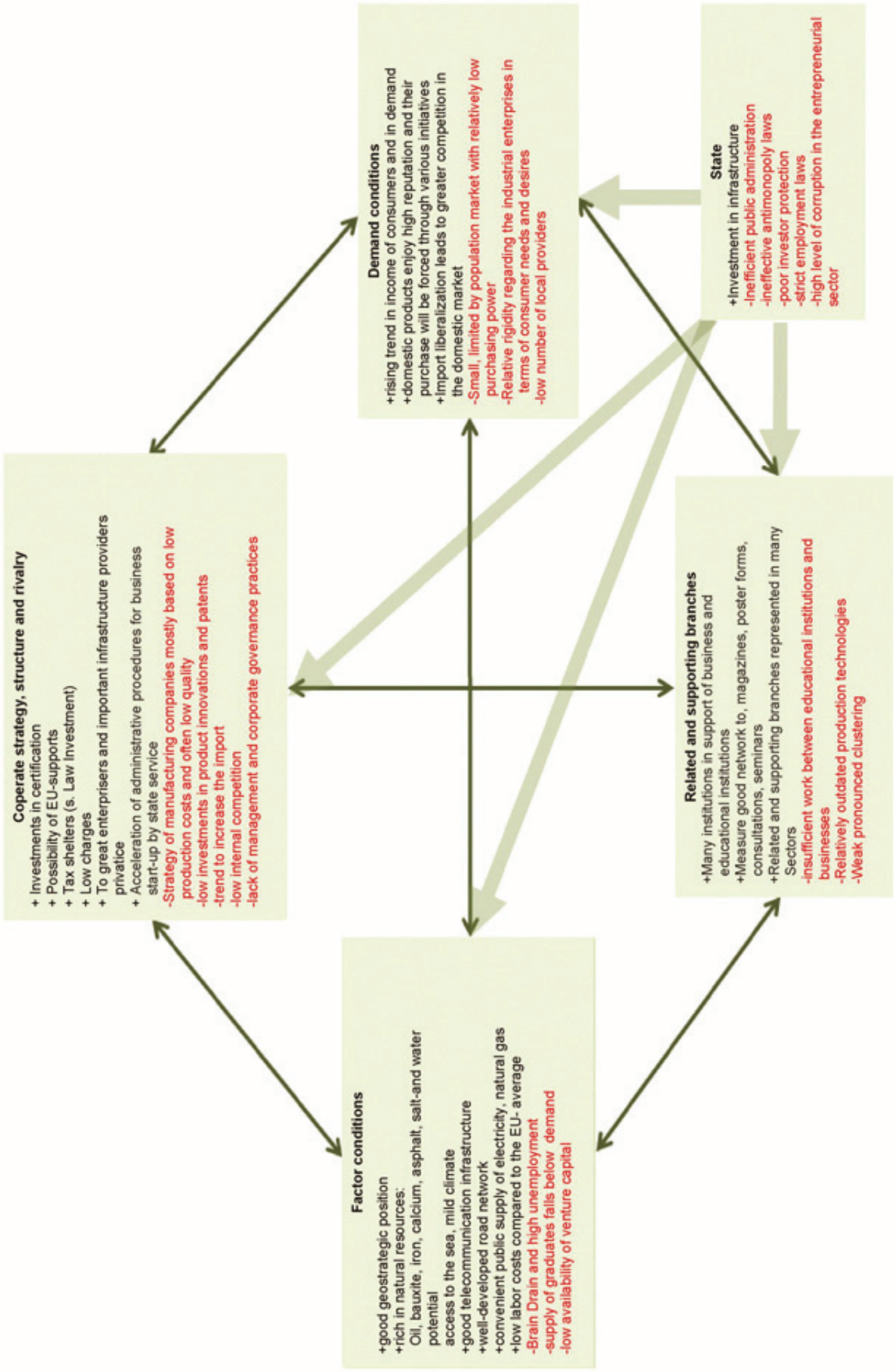


Figure 2: Outcomes of Porter's Diamond describing Croatia (Source: Authors' illustration)

Conclusion

The aim of the present work was to analyse the economic location of Croatia in order to present a framework for investors so that they get an idea about the potentials of the country. Although partly discussed controversially, the diamond model offers a good base to depict recommendations for supporting competitiveness.

As the analysis of Porter's diamond has shown Croatia has some location advantages but also disadvantages: one of the positive aspects is that the country has successfully transformed from a plan- to a market-driven economy and already revives his political, economic, juridical and social sphere since15 years.

Privatization was concluded in most sectors for which reason foreign investors were lured into the country. A good infrastructure in which constantly is invested (traffic, telecommunications, energy), qualified human resources with distinctive foreign linguistic knowledge as well as an advantageous geographic situation and historical aggreement to Austria are important advantages for Austrian companies looking for investments. Also availability of renewable resources like water and above all the strong tourism sector are great benefits for investing in Croatia. Beside the positive aspects of the location, however, there are also some factors that could be improved.

The basic conditions in Croatia for companies' strategies and their sense of competitiveness are rather disadvantageous for entrepreneurs. The biggest weaknesses are institutional obstacles and bureaucratization. Public administration and courts are still too slow, uncooperative and often corrupt when allowing and approving permissions. A weak industrial sector with outdated technologies as well as a low degree of local competitiveness due to locally dominating and state-owned companies are other investment impediments.

The size of the country and a low local inquiry can also be seen as a disadvantage as well as missing innovation attempts and high unemployment. Moreover, Croatia has relatively high labor costs in comparison to other countries of Southeast Europe and a slightly distinctive cooperation in and between the clusters. The quality of the investment sphere and the competitiveness of Croatia are directly linked to the simultaneous improvement of all four main factors of Porter's diamond. Primarily, the institutional factors should be improved that are as follows: the size of the administrative apparatus should be diminished, processes should be automated and the corruption must be dammed. Responsibility has to be beard by the state itself. Besides, the context for companies' strategies and their competition should be improved. In order to do so, the state should speed up cluster development and strengthen home competition as well as foster efficient corporate governance structures which stimulate dynamism and innovation. Moreover mechanisms should be developed that adapt education systems to future economic needs, so that the Brain Ddrain and surplus on the one hand or lack of certain occupations on the other hand can be avoided. To draw foreign direct investments, it is necessary to offer attractive supports in the form of tax advantages, attractive loans or infrastructure investments. Already agreed reforms and investment laws, however, show that there has been done effort to attract foreign investors but nevertheless they are rather formalistic and still not satisfying.

With the EU entry new chances arise for the country. The future outlook for returning growth is positive since joining the Union and also the access to the Croatian market should become easier for foreign enterprises. Moreover, new possibilities should become available for an accelerated development due to raised appropriations in many areas.

The disadvantages of Croatia's small market volume and a low inquiry are improved with the access to the EU home market which is a market that is approximately 100 times larger than the

Croatian one. In addition, the four fundamental freedoms are gradually implemented for which reason companies can become active in the whole European Area without restrictions.

The authors add that achieving juridical and institutional basic conditions and a stable macroeconomic sphere are necessary, but not sufficient in order to ensure a continuous growth and a sustainable development. In particular they recommend state initiatives which attract foreign direct investments that aim at creating new industrial clusters.

The results of this work can be a starting point for other scientific research in the area of foreign direct investments or enterprise foundations in Croatia. With quantitative methods empirical relations could be determined between the influence of theoretically compiled determinants of foreign direct investments and the distribution of direct investment. In addition, it could be examined how the basic conditions of enterprise foundations have been developed after EU entry when looking at a certain time span.

Also, it is recommended to use the theoretical scaffolding (diamond model) for other research, because then science could be based on already existing findings (e.g. from this work) so that the diamond could steadily be extended through revisions or new formulations of questions. Thus knowledge can be accumulated and submitted over and over again in a format that is already known and proven. Moreover, analysing the competitiveness of single branches in Croatia when using this model could also be informative.

Reference list

1. Babic, A./ Pufnik, A./ Stucka, T. (2001): Teorija i stvarnost inozemnih izravnih ulaganja u svijetu i u tranzicijskim zemljama s posebnim osvrtom na Hrvatsku, Zagreb.
2. Banozic, M./ Drvenkar, N. (2013): Regionalna vinska Cesta panonske Hrvatske, 62-74, Osijek.
3. Carlin, W./ Achaffer, M./ Seabright, P. (2005): A Minimum of Rivalry. Evidence from Transition Economies on the Importance of Competition for Innovation and Growth, William Davidson Institute Working Paper No. 670. University of Chicago Press, pp. 27-50.
4. Deutsch-Kroatische Industrie- und Handelskammer (2014): Kroatien Landwirtschaft, http://www.agrarexportfoerderung.de/fileadmin/sites/default/files/Mitteilun-gen-Ausland/KroatienLandwirtschaft_02.pdf (accessed 08.08.2015.)
5. Die Welt (2013): Kroatien ist bereits das nächste Sorgenkind der EU, http://www.welt.de/wirtschaft/article117586658/Kroatien-ist-bereits-das-naechste-Sorgenkind-der-EU.html (accessed 07.08.2015.)
6. Drvenkar, N./ Frajman-Jaksic, A. (2010): Croatian Industry Development Guidelines, Discussion Paper, University Osijek, Osijek.
7. European Commission (2013): Croatia- Higher Education Institutions, http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/coun-try_pages/hr/country?section=ResearchPerformers&subsection=HigherEduca-tionInstitutions (accessed 30.07.2015.)
8. Fischer, E. (2008): Das kompetenzorientierte Management der touristischen Destina-tion. Identifikation und Entwicklung kooperativer Kernkompetenzen, Gabler, Wiesbaden.
9. Hockmann, H./ Ramanovich, M. (2006): Zur Wettbewerbsfähigkeit der weissrussi-schen Milchwirtschaft: Eine Anwendung des Porterschen Diamanten. Discussion Papers 1, Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO), Halle (Saale).
10. Hoek, S. (2009): Investitionsbedingungen für deutsche Unternehmen in Kroatien, GRIN

Verlag GmbH, München.
11. Jones Lang LaSalle (2013): Made in Croatia. Investors Guide to Manufacturing and Logistics, http://www.aik-invest.hr/wp-content/uploads/2013/01/Made_In_Croatia_FINAL__.pdf (accessed 07.08.2015.)
12. KPMG (2011.): Investment in Croatia, https://www.kpmg.com/HR/en/Documents/Investment_In_Croatia2011Web.pdf (accessed 08.08.2015.)
13. Kroatisches Statistikamt (2014): Statistical information 2013, Website Kroatisches Statistikamt, http://www.dzs.hr/Eng/Publication/stat_year.html (accessed 30.07.2015.)
14. Kutschker, M./ Schmid, S. (2008): Internationales Management, 6. Auflage, Oldenbourg Wissenschaftsverlag, München.
15. Ministerium für Gewerbe und Kleine- und Mittelbetriebe (2013): Vodic za mala i srednja trgovacka drustva, herausgegeben von Ministerium für Gewerbe und Kleine- und Mittelbetriebe, Zagreb.
16. OECD (2014): Education at a glance 2013, http://www.oecd.org/edu/Austria_EAG2013%20Country%20Note.pdf (accessed 31.07.2015.)
17. Porter, M.E. (1999): Wettbewerb und Strategie. Econ Verlag, München.
18. Schiele, H. (2001): Strategisches Management in Wertschöpfungssystemen: Clusterbezogene Umweltanalyse - Gestaltungsempfehlungen - Anwendungsfall, Gabler, Wiesbaden.
19. Science ORF (2013): Bildungsstand hoch, Akademikerquote niedrig, http://science.orf.at/stories/1720231/ (accessed 31.07.2015.)
20. The Worldbank (2014): Croatia Overview, http://www.worldbank.org/en/country/croatia/overview (accessed 07.08.2015.)
21. UNDP (2013): Human Development Report 2013, http://hdr.undp.org/en/2013-report (accessed 31.07.2015.)
22. UNDP (2014): Human Development Report 2014, http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/HRV.pdf (accessed 31.07.2015.)
23. Windsperger J./ Simlinger A. (2003): Headquarter-Vorteile Wiens in Zentraleuropa, Integration des Porter-Modells mit dem ressourcenorientierten Ansatz der Unternehmenstheorie, Betriebswirtschaftszentrum Universität Wien, Wien.
24. World Economic Forum (2012): Global Competitiveness Report 2012-2013, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf (accessed 31.07.2015.)
25. World Economic Forum (2014): Global Competitiveness Report 2014-2015, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf (accessed 07.08.2015.)

VIRTUALIZATION OF GROWTH OF THE WESTERN BALKAN COUNTRIES, CAUSED BY PRIVATIZATION-BASED FOREIGN CAPITAL INFLOWS

SlobodanCvetanović, Ph.D., Full-time Professor[48]

Danijela Despotović, Ph.D., Assoiciate Professor[49]

MiroljubNikolić, PhD[50]

Abstract

The research subject of this paper is economic growth, Foreign direct investment (FDI), and privatization-based inflows of the six Western Balkan countries (Albania, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro, and Croatia) in the period 2001-2013. The starting hypothesis is that their economic growth rates before the crisis (2001-2008) were unrealistically high, representing a kind of virtualization of the expressed economic growth of these countries. The phenomenon of virtualization of economic growth of these countries in the above-mentioned period was caused by unusually high inflows of foreign capital, predominantly based on the privatization process of state enterprises, as one of the inevitable phases of the transition process. The applied regression analysis, where the independent variable was the amount of Foreign direct investment, and the dependent variable the real economic growth rate, and the resulting regression model, confirmed the interdependence of these phenomena. It has been concluded that the reduction in the economic growth rate of the analyzed countries in the period 2009-2013, in relation to an eight-year period that preceded the global economic crisis, was, in addition to the crisis itself, affected by the rapid decrease in foreign capital inflows from privatization of state enterprises. The effects of the global economic crisis had a substantial negative impact on economic growth in the period 2009-2013.

***Key words**: economic growth, virtualization of economic growth, the Western Balkan countries, foreign direct investment, the global economic crisis.*

[48]Faculty of Economics – University of Niš, Office address: 11, Trg kralja Aleksandra Ujedinitelja, 18000 Niš, Serbia, e-mail adress: slobodan.cvetanovic@eknfak.ni.ac.rs

[49]Faculty of Economics – University of Kragujevac, Office address: Djure Pucara Starog street 3, 34000 Kragujevac, Serbia, e-mail adress: ddespotovic@ kg.ac.rs

[50]Ministry of Economy, Department for Regional Development and Strategic Analyses of the Economy, Kneza Milosa 20, 11000 Belgrade, Serbia, e –mail adress: miroljubnk@gmail.com

Introduction

Regarding the topic of economic development financing, the focus is on the complex issues of achieving a sufficient sum of national savings and its efficient allocation to the most productive activities (Dragutinović, Filipović, Cvetanović, 2014). Generally, over the last fifty years that preceded the economic crisis in 2008, market economies have successfully used domestic and foreign sources for funding quality economic growth (Cvetanović, Mladenović, 2013). The question is what about the participation of domestic and foreign sources for funding economic development of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro and Croatia) – economically the least developed European region. The paper presents both the theoretical consideration about importance of domestic and foreign resources for development financing and the explicated data on economic growth, Gross domestic savings percentage of GDP and External debt stocks (% of GNI) in the Western Balkans, in the 2001-2013 period. The starting point of view is that world in 2011-2008 was characterized by economic and especially financial globalization, the phenomena that had obvious but unequal impact on the economic growth financing sources structure, in some countries. Financial globalization process during 2008 led to the beginning of the financial crisis manifestation, which evolved into a global economic crisis, in a relatively short time. Although it is a short period of time, it seems very interesting to look at the real and potential effects of global recession trends on economic growth, Gross domestic savings, External debt and Foreign direct investment in the Western Balkans, in the years following the economic crisis. In our opinion, in addition to the effects of external factors on the occurring of stagnant and negative economic growth rates after 2008, reduced inflows of foreign capital from the state enterprises privatization had strong influence, too (Madžar, 2013).

The paper consists of Introduction, Conclusion, Literature and two more sections. The first one provides an overview of selected macroeconomic indicators of the Western Balkans, which are crucial for research defined in the paper (economic growth, Gross domestic savings percentage of GDP, External debt stocks (% of GNI) and Foreign direct investment, net inflows (% of GDP)). In the second section we constructed corresponding regression model (OLS regression) for the Western Balkans as a whole, by using multiple regression analysis and above mentioned macroeconomic indicators; the variables (dependent and explanatory variables) values represented an average of all six countries surveyed.

1. Selected macroeconomic indicators of the Western Balkans from 2001 to 2013

In this section we present the comparative overview of the macroeconomic performance for six countries of the Western Balkan and the average for the period 2001-2013. We analyzed following trends:

- Economic growth rates (Table 1; Figure 1; Figure 2),
- Gross domestic savings percentage of GDP (Table 2; Figure 3; Figure 4),
- External debt stocks (% of GNI) (Table 3; Figure 5; Figure 6), and
- Foreign direct investment, net inflows (% of GDP) (Table 4; Figures 7, 8 and 9).

1.1. Economic growth

From 2001 to 2008, the Western Balkan countries had an average economic growth rate of about 4.7%. The economic growth rate in 2009 was negative in all the Western Balkan countries (except for Albania) compared to the previous year, and ranged from - 6.9% in Croatia and - 5.7% in Montenegro to - 0.9% in Macedonia. From data contained in Table 1 we can see that impact of the crisis was present during the 2010, 2011, 2012, and 2013 as well.

Table 1. GDP growth of the Western Balkan countries in the period 2001-2013

GDP growth (annual %)							
Country	Albania	Bosnia and Herzegovina	Croatia	Macedoni, FYR	Montenegro	Serbia	Average
2001	7.0	4.4	3.4	-4.5	1.1	5.0	2.7
2002	2.9	5.3	5.2	0.9	1.9	7.1	3.9
2003	5.7	4.0	5.6	2.8	2.5	4.4	4.2
2004	5.9	6.1	4.1	4.6	4.4	9.0	5.7
2005	5.5	5.0	4.2	4.4	4.2	5.5	4.8
2006	5.0	6.2	4.8	5.0	8.6	4.9	5.7
2007	5.9	6.8	5.2	6.1	10.7	5.9	6.8
2008	7.5	5.4	2.1	5.0	6.9	5.4	5.4
2009	3.4	-2.9	-7.4	-0.9	-5.7	-3.1	-2.8
2010	3.7	0.7	-1.7	2.9	2.5	0.6	1.4
2011	2.5	1.0	-0.3	2.8	3.2	1.4	1.8
2012	1.6	-1.2	-2.2	-0.4	-2.5	-1.0	-1.0
2013	1.4	2.5	-0.9	3.1	3.3	2.6	2.0
Average	4.5	3.3	1.7	2.4	3.2	3.7	3.1

Source: World Bank national accounts data, and OECD National Accounts data files.

Contrary to some earlier expectations that the crisis in general would skip this part of Europe, as it is not too export-oriented, the data show that it faces the deepest economic recession after the collapse of the Socialist Federal Republic of Yugoslavia (Figure 1 and Figure 2).

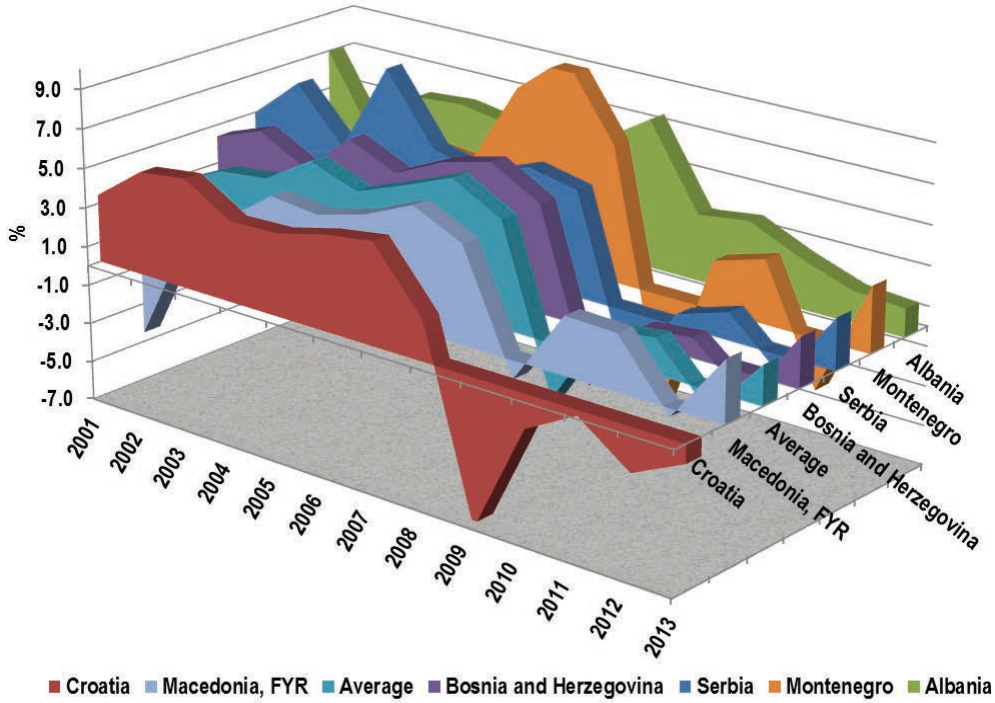


Figure 1. GDP growth rate trend (in %) by surveyed countries

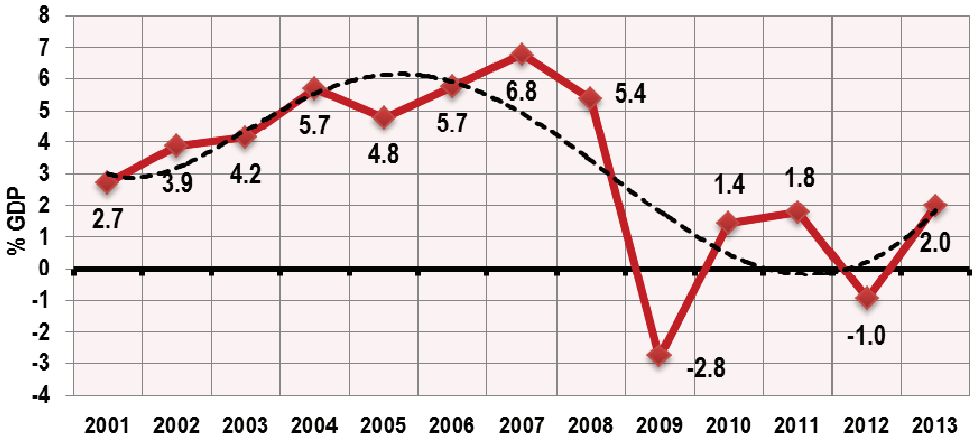


Figure 2. Average GDP growth rate trend (in %) by surveyed countries

1.2. Gross domestic savings

Saving is the decision of an individual to give up part of his or her consumption. Of course, a subject who saves does not have to be a direct investor; actually in most cases he is not. That is why mediation in modern economies is of great importance: mediation between those who have savings and those who want to invest it. There is no economic growth without high savings rate (a portion of disposable income which is saved) and without developed and efficient financial intermediation. The greater the savings, ceteris paribus, the grater the amount of financial capital engaged in an economy will be; and the more financial capital is accumulated, the higher the Gross domestic product will be. Thus, an increase of sum of accumulated and engaged financial capital leads to economic growth. Examples of many countries showed that their own savings were the key prerequisite for dynamic and long-term sustainable development processes (Acemoglu, 2009, p. 653). "The world developmental experience knows no economies that have successfully and continuously developed relying on the accumulation of others without simultaneous and plentiful generation of their own savings, not to mention the development without accumulation. Among the economists this proposition is a matter of widespread and practically undivided consensus; there is hardly an opinion to qualify this thorough setting by any means, and some kind of frontal challenging this setting is not an option, of course" (Madžar, 2014, p. 20).
On the whole, the Western Balkan countries have low savings rates, as can be seen from savings percentage of GDP during observed interval (Table 2).

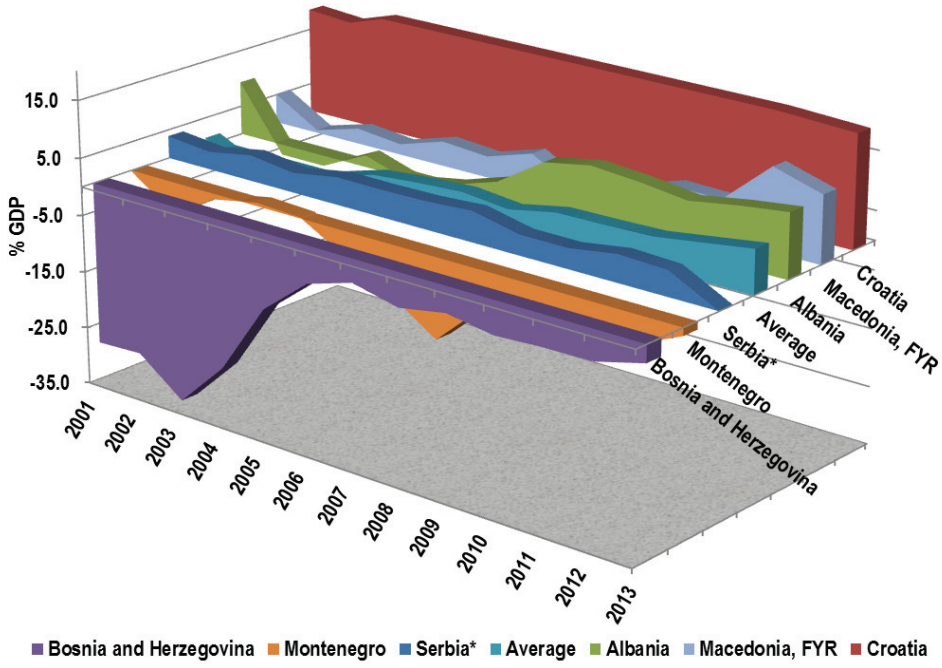
Table 2. Gross domestic savings (% of GDP) of the Western Balkan countries in the period 2001-2013

Gross domestic savings (% of GDP)							
Country	**Albania**	**Bosnia and Herzegovina**	**Croatia**	**Macedoni, FYR**	**Montenegro**	**Serbia***	**Average**
2001	9.4	-28.5	18.6	5.2	-0.1	3.9	1.4
2002	-1.8	-28.0	18.0	0.5	-5.8	3.1	-2.3
2003	-1.8	-34.0	20.5	2.7	-1.0	4.5	-1.5
2004	2.1	-25.9	21.5	1.9	0.6	3.4	0.6
2005	-0.5	-13.2	21.8	4.3	0.2	4.8	2.9
2006	1.0	-6.5	23.1	3.7	-4.3	4.7	3.6
2007	3.6	-4.1	22.4	6.2	-8.5	4.8	4.1
2008	8.9	-5.9	23.4	1.5	-13.8	5.3	3.2
2009	10.4	-4.5	21.3	4.3	-6.2	3.5	4.8
2010	9.7	-5.8	20.9	6.8	-5.6	3.5	4.9

2011	8.7	-5.3	20.2	6.6	-4.0	4.7	5.1
2012	10.0	-5.1	19.7	14.1	-5.2	4.3	6.3
2013	11.0	-3.0	19.3	11.6	-1.4	..	7.5
Average	5.4	-13.1	20.8	5.3	-4.2	4.2	3.1

Source: World Bank national accounts data, and OECD National Accounts data files

In the period 2001-2013 Gross savings rate expressed as Gross savings percentage of GDP in the Western Balkans differed by individual countries. By far the most unfavorable situation was in Bosnia and Herzegovina where the percentage ranged from - 34.0 in 2003 to - 3.0% in 2013.



*No data available for Serbia 2013

Figure 3. Gross domestic savings (% of GDP) trend by surveyed countries

It is obvious that only Croatia had a satisfactory Gross national savings rate of about 20% even in the years of crisis (2009-2013) (Figure 3).

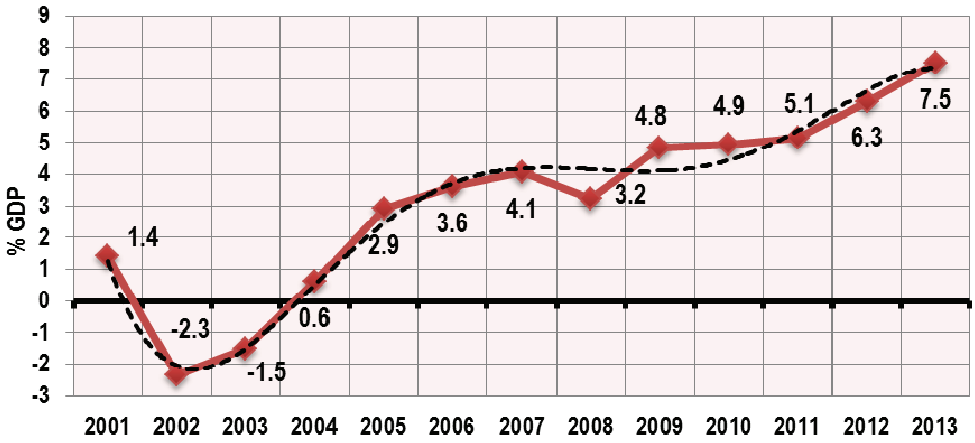


Figure 4. Average Gross domestic savings (% of GDP) trend by surveyed countries

The first and main reason for low Gross domestic savings percentage of GDP is the fact that households in the Western Balkans have very low levels of disposable income, expressed in real monetary terms (Cvetanović, Despotović, 2014). Economic studies have shown that growing disposable income leads to greater propensity to save, meaning that most of the (increased) income is saved rather than spent. Normally poor households have to use nearly all their income to meet

their basic needs; this finding gives no reason for optimism because disposable income in the Western Balkans will not increase significantly in the near future, so it will not trigger the mechanism for increasing domestic savings (Cvetanović, S. Despotović, D. Cvetanović, D., 2011).
The second reason for low savings includes relatively weak opportunities for its placement. Generally, the possibilities for savings placement are undeveloped (except time deposits with banks, albeit with interest rates far above those in the Western European countries): very few households have a life insurance; funded (voluntary) pension plans are even less common; a mutual fund is some kind of "rare bird" with low capitalization; and domestic capital market (stock market) is shallow and not attractive. So, those who want to place their savings into various yield-risk combinations (for example, high yield – high risk) simply give up saving. Should we expect major changes in financial sector development especially its non-banking part, in a country where the sector is often perceived as hostile (Cvetanović, Despotovic, 2014)?
Low savings rates per se can not provide sufficient funds to enhance economic dynamics in the Western Balkans. Therefore, a low savings rate is the limiting factor to the smooth financing of economic development in the Western Balkans. In the Western Balkan countries with the exception of Croatia, "mediation between those who have savings and those who want to invest it" means that savers will always lose. The reason is greedy government, non-existent judiciary and usurious banks (Begović, 2013).

1.3. External debt stocks (% of GNI) of the Western Balkans

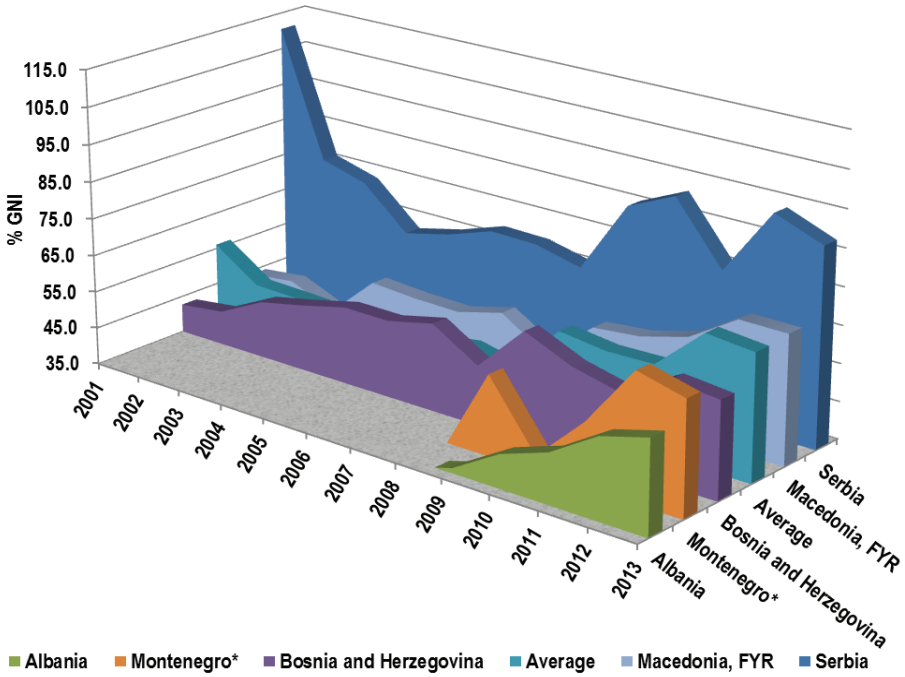
Most of the Western Balkan countries recorded high External debt in observed period. In the Western Balkans External debt stocks (% of GNI) amounted to 54.1% at the end of 2013 compared to 56.1% in 2001 (Table 3).

Table 3. External debt stocks (% of GNI) of the Western Balkan countries in the period 2001-2013.

External debt stocks (% of GNI)							
Country	**Albania**	**Bosnia and Herzegovina**	**Croatia***	**Macedon, FYR**	**Montenegro***	**Serbia**	**Average**
2001	27.3	42.7	..	43.9	..	110.5	56.1
2002	25.8	44.2	..	45.3	..	76.5	47.9
2003	26.7	50.4	..	40.2	..	73.0	47.6
2004	21.0	52.9	..	51.6	..	62.0	46.9
2005	24.6	55.9	..	50.7	..	64.9	49.0
2006	26.4	55.7	..	50.5	32.1	69.0	46.7
2007	26.3	58.6	..	53.7	35.0	68.7	48.5
2008	32.7	51.0	..	45.9	32.6	65.7	45.6
2009	36.4	63.8	..	56.8	56.6	85.5	59.8
2010	44.0	58.3	..	58.0	39.2	91.2	58.2
2011	48.4	55.2	..	61.5	51.9	75.1	58.4
2012	56.5	62.2	..	69.6	68.8	93.2	70.1
2013	60.1	60.9	..	69.5	65.5	88.1	68.8
Average	35.1	54.8	..	53.6	47.7	78.7	54.1

Source: World Bank, International Debt Statistics

With External debt stocks (% of GNI) of 88.1% in 2013, Serbia is among severely indebted countries, according to the World Bank criterion (Figure 5).



*No data available for Croatia and Montenegro (2001-2005)

Figure 5. External debt stocks (% of GNI) trend by surveyed countries

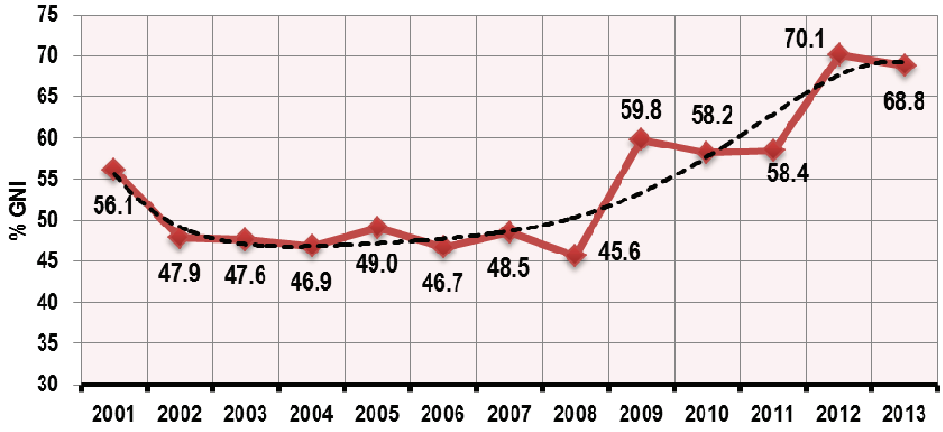


Figure 6. Average External debt stocks (% of GNI) trend by surveyed countries

External debt stocks (% of GNI) in the Western Balkans had a tendency of growth from 2002 to 2008, i.e. before crisis period as well (Figure 6). This was a consequence of decreasing inflows of foreign funds as well as a policy of fixed and relatively stable exchange rate, leading not only to external indebtedness growth but also to competitiveness deterioration.

1.4. Foreign direct investment inflows

In 2007 and 2008 in the Western Balkans, Croatia was an exception with total Foreign direct investment inflows of about USD 5 billion and USD 6.2 billion, respectively. For example, In Bosnia and Herzegovina FDI inflows amounted to USD 324 million in 2010, compared to USD 432.2 million in Croatia (economically the most developed country of the Western Balkan) in the same year. In 2008 Croatia had FDI inflows of USD 6,219 million; it was the largest sum compared to other countries of the Western Balkan during the entire time interval surveyed. Albania was the only Western Balkan country with no significant reduction in FDI inflows in the years of economic crisis (Cvetanović, S. Despotović, D. Cvetanović, D., 2011).

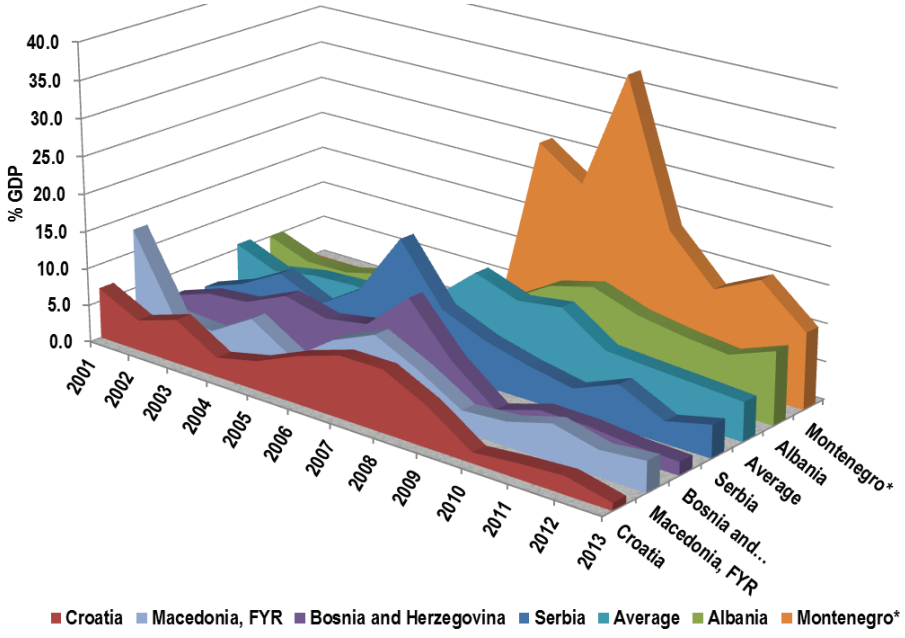
FDI flows partly financed growing current account balance deficit. The current account deficit reached its peak at the end of 2008 when it amounted to USD 24.721 billion, total for all countries

of the Western Balkan. In the following year (2009) the current transactions deficit was significantly reduced (USD 10.535 billion) (Cvetanović, Despotović, 2014).
However, FDI inflows stagnated after 2006 especially in 2009, due to the impact of economic crisis (Table 4, Figure 7, and Figure 8). Low level of FDI inflows caused deterioration of balance of payments trends, given that their level partly covers deficit of the current account in balance of payments.

Table 4. Foreign direct investment, net inflows (% of GDP) of the Western Balkan countries in the period 2001-2013

Foreign direct investment, net inflows (% of GDP)							
Country	**Albania**	**Bosnia and Herzegovina**	**Croatia***	**Macedonia, FYR**	**Montenegro***	**Serbia**	**Average**
2001	5.1	2.1	6.8	13.0	..	1.4	5.7
2002	3.0	4.0	4.1	2.8	..	3.5	3.5
2003	3.1	4.6	5.9	2.5	..	6.6	4.5
2004	4.6	7.1	2.6	5.9	..	4.1	4.8
2005	3.1	5.7	3.9	2.4	..	7.8	4.6
2006	3.6	6.7	6.4	6.5	0.0	16.2	6.6
2007	6.1	11.9	8.2	9.0	25.5	8.5	11.5
2008	9.6	5.4	8.2	6.2	21.5	6.1	9.5
2009	11.2	0.8	5.4	2.8	37.3	4.5	10.3
2010	9.1	2.6	1.4	3.2	18.4	3.4	6.4
2011	8.1	2.6	2.0	4.9	12.4	5.8	6.0
2012	7.5	2.0	2.4	3.5	15.3	2.9	5.6
2013	9.7	1.8	1.0	4.1	10.1	4.3	5.2
Average	6.4	4.4	4.5	5.1	17.6	5.8	6.5

Source: International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates



*No data available for Montenegro (2001-2005)

Figure 7. FDI, net inflows (% of GDP) dynamics by surveyed countries

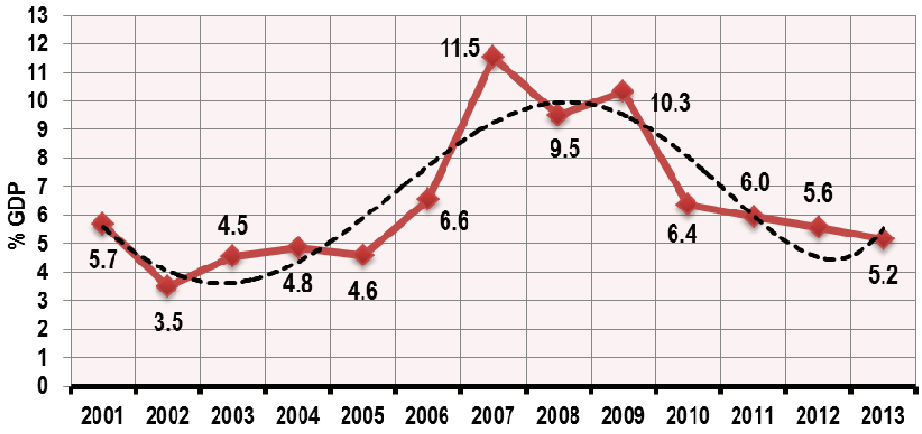
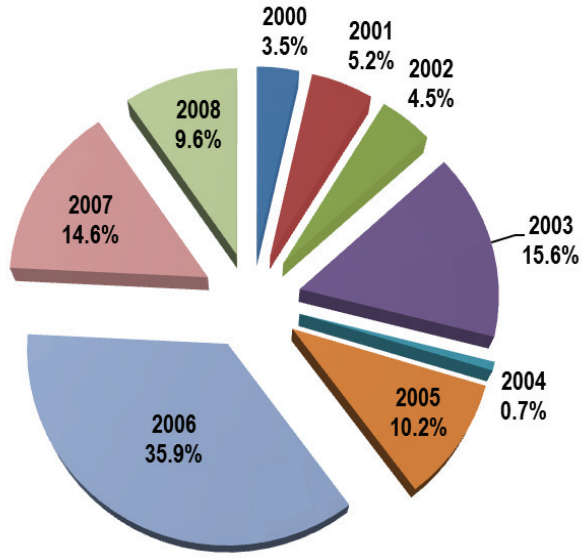


Figure 8. FDI (% of GDP) trend of the Western Balkan countries

Figure 9. shows the trend of income from privatization for every year in the period 2000-2008 for the observed group of countries as a whole.



Source: World Bank

Figure 9. The structure of income from privatization in the Western Balkan countries, 2000-2008

Since the size of FDI inflows in the context of this paper is primarily interesting as a potential source of economic development funding, the conclusion is that external sources of financing economic development in the countries of the Western Balkan had extremely procyclical character. The procyclical character of FDI in the Western Balkans can be seen from diagram presentation of four macroeconomic indicators (Figure 10).

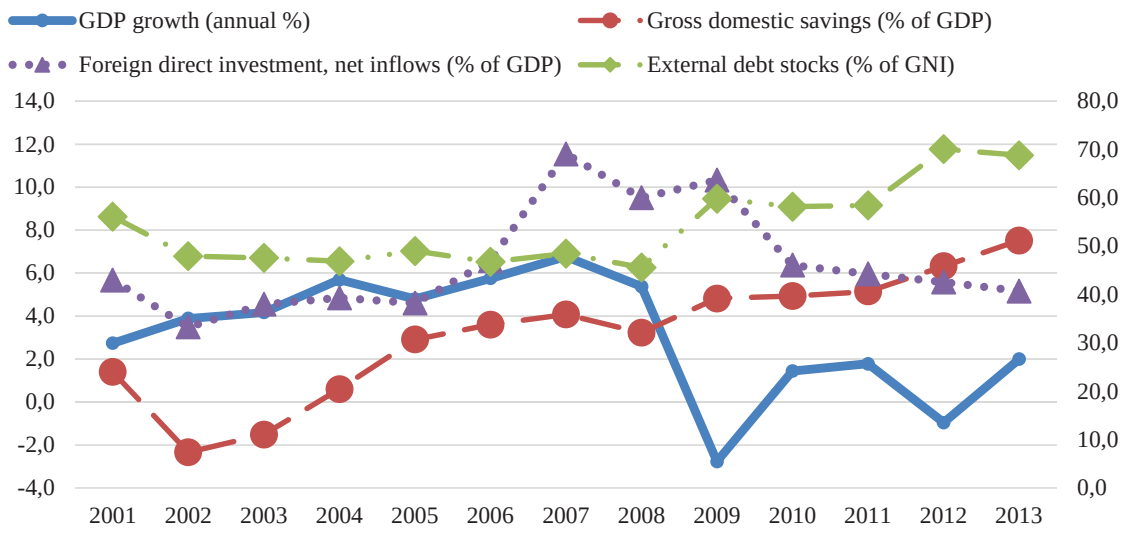


Figure 10. Visualization of economic growth, domestic savings, FDI and External debt stocks trends of the Western Balkans, 2001-2013

It is noticeable that FDI grew in the years of prosperity, and they dropped dramatically in the years of global economic crisis. In short, the crisis adversely affected the FDI inflows in the Western Balkans. Although there is possibility that this trend to a certain extent was influenced by circumstances related to the practically completed privatization of state enterprises. An additional problem of the observed small open economies of the Western Balkan is fact that they do not have necessary domestic savings and the funds obtained from privatization mainly went to consumption. However this statement does not mean ignoring the importance of FDI inflows in financing economic development. On the contrary, it only emphasizes the importance of domestic savings as a long-term source of financing economic development.

One of the drawbacks of the package of transition of the former socialist economies is their over-reliance on foreign direct investment. The experience of small open economies of the Western Balkan, as countries in transition, demonstrated that foreign investments go to the markets that are potentially stable and the most advanced in the transition process. In addition, an important issue is economic future of countries that tend to rely solely on foreign direct investment in order to promote their economic development due to a lack of capital, management, technology, access to foreign markets (Mladenović, Cvetanović, 2011).

Dominant drivers of FDI are large multinational companies which are also a significant factor in the process of economic development, especially in the early stages of development (Pelević, 2007). They can not be the only driver in creating advantage of the country in modern industries. Development strategy based predominantly on foreign activities of major international companies can condemn the country to remain factor-driven economy, while the question of developing its own industry remains open. The multinationals should be just one component of national strategy on economic development, and at a certain stage of development process it is necessary to focus on domestic firms. Foreign investments directed into a country, have never been a solution to problems of competitiveness of the economy.

2. The analysis results

In order to evaluate the impact of domestic savings, FDI and external debt on the economic growth of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro and Croatia) in the 2001-2013 period, we constructed corresponding regression model (OLS regression) where the region of Western Balkan is viewed as a whole and the variables (dependent and explanatory variables) values represent an average of all six countries surveyed.

The economic growth, as a dependent variable, is monitored by using GDP growth (annual

%) expressed in constant prices – 2005 USD, thereby eliminating the inflation effect.

In order to evaluate the influence of domestic savings on economic growth, Gross domestic savings value (% of GDP) is used as an independent variable, and is calculated as GDP less final consumption expenditure (total consumption). Evaluation of FDI impact on economic growth is monitored through Foreign direct investment, net inflows (% of GDP), as an indicator of net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors. Finally, the model also covers an impact analysis of external debt level on economic development, by including External debt stocks (% of GNI) into a multiple regression model, thereby measuring the impact of debt owed to nonresidents repayable in currency, goods, or services. It's an important indicator because it represents the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit and short-term debt.

In the model constructing, time lag of Gross domestic savings and FDI impact on GDP trend was taken into account, so these two variables are one year lagged. A multiple regression model was obtained based on the above assumptions, and the results of the model are presented in the table below.

Table 5. OLS regression results

Model: OLS, using observations 2002-2013 (T = 12) Dependent variable: GDPgrowth						
		Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const		25.652	4.17358	6.1463	0.00028	***
Gross_domestic_savings_1		0.652641	0.280319	2.3282	0.04830	**
External_debt_stocks		−0.37949	0.0739181	-5.1339	0.00089	***
Foreign_direct_investment_1		−0.580084	0.223453	-2.5960	0.03181	**
Mean dependent var	3.159239	S.D. dependent var			2.916221	
Sum squared resid	17.49293	S.E. of regression			1.478721	
R-squared	0.813005	Adjusted R-squared			0.742882	
F(3, 8)	11.59399	P-value(F)			0.002774	

Based on the OSL regression results presented in the table, we obtained the model of the following form:

GDP growth = 25.652 + 0.653 Gross domestic savings_1 − 0.379 External debt stocks − 0.580 Foreign direct investment_1

The results indicate that economic growth of the Western Balkans in 2001-2013, was significantly influenced by domestic savings, External debt stocks and Foreign direct investment ($p=0.03 < 0.05$), and that variations of these three variables account for 74% of the total variation (Adjusted R-squared = 0.743) in the Western Balkans economic growth trend, in the 2001-2013 period.

The value of Gross domestic savings has the greatest impact on economic growth. The effect of this indicator is statistically significant. Positive coefficient of 0.65 indicates that if Gross domestic savings percentage of GDP increases by 1% (other variables values unchanged), it will increase economic growth (measured by annual real GDP growth rate) by 6.5%.

Unlike domestic savings, the impact of External debt (highly statistically significant) and Foreign direct investment (statistically significant) on economic growth is negative. External debt measured by External debt stocks (% of GNI) affects the economic growth as follows: 1% increase in External debt (% of GNI) leads to economic growth slowdown of 3.8%. The situation is similar regarding the impact of Foreign direct investment; 1% increase in Foreign direct investment, net inflows (% of GDP) leads to economic growth slowdown of 5.8%.

Conclusion

Based on the results obtained from economic growth model analyzed above, it can be concluded that domestic savings is the most significant factor leading to economic progress of the Western Balkans; External debt is factor that has a negative impact on economic growth, so countries should seek to reduce it. Also, research shows that the inflow of Foreign direct investment is no guarantee of economic development. This can be explained by inadequate investment structure (investing primarily in areas which create no value added and produce no internationally tradable goods), investment motives (speculative activities and short-term profit) and an insufficient amount (there is no critical mass of investments). These are the reasons why inflow of Foreign direct investment can not be the driving force of economic development. The main message is that the Western Balkan countries have to base their development mainly on their own resources, while foreign capital (equity or borrowed) can and should play just a role of an additional source of funding and development.

Literature

1. Acemoglu, D. (2009) *Introduction to modern economic growth*. Princeton University Press.
2. Begović, B. (2011) *Institucionalni aspekti privrednog rasta,* Beograd: Službeni glasnik i Centar za liberalno-demokratske studije.
3. Cvetanović, S. Despotović, D. Cvetanović, D. (2011) Domestic savings and foreign direct investmment in the new model of economic growth of the Western Balkan countries, *Development Potentials of Foreign Direct Investment: international experiences*, Belgrade: Institut of international politics and economics, pp. 255 – 266.
4. Cvetanović, S. Despotović, D. (2014) Izvori finansiranja razvoja zemalja Zapadnog Balkana u periodu 2001-2012. godine, *Ekonomika*, 63(4) pp. 59-66.
5. Cvetanović, S. Mladenović, I. (2013) *Ekonomija kapitala i finansiranje razvoja*, Niš: S. Cvetanović.
6. Dragutinović, D. Filipović, M. Cvetanović, S. (2014) *Teorija rasta i razvoja*, Beograd, Ekonomski fakultet.
7. Madžar, LJ. (2013) Alternative i rizici fiskalne konsolidacije u Srbiji, *Škola biznisa*, broj 3-4, str.12-55.
8. Mladenović, I. Cvetanović, S. (2011) *Finansiranje rasta i razvoja*, Niš: Ekonomski fakultet.
9. Pelević, B. (2007) Negativna štednja, depresirane investicije i visoki platnobilansni deficiti - elementarna faktografija za (ne)sporne veze, in: Cerović, B. [ed.] Konferencija *Izazovi ekonomske politike Srbije u 2007*, Beograd: Ekonomski fakultet, pp. 11-18.
10. http://data.worldbank.org/indicator/ **(accessed 13.06.2015.)**

DEINDUSTRIALIZATION AND ECONOMIC GROWTH IN SELECTED TRANSITION COUNTRIES

Dušan Cvetanović[51]

Igor Mladenović[52]

Dragan Petrović[53]

Abstract

Deindustrialization, as a process of reducing the share of industrial production in total national production, started too early in transition economies. The transition from centrally planned to market economy in transition economies has left significant consequences on their industrial sector. One of these consequences is the process ofdeindustrialization. That deindustrialization is reality is proven by the fact that out of 27 analyzed transition economies in the period from 1996 to 2012, as many as 17 were exposed to this process. Acknowledging this fact, this paper will try to quantify the relationship between the process of deindustrialization and economic growth in the 27 selected transition economies in the period from 1996 to 2012. The starting hypothesis of the research is that the transition economies that were exposed to the process of deindustrialization had lower economic growth rates, compared to those that were not exposed to that process. In order to prove the starting hypothesis, we will first give a review of theoretical approaches that emphasize the importance of industrial production for economic growth, as well as theoretical approaches that point to deleterious effects of the process of deindustrialization. After that, we define a sample of 27 transitional economies in which, in the period from 1996 to 2012, we follow the economic growth and industrial productionindicators. As a measure of economic growth rate, we use the real growth rate of GDP per capita, while the level of industrial production in the observed economies will be shown by the indicator of the share of industrial production in GDP. By applying the regression model, we will test the hypothesis, based on which the transition economies that were exposed to the process of deindustrialization had a lower economic growth rate in the period from 1996 to 2012. More specifically, based on a selected sample, we will test the hypothesis, stating that the decrease in the share of industrial production by 1% causes a lower economic growth rate by 0.04 percentage points. In addition, this study will test the alternative hypothesis, stating that the increasingshare of industrial production in GDP results in higher economic growthrates. A good example of this practice is found in the case of Armenia, where, in the period from 1996 to 2012, the growth of industrial production in GDP by 1% caused the growth of GDP per capita by 0.23 percentage points. Taking into account this fact, the paper will analyze the factors influencing the process of deindustrialization in the surveyed countries, all with the aim of providing economic policy makers with the guidelines for defining measures to stop the process of deindustrialization in the transition economies.

Key words: *deindustrialization, economic growth, transition countries, economic policy.*

[51]University of Niš, Faculty of Economics Trg kralja Aleksandra 11 Niš, dusan.cvetanovic@ymail.com
[52]University of Niš, Faculty of Economics Trg kralja Aleksandra 11 Niš, igor.mladenovic@eknfak.ni.ac.rs
[53]University of Niš, Faculty of Economics Trg kralja Aleksandra 11 Niš, dragan.petrovic@eknfak.ni.ac.rs

Introduction

Changes in the transition countries had a particular impact on the industry, as a leading area of economic activity in these countries in the years following the Second World War. They were visible and identifiable in the dynamics of its growth, share in the economy structure, employment, foreign trade, and others. Generally speaking, in the initial years of transition, extreme negative trends in the development of industry were recorded. Such trends had a decisive impact on the overall economic situation in these countries, mostly causing a large number of negative economic and social consequences.

Changes in the economic system and economic policy created business-systemic conditions, corresponding to market economies. They meant different conditions of industrial development and the change of its place in the overall economic development. Reducing the role of the state in the field of industrial production, privatization of industrial enterprises, foreign trade liberalization, and the arrival of transnational companies were part of the industrial development policy in the new conditions. This fundamentally changed the position of industry in the economic development in the largest number of transition countries. Finding itself in this "new environment and new position", the industry was to, within a relatively short period of time, accept the rules of the game, which brought with itself the globalization of the world economy.

Starting from the indisputable fact that the transition marked decline in industrial production in the early years of this process, we tried to come up with a competent answer to the question of how things stand with the phenomenon of deindustrialization in the transition economies in the new century, i.e. its impact on economic growth, as the key macroeconomic performance of these countries. We studied whether the process of deindustrialization of the selected 28 countries had a negative impact on economic growth and whether it is possible to quantify the link between economic growth and the process of deindustrialization of these economies in the years of the late twentieth and early twenty-first century. With the aim of arriving at an answer to this research question, we observed a set of 28 transition countries, by focusing on the period from 1996 to 2012. We analyzed the process of deindustrialization by using the parameter Industry value added expressed as a percentage of GDP, while economic growth was analyzed through changes in GDP per capita in the reporting period. Therefore, economic growth per capita was observed in respect of the period of 17 years, while the process of deindustrialization was analyzed through the parameter Industry value added expressed as a percentage of GDP.

1. The sharp decline in industrial production at the beginning of the transitional period

At the beginning of the transition period, the industry of the transition countries was exposed to a kind of shock, reflected in the abrupt changes of the conditions under which it operated and developed before. First, in a very short period of time, the industry lost domestic market, as its mainstay. This loss resulted from lower demand for industrial products, due to the decline in economic activity and, consequently, real reduction of all forms of consumption. Then, the rapid liberalization of trade with the world, based on the recommendations of international institutions ("Washington consensus"), brought competition to the domestic industry of these countries, primarily reflected in transnational companies, which were, in terms of technological development and other competence, in incomparably more superior position in relation to the domestic industrial companies. "In fact, all these countries were too industrialized, so that it does not surprise that the industry was most affected by the recession and suffered the most due to the disintegration of traditional markets" (Bajec, Joksimović, 2004, p. 323).

Table 1. The share of industry in total production in the selected transition countries in the period 1991-1994 (% of GDP at current prices)

	1991	1992	1993	1994
Albania	31,6	17,0	13,8	12,6
Bulgaria	35,9	38,4	34,4	35,5
Czech Republic	47,4	42,9	37,0	34,8
Hungary	29,0	27,3	26,6	25,5
Poland	35,8	35,5	35,7	36,2
Romania	39,5	37,3	33,4	33,5
Slovakia	52,7	38,0	36,9	30,7
Slovenia	40,5	36,6	34,0	33,8
Russian Federation	39,3	35,0	39,2	29,9

Source: Economic Survey of Europe in 1995-96.

The decrease in industrial production in countries in transition was a kind of process of their deindustrialization. The industry ceased to be "the leading economic activity" in the structure of their economies. Instead of creating new jobs, it massively increased the contingent of unemployed labor. Instead of growth in exports of their products, it was unable to meet the basic needs of the domestic market, dominated by imported industrial products.

The transition process and its results in the former socialist countries cannot be considered outside the framework of the process of globalization. In respect of this group, the question arises: how to accelerate economic growth and to make the economy competitive in global terms? It is an undeniable fact that the "global rules of the game" must be accepted. Nevertheless, with these rules in mind, it is necessary to design and implement development policy, which will ensure economic prosperity and long-term economic and social stability. The question of when the transition process in a country ends is theoretically and practically problematic. In the majority of cases, there are two conditions that must be cumulatively met: to achieve a level of production that the country had before the start of the transition process, and second, to create market institutions, whose work will confirm practical effectiveness of market economic system, and thus prevent the return to the old system. In respect of the European countries, another condition could be joining the European Union. From an economic standpoint, it does not have to be that way (the case of accession of Romania and Bulgaria).

It is believed that the industry is still an important factor of economic growth, although it ceases to be an activity that employs the most workers, given that the new technology replaces human labor. Therefore, especially after the 2008 economic crisis, more and more countries have turned to the active involvement of the state, in order to stimulate industrial growth. At the same time, many countries implement industrial policy with the objective to diversify and improve domestic production. It seems that Reiner is right when he says: "Either the state is sufficiently strong to make the industrial sector survive and stay in the club of rich countries, or it deindustrializes and finishes in a group that 'gathers at the bottom'". This remains true even at the cost of the initially less effective sector, because "people in the country with an inefficient industry will live much better than the people in a country without industry" (Reiner, 2006).

2. The policy of growth based on the Washington Consensus recommendations, and its effect on the manifestation of deindustrialization in transition countries

After the fall of the Berlin Wall and the collapse of the Soviet Union, former socialist countries adopted the Washington Consensus recommendations as the starting point for their reforms towards a market economy model. The authors of the Washington Consensus are the International Monetary Fund, the World Bank, and the US administration (Ministry of Finance and

USAID). Its fundamental principles are given in Table 2. The term was launched in 1989 by an economist Williamson (Wiliamson 1990).

Table 2: Principles of the Washington Consensus

Original Washington Consensus	
Fiscal discipline	Trade liberalization
Reorientation of public expenditures	Opennes to DFI
Tax reform	Privatization
Financial liberalization	Deregulation
Unified and competitive exchange rates	Secure Property Rights

Source: Rodrik, D. (2006) Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform, Journal of Economic Literature Vol. XLIV December, p. 978.

The Washington Consensus recommendations regarding economic growth policies are of universal character for all countries, irrespective of their level of economic development. Taken as a whole, they completely abstract the possible effects of the subsequent development, i.e. the fact that the countries at the start of the process of industrialization, after a large number of countries have already developed the industry, should have different economic growth policies and different institutional arrangements. What is more, there are special advantages arising from the use of modern technology, which was developed and applied in a slower way in countries which developed their industry earlier.

The formulated platform of global development should have provided, as expected by its creators, a situation in which free market would lead to higher growth rates and poverty reduction. Any denial of market liberalization is treated as a state intervention, which can only lead to the protection of the interests of certain groups and the slowdown of economic growth (Adamović, 2011). In contrast, successfully implemented stabilization, accompanied by privatization and liberalization programs, *per se* leads to satisfactory economic growth rates.

Critics of the growth policies based on the Washington Consensus recommendations argue that they rarely lead to growth. In fact, according to them, they often stifle long-term growth. There is much evidence to support this thesis. It is clear that the Washington Consensus recommendations, including price stabilization, were not enough to stimulate economic growth in a number of countries that applied them. The restrictive monetary policies, which were associated with stabilization, had a destimulating effect on investment and economic growth. Responding to the crisis by raising interest rates discourages investment. This made companies rely more on self-financing, which resulted in further reduction in economic activity (Stiglitz et al., 2006).

Macroeconomic theorists conventionally believe that stabilization is assumption of greater economic efficiency and economic growth. The basic dilemma of most stabilization programs is how to reconcile the restrictive policies of the conventional stabilization, which are necessary for beating inflation and elimination of the trade deficit, with stimulating policies that can help specific sectors and companies take on the task of economic growth. There is no unequivocal answer to this question, either in theory dealing with stabilization, or in experience of developing countries. In truth, policies focusing on the realization of the above-mentioned tasks, inherent within most conventional stabilization programs, are, as a rule, rather vague. Moreover, it can be concluded that there are no adequate theoretical or empirical grounds for reaching firm and a priori conclusion about the efficiency of these policies in achieving the transition from stabilization to growth.

Critics of conventional stabilization programs attack the part of anti-inflation program relating to the restriction of domestic loans in particular. The research related to some developing countries and most transition economies in the nineties confirms that the countries with the most pronounced

reduction in bank loans had the highest rate of decline in aggregate production. The problem of the possible consequences of restrictions on domestic loans, as one of the key points of conventional stabilization programs, has its theoretical explanation. In short, it starts from the premise that the total level of production is influenced by both supply-side and demand-side factors. An illustration of such influence is an example of domestic loan rationing, whether by reduction in the amount of total loans or by increasing interest rates. Such a restriction would have an understandably adverse effect on the overall production, because the aggregate demand, due to the reduction of public spending, would inevitably show a tendency of decline, or given the fact that in the case of rising interest rates, the capital market would see the manifestation of the well-known effect of crowding out, namely of private investment (Cvetanović, Mladenović, 2013, 181).

Even if they are properly designed, such conventional stabilization programs bring with them a lot of negative effects. Limitation of the budget deficit can beat real consumption, and hence aggregate demand. This would lead to recession, with a sharp decline in production and an increase in unemployment.

It is undisputed that well-designed stabilization and liberalization programs can have severe consequences for economic activity, especially in the short term. The elimination of the budget deficit may limit the real consumption, and thus reduce aggregate demand. Conventional stabilization and liberalization measures can cause recession, drastic reduction in production, and rising unemployment. Liberalization policy can show results only in the long term. The capital that "fled" some countries in the past can come back to the country of origin only after restoring the trust of the owners of capital. Even in the long term, conventional measures do not guarantee success. This is so for the simple reason that they are inevitably accompanied by a large number of negative consequences.

Activities that countries in transition undertook when confronted with macroeconomic instability (high inflation and budget deficit) and growing obligations in respect of foreign debt were mostly reflected in renegotiating loans with private international banks. The basic idea was to extend the repayment period or to obtain additional funds under more favorable conditions. However, as a rule, these debtors first had to adopt stabilization programs recommended by the IMF, before the consortium of international private banks would agree to refinance or restructure their debt.

The essence of the stabilization and liberalization programs lies in the elimination of inflation, the reduction of excessive spending, especially public, greater openness to the world economy, and less state intervention on the market. The ultimate goal is to improve the country's competitiveness through greater trade openness and intensified investment activities of companies. It should, however, be noted that competition policy is a required, but not a sufficient condition of rising macroeconomic efficiency, as key attributes of economic systems of individual countries can allow that economic activity takes place in a certain direction but cannot directly cause it. The reliance on the price mechanism can also be misleading, since such changes require a lot of time. However, changes can be sudden. This forms an illusion that these problems have short-term solutions.

The stabilization strategy, promoted by the IMF in the nineteen-nineties, and the World Bank's structural adjustment policy emphasize the existence of free import of technology. There is no doubt this is important. However, industrializing country must be able to follow transition from the import, through absorption and adaptation, to diffusion of technological changes in some sector. Importing technology must, after a certain period, be replaced by domestic technological solutions. Free technology import regimes are not sufficient, because market discipline cannot prevent recurrence of similar technology import from time to time. This problem can be expressed in the sectors in which technological changes are pronounced and the obsolescence of products intensive. Orthodox theorists forget that innovation management at the macro level is one of the most important prerequisites of economic growth of all countries in the period of intensive technological changes (Cvetanović, Mladenović, 2013a).

Liberalization means reducing state interference in economic activity to a minimum, flexibility of interest rates, and price control. Price control, foreign economic relations policy, and

other economic policy measures must necessarily focus on strengthening the private sector. Moreover, upon selling state-owned enterprises, it is necessary to increase the share of private ownership in the overall structure of the economy. In short, liberalization aims to increase economic activity. It is clear, however, that this is also by far the most difficult to achieve in the short term. Companies that have long been protected by import tariffs and other protective measures expressed unrealistic production costs, and liberalization policy can call their business into question. As a result of liberalization, a lot of companies will have to close.

Structural adjustment, however, is not at all an easy process, as believed by some theorists. Highlighting the importance of international trade liberalization in order to compel domestic companies to operate more efficiently is wrong when designing development policies. In real life, the reduction of protection may increase economic efficiency, but it can also close a large number of companies. Due to the existence of hysteresis effect, it can alter the industrial structure in a completely unacceptable way (Cvetanović 2005, 385).

Similar phenomena may appear as a result of hysteresis, for example, when capital inflow, in the form of portfolio investment, becomes the cause of payment deficit. This is partly caused by trade liberalization, which can lead to the growth of the trade deficit in the short term. The liberalization of foreign trade is another important aspect of the World Bank's restructuring policy. In this case, the economy requires high interest rates and strict exchange rate regime in order to meet the demands of foreign creditors and maintain their trust. This, in turn, erodes the competitiveness of exports to the world market and the promotion of foreign products on the domestic market. Trade deficits are getting bigger. However, governments often keep exchange rate under strict control, in order to ensure the confidence of portfolio investors. Persistent overvaluation of the domestic currency means that domestic companies are exposed to strong competition of foreign goods and services. Over time, the increased payment deficit requires an increased inflow of portfolio investment which, beyond a certain point, undermines trust and creates negative expectations. In the extreme case, the depreciation of the domestic currency is imminent. However, in the period in which the adjustment of the exchange rate is realized, hysteresis can be rather pronounced. This means that the reentry of companies on the market is more difficult, as local entrepreneurs need to build new capacities, in order to take advantage of opportunities arising from changes in relative prices.

The change in exchange rate policy can have an impact on the behavior of the companies in the long run. Trade liberalization, deregulation of the economy, and financial liberalization are bringing far-reaching changes in the rules of the game. These structural reforms are accompanied, as a rule, by pronounced relative price adjustments. This, in turn, increases uncertainty and risk. Uncertainty is growing for two reasons. First, if prices are variable, companies find it difficult to make predictions about the price behavior, based on which they could make decisions on investments. Second, if credibility is not high enough, companies can get the impression that the reforms are not supported or reversible, and so decide to wait until the rules are defined. Decision to wait until further notice can be very negative from the standpoint of the overall investment activities. The decline in investment activity understandably has a negative impact on economic growth.

Obsession of macroeconomic policy with stabilization issues within structural reforms in the short and medium term leads to a kind of confusion between strategy and tactics in managing economic growth in most developing countries and countries in transition. In short, the consequence of such confusion is the neglect of long-term development objectives in these countries. There are at least two reasons for this fact: first, long-term objectives cannot be defined by development indicators used by multilateral financial institutions, and second, such objectives do not bring tangible profits to politicians who want to renew their mandate in the next elections. In the long term, the development of human resources and improving the technological capabilities of a country are examples of such objectives. Their complete disregard in the IMF stabilization programs and the World Bank's structural adjustment policies have often led to significant difficulties in intensifying long-term economic growth rates.

Such disregard has serious consequences, because the development of human resources is at the same time a means and an end. It is a means of raising the level of productivity and mobility of labor. At the same time, it is an end if it helps to improve the quality of life of individuals and society as a whole. It is a priority for every country in the lower stages of economic development. It should be kept in mind that the returns to the society can come after a very long time, but that they are always high. Until the nineteen-sixties, human capital, symbolized in education, research and development activities, and the achieved level of health, was not the subject of any serious economic research, let alone its treatment as a prime development factor. One of the main causes of lack of understanding of the correlation between investment in human capital development and the dynamics of economic growth is, among other things, explained by the lack of methodology for analyzing extremely complex, difficult-to-measure, and distant economic effects of raising the educational level and health status of the population. Although the methodological issues related to quantifying the effects of certain forms of investment are open with respect to all types of investment, the problems are particularly pronounced when one takes into account investment in human capital. This remains true despite the fact that the economic justification of investment in human capital is, in principle, determined in the same manner as the justification of any other investment: by net present value of the expected return on investment, and by comparing that value with net present value of return from the alternative use of funds.

Although some of the above measures can be seen as acceptable from the point of beating inflation, the facts are unambiguous and point to the conclusion that their impact on economic growth is extremely unfavorable. Theorists dealing with economic development have investigated the long-term consequences of these short-term actions. They, as a rule, prove that hysteresis can have a very adverse impact on the quality of macroeconomic performance as a whole. Preoccupation with stabilization in the short term and adjustment in the medium term leads to neglect of long-term development goals. However, economic growth can be difficult if the achievement of certain typical long-term goals is ignored. Nevertheless, there is no economic growth without the realization of long-term goals, such as development of human resources and improvement of technological capabilities in production.

Stabilization programs emphasize the existence of free import of technology. There is no doubt this is important. However, an industrializing country must be able to track changes from the import of technology, through absorption and adaptation, to diffusion and innovation at least in some of the economic sectors. In short, the adoption of technology through imports, must, after a certain period of time, be replaced by domestic technological solutions. Open technology import regimes are not always desirable, because market discipline can prevent the recurrence of similar technology import by domestic companies. The problem is particularly manifested in the sectors in which technological changes are dynamic.

Stabilization programs completely ignore the state’s role in supporting technological development. In any case, well-designed economic development strategies imply the existence of long-term strategies of technological development. In the long run, improving the quality of education and the improvement of technological and managerial capabilities at the micro level, as well as technological development at the macro level, are key determinants of international competitiveness. Indeed, there is no country in the world that has achieved significant results in the process of intensification of economic growth rates without realizing these goals. What is ignored is the fact that the attitude of economic development theorists in this regard is unequivocal, and that the role of the state in each of these undertakings is a critical factor.

Analysis of the world industrial development testifies that, in the period after the Second World War, East Asian countries recorded the fastest growth. This applies to Japan, South Korea, Taiwan, and China, none of which created its industrial policy in line with the Washington Consensus recommendations. In order to accelerate the growth of the industrial sector, they established special agencies and institutions, such as banks for stimulating exports and imports, special economic zones, banks for stimulating development, technological institutes, special ministries, such as MITI and the Ministry of Finance in Japan, the Bureau for Industrial

Development and Technological Research in Taiwan, the National Development and Reform Commission and Export-Import Bank of China, etc. These countries put special emphasis on filling these institutions with competent human resources.

3. Results of the analysis

In order to prove the established hypothesis, based on which the process of deindustrialization in countries in transition has a negative impact on economic growth in the long term, we selected a set of 28 countries in transition, and focused on the period from 1996 to 2012. We observed the process of deindustrialization with reference to the parameter Industry value added as a percentage of GDP, and analyzed economic growth through changes in GDP per capita in the reporting period. Data was taken over from the World Bank database, as shown in Table 3.

Table 3. GDP per capita and Industry value added (% of GDP) from 1996 until 2012 in selected transition countries

Country	GDP per capita in 1996. (constant 2005 US$)	GDP per capita in 2012 (constant 2005 US$)	Industry value added 1996 (% of GDP)	Industry value added 2012 (% of GDP)
Azerbaijan	652,61	3.114,56	39,08	63,05
Armenia	715,81	2.237,23	32,59	33,24
Belarus	1.567,67	4.870,98	38,59	42,95
Kazakhstan	1.990,26	5.192,57	26,93	39,50
Turkmenistan	1.270,21	3.269,67	68,82	48,44
Georgia	816,84	2.088,96	23,73	24,50
Latvia	3.469,91	8.425,67	28,57	21,81
Lithuania	4.212,52	10.108,78	29,96	27,81
Mongolia	710,86	1.631,31	25,19	31,90
Albania	1.700,84	3.857,25	20,17	14,43
Vietnam	440,99	986,01	29,73	38,63
Tajikistan	205,61	458,62	31,56	22,51
Estonia	5.368,11	11.821,78	30,72	28,96
Uzbekistan	398,53	845,81	30,48	32,34
Russian Federation	3.407,36	6.848,74	38,71	36,85
Poland	5.557,78	10.603,38	35,99	32,85
Slovak Republic	8.187,51	15.171,68	37,67	35,29
Ukraine	1.159,47	2.094,12	38,20	29,25
Bulgaria	2.652,56	4.730,44	21,35	30,09
Serbia	2.453,30	4.174,73	33,11	30,29
Moldova	617,74	1.042,99	30,71	16,71
Kyrgyz Republic	359,82	576,93	18,29	25,55
Romania	3.660,06	5.839,86	42,46	42,34
Hungary	7.616,43	11.231,92	29,85	30,43
Slovenia	12.867,49	18.852,5	35,08	31,69

		7		
Croatia	7.264,18	10.626,13	30,83	27,07
Czech Republic	10.381,92	14.755,92	40,53	37,03
Macedonia, FYR	2.450,83	3.472,31	29,57	25,37

Source: www.worldbank.org

In this study, we used the OLS regression to model the relationship between independent and dependent variables. As a dependent variable, we used the data on chain index of GDP per capita in the period from 1996 to 2012. In order to eliminate the effect of inflation in repsect of the dependent variable, we used constant prices in 2005 for all countries under observation. The value of chain index of the dependent variablewas calculated by using the following formula:

$$\frac{GDPpc_{2012} - GDPpc_{1996}}{GDPpc_{1996}} + 100$$

As an independent variable in this study, we used the variable by which we measured the process of deindustrialization ΔI. It is a data on absolute changes of industry value added as a percentage of GDP in 1996 and 2012. The value of this indicator is calculated by the following formula:

$$\Delta I = (\text{Industry value added in \%GDP}_{2012} - \text{Industry value added in \%GDP}_{1996}) + 100$$

This indicator points to the fact that all economies that had more intense growth of industrial production had a value of this indicator greater than 100, while economies exposed to the process of deindustrialization in the reporting period hada value of this indicator of less than 100. The economies in which there were no changes in the industry value added as % of GDP in the reporting period had the value of this indicator 100. In this way, the possibility that one of the variables in the OLS regression model has a negative value was avoided. The value of the dependent and independent variables for the observed economies is shown in Table 4.

Table 4. The value of the dependent and independent variable for the observed economies

Country	Chain index of GDP pc growth for the period 1996-2012	ΔI – Deindustrialization (1996-2012)
Azerbaijan	103,77	123,97
Armenia	102,13	100,65
Belarus	102,11	104,37
Kazakhstan	101,61	112,57
Turkmenistan	101,57	79,62
Georgia	101,56	100,77
Latvia	101,43	93,24
Lithuania	101,40	97,86
Mongolia	101,29	106,71
Albania	101,27	94,26
Vietnam	101,24	108,90

Tajikistan	101,23	90,95
Estonia	101,20	98,23
Uzbekistan	101,12	101,86
Russian Federation	101,01	98,14
Poland	100,91	96,86
Slovak Republic	100,85	97,62
Ukraine	100,81	91,05
Bulgaria	100,78	108,75
Serbia	100,70	97,18
Moldova	100,69	86,00
Kyrgyz Republic	100,60	107,26
Romania	100,60	99,88
Hungary	100,47	100,58
Slovenia	100,47	96,61
Croatia	100,46	96,24
Czech Republic	100,42	96,49
Macedonia, FYR	100,42	95,79

Source: Authors' calculation

OLS regression results are shown in Table 5.

Table 5. The results of the OLS regression

Source	SS	df	MS
Model	3.16752528	1	3.16752528
Residual	10.2309772	26	.393499125
Total	13.3985025	27	.496240834

Number of ob = 28
F(1, 26) = 8.05
Prob > F = 0.0087
R-squared = 0.2364
Adj R-squared = 0.2070
Root MSE = .6273

ChainindexofGDPpcg~o	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
IDeindustrialization	.0403925	.0142368	2.84	0.009	.0111283	.0696566
_cons	97.13317	1.419695	68.42	0.000	94.21494	100.0514

Based on data in Table 5, we can conclude that in the case of the observed transition economies in the period from 1996 to 2012, the increased industry value added expressed in% of GDP had a positive impact on economic growth. With the clause *ceteris paribus*, this would mean that the unit growth of industry value added, measured as% of GDP, increased the GDP growth rate by 0.04 percentage points in the reporting period. We see that P value is less than 0.05, which means that all the parameters in the model are statistically significant. This dependence can be modeled as follows:

$$\text{Chain index of GDP pc}_{1996-2012} = 0{,}04\Delta\text{I} + 97{,}13$$

Graphic presentation of the presented model is shown in Figure 1.

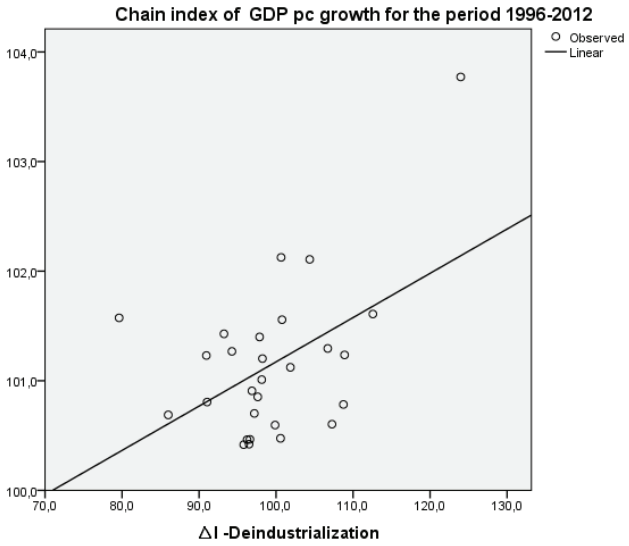


Figure 1. Graphic presentation of the regression model

In this way, we proved the starting hypothesis, based on which the process of deindustrialization has a negative impact on economic growth in transition economies in the long term.

Conclusion

Observing the process of deindustrialization of 28 transition countries in the period 1996-2012, through the parameter Industry value added expressed as a percentage of GDP, and economic growth, through changes in GDP per capita in the reporting period, it was confirmed that the former had a negative impact on economic growth of these countries in the analyzed time interval.

The question is how to further develop the industry in the countries that underwent or still undergo the process of transition, and where the place of industry in their future economic development is? In short, these countries have to develop the industry, of course, in the new conditions and with a new approach to their development policies. The industrial development should be more balanced in relation to the development of other economic activities and sectors. The policy of industrial development should start from the reality that exists in the global economy, reflected in the dominance of transnational companies in modern global industry. This practically means that the analyzed countries need to develop the industry in cooperation with these companies, especially by attracting their capital. Domestic resources for industrial development and domestic industrial companies need to be used for industrial development, especially in part that is not interesting for transnational companies.

References

1. Adamović, Lj. (2011).*Ekonomska kriza i održivi razvoj.* SVAROG. Banja Luka.

2. Bajec, J.,Joksimović, LJ. (2004).*Savrmeniprivrednisistemi.*Ekonomskifakultet, Beograd.

3. Reinert,E., (2006) *Globalnaekonomija: kakosubogatipostalibogatiizaštosiromašnipostajusiromašniji*,prevodsanorveškog.Čigoj aštampa.Beograd.

4. Cvetanović, S. (2005).*Teorija privrednog razvoja*, Ekonomski fakultet, Niš.

5. Cvetanović, S., Mladenović, I. (2012). Transnacionalnost kao koncept razvoja biznisa, finansijske inovacije i ekonomske krize, *Tematski zbornik: Nauka i svetska ekonomska kriza*. Ekonomski fakultet, Niš, str. 11-17.

6. Cvetanović, S., Mladenović, I. (2013).*Ekonomija kapitala i finansiranje razvoja.*Sopstveno izdanje, Niš.

7. Cvetanović, S., Mladenović, I. (2013a). Politika rasta zasnovana na preporukama vašingtonskog konsenzusa kao jedan od uzročnika ekonomske krize.*Tematski zbornik: Antikrizne politike i postkrizni procesi*. Ekonomski fakultet, Niš.

8. Rodrik, D. (2006). Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform, *Journal of Economic Literature*.44(4): 973-987.

9. Stiglitz, J., Ocampo, J., Spiegel, S., Ffrench-Davis, R., Nayyar, D. (2006).*Stability with Growth Macroeconomics, Liberalization, and Development*. Oxford University Press.Oxford.

10. Wiliamson, J. (1990).*What Washington Means by Policy Reform, Latin American Readjustment: How Much Has Happened*, Peterson Institute for International Economics. Washington.

COMPARATIVE ANALYSIS OF FACTORS OF ECONOMIC GROWTH IN TRANSITION AFTER ECONOMIC CRISIS: THE CASE OF SOUTHEAST AND CENTRAL EUROPE AND THE BALTIC COUNTRIES

Ph. D Snežana Radukić,[54]

Ph. D Jelena Petrović,[55] *Ph.*

D Žarko Popović[56]

Abstract

The economic recession that now affected the economy of most countries and developed ones, while other countries record adverse effects in the form of a significant economic slowdown, has imposed the issues to its overcome, to economic policymakers as well as macroeconomists. The European economy has experienced its deepest recession since the 1930, with a lowest point that occurred 2009. The biggest drop in GDP in 2009 recorded by the countries of South-eastern Europe and the former Soviet Republics and a little less the developed countries. Europe also recorded a sharp decline in GDP in 2009 (-4.6%) and point out that this decline contributed to the decline in most European emerging economies (-6%). It is interesting that the crisis has much more influence on the growth rates of the most developed countries than developing countries (for example Japan -6,3%; Germany -4,7%). In Europe also recorded a sharp decline in GDP in 2009 (-4.6%) and we emphasize that this decline was most contributed to the decline of European economies in developing countries (-6%). Regarding the movement of GDP in 2009 in the observed countries in the region (South-eastern Europe, Central Europe and the Baltic states), Latvia had the lowest rate (-17,9%), followed by Lithuania (-14,7%) and Romania (-6,8%). Looking at the countries studied and the time period after the 2009, it seems that Turkey and Estonia had the best performances (when it comes to growth) and the fastest recovery. The authors will try that on the basis of comparative analysis provide substantiated explanation of this situation and prospects of economic recovery of the region.

The main purpose of this paper is to examine the impact of the significant factors and activities on economic growth in transition countries after the economic crisis. The aim of this paper is to identify the common and individual contribution to the recovery factors in observed economy after the global crisis by appropriate methodology. The study included sixteen transition countries from South-eastern and Central Europe and the Baltic states, which are analyzed in the context of Transitional reports issued by the European Bank for Reconstruction and Development. The study is realized using the methods of descriptive statistics, correlation, regression and comparative analysis. The research finds that what is considered to be an advantages for economic recovery of transition economy – high degree of economic freedom, well-developed service sector, availability of natural resources, achieved level of transition, and inflow of foreign direct investment.

Keywords: *economic crisis, economic growth, comparative analysis, transition countries*

[54] Associate Professor, University of Niš, Faculty of Economics, Trg kralja Aleksandra ujedinitelja No. 11, 18000 Niš, Serbia, snezana.radukic@eknfak.ni.ac.rs

[55] Assistant Professor, University of Niš, Faculty of Sciences and Mathematics, Višegradska 33, 18000 Niš, Serbia, jelenapetrovic619@yahoo.com

[56] Associate Professor, University of Niš, Faculty of Economics, Trg kralja Aleksandra ujedinitelja No. 11, 18000 Niš, Serbia, zarko.popovic@eknfak.ni.ac.rs

Introduction

The paper presents the results of analysis of the key factors for the economic recovery of the 15 countries in transition during the global economic crisis from 2007 to 2009 and after the crisis to 2014. In this paper, we try to answer the question whether the observed transition countries recovered and at what pace. Madžar (1990) believes that the collapse of the socialist economies originated because they are mutually much less varied than it looked and we want to believe. Socialist economies have developed numerous modalities of concrete economic-system solutions and created many practical ways of operationalization of that what is on the preliminary plan was accepted as a permanent orientation. It was hard to find a country that has not tried growing number of economic and system solutions in practice and "the solutions are varied in a wide range not only going from country to country but also within individual countries, going from one phase of development to another. Much has been tested, on many variants have acquired extensive experience" (Madžar, 1990, p. 10).

The liberalization of the financial system in the late 1980s to the early 1990s and its upcoming integration on the global markets has opened these economies to foreign capital flows and thereby stimulate their financial development and economic growth. At the same time, however, financial liberalization and integration promoted by greater dependence on exports and inflows of financial capital makes these economies more vulnerable to external shocks. Then, the Washington Consensus stressed that the liberalization of interest rates, trade liberalization, privatization and deregulation of markets are attacked inside (Williamson, 1997). Economists and politicians have emphasized that the functioning of the market requires more conditions, but not only low inflation. This requires a policy framework to promote competitive markets and at the same time regulate and supervise financial systems (Stiglitz, 1998, p. 11). These fundamental issues, neglected by the Washington Consensus, become a reality for many of the former socialist countries that fought to create the right balance between a healthy government policy and adequate control and regulatory structures, on the one hand, and the "invisible hand" on the other. As a result, financial market liberalization and economic integration has exposed these countries to a higher risk of "getting the virus" from the outside.

Various studies have investigated the mechanisms of spread of financial crises in emerging markets and the specifics of the countries in transition. Some of them suggest that high level of financial openness tends to mitigate the impact of the financial crisis and the heavy reliance on international capital flows will not necessarily increase the financial vulnerability in the economies in transition (Brezigar-Masten et al., 2010; Hartwell, 2012). Most researchers, however, agree that withdrawal of financial capital, the banking panic and trade links are the main transmission mechanisms of the crisis in the former Soviet bloc (Chang and Velasco, 1998; Calvo, 2006; Edwards, 2008; Blot et al., 2009).

In addition, the literature suggests that transition economies, in general, and emerging markets are more vulnerable to financial crisis than developed countries (Shelburne, 2008; Reingart and Rogoff, 2009). Hutchison and Iloani (2005), for example, examined the impact of currency and banking crisis to a larger group of countries, including 24 developing countries. They found that real output contracts on average about 8% and the impact lasts for two years in those countries, compared to a 2% reduction in real output lasting for one year in developed countries. Dell 'Ariccia et al. (2008) provide evidence that the effect of the banking crisis on the real output of emerging markets is about 50% higher than the output in developed countries. Furceri and Zdzienicka (2011) investigated the impact of the financial crisis on the output for eleven European transition economies. They found that crises have a profound and long-lasting effect on these economies, reducing long-term output by about 17%.

The recent financial crisis of 2007-2009 has encouraged further economic research. Some economists discussed the transmission mechanisms and policy responses in countries in transition (Berglöf et al., 2009). Other studies provide insights into the reasons behind the variability of responses of countries to the crisis. The European Bank for Reconstruction and Development

(EBRD) in 2010 found that the structure of export products plays a key role, for example, machinery exporters were hit hardest at the peak of the crisis in the winter of 2008-2009. This analysis is supported by Gevorkyan (2011), which suggested that the magnitude of the effect of the crisis on the Commonwealth of Independent States (CIS) was different for net exports and net imports of countries due to differences in their exposure to external shocks.

Most studies, however, focused on the impact of the financial crisis in selected countries of the former Soviet bloc, thus presenting limited regional analysis of the effects of the crisis. EU Member States, members of the CIS, members of the Central and Eastern Europe (CEE) and the Baltic region are typical subject of research. There is a study that provides a detailed comparative analysis of the effects of the crisis on specific groups of countries, which are classified according to their sovereignty before the transition, the geographic location, the former USSR membership, the membership in the EU, the timing of transition reforms and the availability of resources (Shostya, 2014). Number of years of central planning affects the depth and strength of the administrative structure and the size of the private sector. Poland, for example, where the administrative system was is existence for a little more than 40 years, at the beginning of transition had the largest private sector. On the other hand, most of the former republics of the Soviet Union had a very small private sector, which made it extremely difficult for those regions to introduce profit incentives and the efficient management of resources, because these concepts are practically not existed during more than 70 years of socialist economic management. The longer the country was under the system of central planning, the greater was the impact of the crisis. The experience of many advanced countries in transition confirms that the development of a competitive private sector in the beginning of the transition process demonstrated a necessary prerequisite for achieving sustainable economic growth, increasing exports and technological modernization of the economy and, ultimately, full membership in the European Union.

Bearing in mind that foreign direct investment served as a growth engine of global economy and one of the key sources (in addition to foreign loans) of financing the deficit in the current account balance in the period before the crisis in many countries, the analysis of the dynamics of movement of the inflows of foreign direct investment in transition countries requires special attention, since, in the new post-crisis growth and development model, a significant role is given to foreign direct investment in speeding the pace of economic growth and improving the competitiveness of exports.

The global financial and economic crisis represents a tragic confirmation of embedded weaknesses the mechanisms that drive the globalization process, contributing at the same time, the return of confidence in the importance and the role that the state has in the correction of shortcomings in the market and the regulation of economic processes. At the same time, the crisis is stressed the importance of improving the competitive performances for increase flexibility in providing adequate responses and the ability of national economies to adapt quickly and remain outside the scope of the negative impact of external shocks, as conditions for ensuring long-term sustainable economic performances.

Radukić and Petrović-Randjelović (2014) pointed out that "the building of a developed market economy, which shows a high degree of flexibility and resilience to external shocks, as well as the pressure of competition, are key elements to achieve some degree of economic and political stability in the Western Balkans, and it is essential for achieving the goals of sustainable growth and employment as defined in the new European strategy ‘Europe 2020’" (Radukić, Petrović-Randjelović, 2014, p. 524).

In addition, existing knowledge is apparently overlooked some important factors that can contribute to the transition economies have a higher risk during the financial crisis. This research will help to fill the gap existing in the economic literature. It offers a new approach focusing on regional comparisons. Fifteen former socialist countries are grouped by geographical origin and the corresponding vulnerability of each group is compared. Research associated the variability in the group's responses to the EU membership, the degree of transition and economic freedom, and sectoral structure of GDP at the beginning of the crisis.

The work consists of several parts. The first part presents the methodology division of fifteen countries in two groups based on geographical criteria. It is followed by a discussion of the dependent and independent variables and model. We examine a linear regression equation to see the effect of the level of transition, the degree of freedom and other factors that have not been yet linked to the performance of countries during the crisis. The following section describes in detail the impact of the global financial crisis on the two groups of countries and discusses the empirical results. The paper concludes with a discussion of the relationship between the costs and benefits of financial liberalization and economic freedom. The authors hope to set a new direction to research on the effects of the recent financial crisis to transition economies.

1. Methodology and data

1.1. Classification of groups

Although the term "transition economy" is usually associated with the countries of Central and Eastern Europe and the former Soviet Union, there are countries outside of this region that have been shifting from socialist-type economy to a free market economy. In 2000-2002 the IMF gave a list of thirty three transition economies, including traditionally defined transition economies such countries as Cambodia, China, India, Laos, and Vietnam (IMF reports, 2000, 2001, 2002). The IMF has revised the list of transition economies later, when ten countries joined the EU (eight in 2004 and two in 2007) and so were considered to have officially completed the transition process (IMF, 2007).

The paper focuses on the fifteen former socialist countries of the South-Eastern and Central Europe, as well as the Baltic countries. The countries were divided into two groups according to their geographical location. The list below represents the two groups of countries and names of countries in each group:

I. Central Europe and Baltic States (8 countries):

1. Croatia
2. Estonia
3. Hungary
4. Latvia
5. Lithuania
6. Poland
7. Slovak Republic
8. Slovenia

II. South-eastern Europe (7 countries):

1. Albania
2. Bosnia and Herzegovina
3. Bulgaria
4. FYR Macedonia
5. Montenegro
6. Romania
7. Serbia

1.2. Data sources

Data on real GDP and transition indices for the fifteen transition economies are obtained from the reports of the EBRD (1996, 2006-2014, www.ebrd.com/documents/comms-and-bis/). Transitional indicators are developed by the EBRD Transition Report from 1994 to quantify the progress of each country in transition. These scores are published each year as part of the Transition Report and are redefined and amended by the original report. They are measured on a scale of 1 to 4+, where 1 represents little or no progress in reforms, and 4+ indicates that a country had made great progress in the transition to a particular aspect. Any change in the terms of adding plus or

minus on the integer evaluation of transition indicators considered to be an improvement or reduction in the score of progress by 0.33 compared to the previous year. Scores in 2005 and 2006 were based on the progress made in the following areas: large-scale privatization, small-scale privatization, governance and enterprise restructuring, price liberalization, trade and foreign exchange system, competition policy, banking reform and interest rate liberalization, securities markets and non-bank financial institutions, and infrastructure. Based on the Reports of the EBRD (2006 -2014) may be noted that the scores of transition indicators of transition economies at the beginning of transitional changes were low (1+ to 2), and that after the implementation of reforms it gradually increased over the years and that once achieved high the level of development and realization of reforms (score 4+) further in the transition period is not reduced.

The freedom index is data that it came from the Wall Street Journal and Heritage Foundation (www.heritage.org/index/pdf/) and which shows the degree of economic freedom in 183 countries since 2000. The index ranges from 0 to 100, where 100 represent the maximum freedom. For the ten components of the scores it is determined the average to give an overall economic freedom score for each country. Data on the size of the service sector were obtained from the World Bank, and the data on the resource abundance are taken from the EBRD transition reports.

1.2.1. The dependent variable

The model uses the average annual growth rate of GDP in the period of 2010-2014 to assess the impact of the financial crisis in fifteen transition economies. Early shock wave of the crisis was in 2007 for countries that had close financial and trade links with the United States, the country of origin of the crisis. GDP in 2009 was significant because it was the year of greatest impact of the crisis. Thus, the value of the output gap (the dependent variable GDP2014-2009) is measured by the difference between the value of GDP (current US$) in the period from 2009 to 2014 for each country. GDP statistics obtained from the EBRD economic statistics and forecasts online databases (http://www.ebrd.org). The lower value of the real GDP in the coming year, compared with the real GDP in the previous year, indicating that the difference, i.e. output gap, has a negative value. If the real GDP of the country in the previous year exceeded the real GDP in the next year, then the difference takes on a positive value, reflecting a better response to the crisis. Thus, the higher value of GDP2014-2009 is associated with a lower impact of the crisis on the country's economic performance (measured by the country's GDP).

Table 1 - Average annual growth rate of GDP in the period from 2009 to 2014

Country	**%**
Croatia	-1.79
Estonia	5.69
Hungary	1.17
Latvia	4.06
Lithuania	5.17
Poland	4.66
Slovak Republic	2.39
Slovenia	-0.33
Albania	2.11
Bosnia and Herzegovina	1.22
Bulgaria	2.13
FYR Macedonia	3.79
Montenegro	2.05
Romania	3.91
Serbia	0.58

Source: Author's calculation based on World Bank data

Thus, using the geographic growth rate it is calculated the average annual growth rate of GDP for the observed transition economies. The covered period refers to the period after the global economic crisis, i.e. the period from 2009 to 2014. Based on the values in Table 1, we can conclude that two countries recorded a decrease in GDP, namely: Croatia and Slovenia. The highest average annual growth rate of GDP is achieved Estonia, while Serbia recorded the lowest growth rate.
Thus, in paper, the dependent variable is the average annual GDP growth rate in the period from 2009 to 2014, and the independent variables were: service sector as percentage of GDP, inflow of foreign direct investment, freedom index, abundant natural resources, and transition indicators score (large-scale privatization, small-scale privatization, governance and enterprise restructuring, price liberalization, trade and foreign exchange system, competition policy, average transition scores). The values of the independent variables were taken for 2009 as the base year for the movement of GDP is taken 2009.

1.2.2. Independent variables

Two variables that are intended to determine the degree of transition and economic freedom at the beginning of the crisis and the impact of the crisis on countries in transition are Freedom index (FRDI) and Transition indicators score (TI). The transition from a planned economy to a free market economy was the cornerstone of the structural changes that have occurred in the former socialist bloc at the end of the last century. These changes have affected the economic, social and political layers, liberalization of production factors and product markets, as well as opening the economy to international trade and global finance. The speed and extent of these structural changes varies from country to country and from region to region. Some countries have been more successful in leaving the socialist state, while others were slow to apply the main features of the capitalist system (privatization, price liberalization, financial market reform, etc.). So, at the beginning of the global crisis of 2007-2009, the transition economies are very different in terms of volume of transition and degree of economic freedom. The scope of transition and degree of economic freedom that the country had before the crisis are the two most important determinants of the impact of the global crisis on the economy. During the time of crisis, liberalization of product markets, the markets of production factors and domestic financial markets coupled with exposure to foreign resources and foreign financial capital has become a serious drawback for countries that were closer to the capitalist system and thus were more vulnerable to external shock, especially financial one which originated in the largest economy in the world, USA. In this paper, we try to answer the question of whether the factors that have a negative impact on the economies of countries during the crisis at the same time contribute to a faster recovery and higher economic growth rates in the post-crisis period.

Variable SERV (Service sector as percentage of GDP) shows the structure of the GDP at the beginning of the crisis and the impact of the crisis on the services sector. During the transitional phase, a large service sector is certainly an advantage for the economy which is on the road from a planned economy to a market-based one. The scale of the service producing units (travel agencies, immigration agencies, repair shops, etc.) is generally smaller than that of the manufacturing units and does not involve expensive equipment and machinery. Therefore, it is easier to implement structural reforms (privatization, price liberalization and so on) in those countries that rely more on services. In times of crisis, however, a large services sector becomes a disadvantage. First, countries that achieve a significant part of its GDP from tourism (such as Bulgaria, Czech Republic and the Baltic countries) were affected by reduced in demand due to rising unemployment and falling incomes both, in the country and abroad. Second, countries with more developed financial sectors were affected by the financial crisis over traditional transmission mechanism. It would be likely that domestic banks in these countries have a portion of their portfolio invested in sub-prime mortgages or mortgage-backed securities (for example, Eastern European countries). In addition, countries with a higher fraction of foreign banks would have a serious credit crisis, because these banks withdraw the funds to compensate for losses in the United States or Western Europe countries.

Analysis of the real GDP expressed in US dollars for the observed transition economies will be carried out based on World Bank data (http://data.worldbank.org/indicator).

The variable RES (resource base) is a dummy variable that shows the effect of abundance or scarcity of natural resources in the economy's ability to withstand a financial shock. Transition economies differ considerably in terms of size and location of natural resources, which determined their resource bases. Russia, with almost 17 million square kilometers of land, was by far the largest in terms of geographical area and the most extreme case of favorable physical resources. With the exception of Kazakhstan, the rest of the economies in transition were much smaller in size and more dependent on foreign sources of raw materials and products, particularly energy. Eastern European countries, on the other hand, were close to their Western partners, and thus were relatively more open to trade and western ideas even during the socialist period. Analysis of availability and wealth of natural resources for the observed transition economies will be carried out on the basis of data obtained from the EBRD reports (www.ebrd.com/documents/comms-and-bis).

Variable FDI (foreign direct investment) shows foreign direct investment inflows in selected countries in transition in the period of 2007-2014. The inflow of foreign direct investment in countries in transition is considered a very important factor that contributes to economic growth, because we examine the degree of efficiency of foreign direct investment, or as the inflow of foreign direct investment contributed to GDP growth in the period after the crisis and the recovery of transition economies. Analysis of FDI inflows expressed in US dollars for the observed transition economies will be carried out based on World Bank data (http://data.worldbank.org/indicator).

1.3. Model

In order to analyze the key factors behind the variability in the impact of the financial crisis on the output gap in the transition economies, we applied regression and correlation analysis. Two regression equations are run independently:

$$GDP2014\text{-}2009 = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4$$
$$GDP2014\text{-}2009 = \beta_0 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11}$$

Where are: GDP2014-2009 - output gap as dependent variable, while X_1-X_{11} are the independent variable, as follows: X_1 - Services as a share of GDP, X_2 – Foreign direct investment, X_3 – Freedom index, X_4 – Abundant natural resources, X_5 – Large-scale privatization, X_6 – Small-scale privatization, X_7 – Governance and enterprise restructuring, X_8 – Price liberalization, X_9 – Trade and foreign exchange system, X_{10} – Competition policy, and X_{11} – Average transition score, while α_0 and β_0 are constants.

The paper applied two regressions specifically in order to avoid the multicollinearity problem that exists because of the high correlation between Freedom index and Transition indicators.[57] In the first regression analysis as dependent variable is observe the growth of GDP and as the independent variables: service as a share of GDP, foreign direct investment, freedom index and abundant natural resources. In the second regression analysis as dependent variable is observe the growth of GDP, and as independent variables: large scale privatization, small scale privatization, governance and enterprise restructuring, price liberalization, trade and foreign exchange system, competition policy, and average transition scores.

[57] Pearson correlation coefficient ranges from 0,6 to 8,1, and Sig. value ranges from 0,00 to 0,008.

2. Correlation and regression analysis

In order to comprehend the relationship between the average annual GDP growth rates and factors of economic growth, the paper studied the correlation and regression analysis. Results of the correlation analysis are summarized in Table 2.

Table 2 – Correlation link between the average annual GDP growth rates and factors of economic growth

Correlations			
		Average annual GDP growth rate	Sig. (1-tailed)
Pearson Correlation	Average annual GDP growth rate	1.000	.
	Service as a share of GDP	.250	.185
	Foreign direct investment	.256	.179
	Freedom index	.626	.006
	Abundant natural resources	-.021	.470

Source: Authors' calculations based on SPSS-17

On the basis of the value of Sig. in Table 2 it can be concluded that there is a statistically significant relationship between the average annual GDP growth rates and Freedom index. To get more detailed results, it is necessary to determine the combined effect of the studied factors on the average annual GDP growth rate.

Table 3 - Common influence of observed factors on the average annual GDP growth rate

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829[a]	.688	.563	1.39148
a. Predictors: (Constant), Abundant natural resources, Service as a share of GDP, Foreign direct investment, Freedom index				
b. Dependent Variable: Growth GDP				

Source: Authors' calculation based on SPSS-17

According to Table 3, the coefficient of determination is 0.688. In percentage term, we can conclude that the combined impact of the observed independent variables to the average annual GDP growth rate is 68.8%. In addition to the common, it is very important data about the individual impact of the observed factors on average annual GDP growth rate.

Table 4 - Individual influence of the observed factors on average annual GDP growth rate

Coefficients[a]											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-25.151	6.881		-3.655	.004					
	Services as a share of GDP (X_1)	.040	.069	.116	.579	.576	.250	.180	.102	.779	1.283

	Foreign direct investment (X_2)	.189	.104	.351	1.821	.099	.256	.499	.322	.840	1.190
	Freedom index (X_3)	.315	.080	.925	3.961	.003	.626	.782	.700	.573	1.746
	Abundant natural resources (X_4)	1.918	.935	.462	2.050	.067	-.021	.544	.362	.615	1.627
a. Dependent Variable: Growth of GDP											

Source: Authors' calculations based on SPSS-17

Based on Beta value in Table 4, we can conclude that the greatest impact has Freedom index. When Sig. value less than 0.05, variable makes a significant unique contribution to the prediction of the dependent variable. When the value is higher than 0.05, it must be concluded that this variable does not give a significant unique contribution to the prediction of the dependent variable. Based on the results of regression method, we can conclude that only Freedom index has a significant impact on the average annual GDP growth rate, as the only one with a Sig. value less than 0.05 (Sig. value is 0.003). To assemble the regression equations were used nonstandard coefficients in column B (Table 4). On this basis, we can write the first regression equation:

$$GDP2014\text{-}2009 = -25.151 + 0.40X_{1+}\ 0.189\ X_2 + 0.315X_3 + 1.918X_4$$

Table 5 – Correlation link between the average annual GDP growth rates and transition indicators

		Growth GDP	Sig. (1-tailed)
Pearson Correlation	Growth GDP	1.000	.
	Large scale privatization	.487	.033
	Small scale privatization	.169	.273
	Governance and enterprise restructuring	.292	.146
	Price liberalization	.733	.001
	Trade and foreign exchange system	.288	.149
	Competition policy	.371	.087
	Average transition score	.413	.063

Source: Authors' calculations based on SPSS-17

On the basis of the value of Sig. in Table 5 can be concluded that there is a statistically significant relationship between the average annual GDP growth rates and Large-scale privatization, as well as between the average annual GDP growth rate and Price liberalization. The common influence of transition indicators on the average annual GDP growth rate can be seen in Table 6.

Table 6 - Common influence of transition indicators on the average annual GDP growth rate

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872[a]	.760	.580	1.36343
a. Predictors: (Constant), Average transition score, Price liberisation, Trade and foreign exchange system, Large scale privatisation, Small scale privatisation, Governance and enterprise restucturing				
b. Dependent Variable: Growth of GDP				

Source: Authors' calculations based on SPSS-17

According to Table 6, the coefficient of determination is 0.760. In percentage term, we can conclude that the combined impact of the observed independent variables, except Competition policy, to the average annual GDP growth rate is 76.0%. In addition to the common, it is very important data about the individual impact of the observed factors on average annual GDP growth rate.

Table 7 - Individual influence of transition indicators on average annual GDP growth rate

Coefficients[a]											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-40.398	19.163		-2.108	.068					
	Large scale privatization (X_5)	-5.987	3.154	-1.286	-1.898	.094	.487	-.557	-.329	.065	15.307
	Small scale privatization (X_6)	-2.679	2.737	-.501	-.979	.356	.169	-.327	-.169	.114	8.743
	Governance and enterprise restructuring (X_7)	-4.420	2.884	-1.234	-1.533	.164	.292	-.476	-.265	.046	21.647
	Price liberalization (X_8)	16.236	4.401	1.242	3.689	.006	.733	.794	.639	.264	3.782
	Trade and foreign exchange system (X_9)	-9.460	5.689	-.614	-1.663	.135	.288	-.507	-.288	.220	4.550
	Average transition score (X_{11})	16.411	9.363	2.659	1.753	.118	.413	.527	.303	.013	76.779
a. Dependent Variable: Growth of GDP											

Source: Authors' calculations based on SPSS-17

The Tolerance value for Competition policy (X_{10}) is equal to 0.0, and the assumption of no multicollinearity is impaired. If the observed value is very small, it points to the huge correlation with other variables, then to the multicollinearity. For this reason, this independent variable is not included in regression method. Based on values of Beta in Table 7, we can conclude that the greatest impact had Average transition scores. Based on the results of regression method, we can conclude that only Price liberalization has a significant impact on the average annual GDP growth rate, as the only one with a Sig. value less than 0.05 (Sig. value is 0.006). On this basis, we can write the second regression equation:

$$GDP2014\text{-}2009 = -40.398 - 5.987X_5 - 2.679X_6 - 4.420X_7 + 16.236X_8 - 9.460X_9 + 16.411X_{11}$$

Regression analysis indicates that the degree of economic freedom and the level of transition from a planned to a market system at the beginning of the financial crisis were significant factors in our explanation of the effects of the crisis on countries in transition. These results are consistent

with our hypothesis that economic freedom, liberalization of financial markets and deregulation, pillars of the Washington Consensus, have made that transition economies are more vulnerable to the financial crisis. The degree of transition from a closed planned economy to an open market economy and the degree of economic freedom that the country had before the crisis seem to be the two most important determinants of the impact of the crisis. The Baltic countries, as well as members of the EU, have become leaders during the transition phase. They have become the most successful in the establishment of the securities market, reforming its banking system and building a chain of non-banking financial institutions. They also had the highest price level and interest rate liberalization, privatization and deregulation of financial markets. Their EBRD transition indicators score and Heritage Foundation indices of freedom were the highest among all other transition countries in the group at the beginning of the crisis. Free markets with price liberalization, however, are exposed these economies a greater risk during the crisis, turning advantages into disadvantages.
The resource base seems not to be a very important determinant of the intensity of the crisis. Although estimates suggest that the more abundant the resource base in 2006 was, the smaller was the impact of the crisis, should be taken into account that the coefficients are not significant. The results also show that no statistically significant effect of the size of the services sector to GDP growth. The results show that the abundant resources of the country were less affected by the global financial crisis, not because of certain primary resources, but because all these economies had a large agricultural sector, which mitigated the decline in GDP. Agriculture can help mitigate the impact of the financial crisis by ensuring food security for the rural population and by incentives by informal or “shadow” finance. In such circumstances, there is no link between the financial sector and investment in the agricultural sector. Farmers are more likely to get credit from their friends and family. Thus, the credit crisis in 2007-2009 had a smaller impact on the economies that are largely reliant on agriculture.

Conclusions

One of the most important issues raised by the global financial crisis among researchers is why the answers of countries were so different. It is clear that the variability in the effects of the crisis on economic performances (production, employment, credit flows, etc.) must be accompanied by differences in the economic situation before the crisis, but there is much disagreement about what the initial conditions matter. The focus of this paper is the effect of the global financial crisis of 2007-2009 in the fifteen countries that were once part of the former socialist bloc. For the classification of countries into two groups is taken the criteria of geographical location.

The paper points out a lot of variability in the responses of a group of countries to the crisis and examines the underlying reasons for this. It is true that in some countries a large current account deficit, the burden of external debt, a weak banking sector and weak financial soundness indicators are responsible for most of the effects of the crisis. However, the macroeconomic and financial foundations may not be used to analyze the variability in the effects among all economies in transition. Most financial institutions in transition countries did not have problematic financial instruments in their balance sheets. In addition, their financial systems lacked the sophistication and complexity to be substantially affected by the activities in derivative markets. This paper, in addition to investigating the effects of the crisis on different groups of countries, at the same time links these effects with some initial conditions that existed in these economies at the beginning of the crisis. In particular, this means that the countries that had a higher degree of economic freedom and a greater degree of transition were more vulnerable to the financial crisis. In addition, reliance on the financial sector has done the country more vulnerable to the crisis. The results also show that the natural resources and agricultural sector can serve as a buffer during critical times. The Baltic countries and other EU member states, the leaders in the transition process, were hit the hardest. They carried out a monetary reform, privatization and price liberalization earlier and more successfully than other countries did and thus integrated politically and economically in Western Europe faster and in greater amounts. At the beginning of the crisis, their trade was directed towards

Europe and the United States, and they attracted a large volume of foreign direct investment. While in 'normal' times all these transition elements describe a success story (and it did for more than a decade), in time of crisis advantages become disadvantages. In the absence of raw materials and a significant agricultural sector and relying mainly on the service sector and the foreign capital inflows, the three Baltic states, as well as other member states of the EU (except Poland), they had a lack of appropriate shock-absorbing mechanisms.

The results of this paper provide broad evidence on the relationship between benefits and costs of financial deregulation and trade liberalization. Although this paper does not reject the Washington consensus, it attempts to expand the analytical scope of policy making and suggests that policy makers should be aware of the risks related to economic liberalization, deregulation, and free markets, especially in the countries that have made progress in the foundation of capitalism relatively recently.

References

1. Berglöf, E., Korniyenko, E., Plekhanov, A., Zettelmeyer, J. (2009). Understanding the crisis in emerging Europe, *EBRD Working Paper*. No. 109. http://www.ebrd.com/downloads/research/economics/workingpapers/wp0109.pdf. Accessed on February 28, 2013. (accessed 20.06.2015.)
2. Brezigar-Masten, A., Coricelli, F., Masten, I. (2010). Financial integration and financial development in transition economies: What happens during financial crises? Centre d'Economie de la Sorbonne, *Documents de travail du Centre d'Economie de la Sorbonne*. No. 10021. http://halshs.archivesouvertes.fr/docs/00/46/94/99/PDF/10021.pdf. Accessed on February 28, 2013. (accessed 20.06.2015.)
3. De Melo, M., Denizer, C., Gelb, A. (1997). From plan to market: patterns of transition. In Bléjer, M. I., & Skreb, M. (Eds.). (2006). *Macroeconomic stabilization in transition economies*. (pp.17-72). Cambridge University Press.
4. Dell'Ariccia, G., Detragiache, E., & Rajan, R. (2008). The real effect of banking crises. *Journal of Financial Intermediation*. 17(1), pp. 89–112.
5. EBRD Economic statistics and forecasts (1996, 2006-2014). http://www.ebrd.org. Online Database (accessed 06.05.2015.)
6. EBRD Transition Report (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014). http://www.ebrd.com/downloads/research/transition/ (accessed 11.06.2015.)
7. Economic Freedom Index (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014). Heritage Foundation/The Wall Street Journal. [on-line]. http://www.heritage.org/Index/pdf/ (accessed 15.06.2015.)
8. Edwards, S. (2008). Financial Openness, Currency Crises, and Output Losses. In Edwards, S. Garcia,M. G. P. (Eds.), *Financial Markets Volatility and Performance in Emerging Markets*, (pp. 97–120). NBER books.
9. Furceri, D., Zdzienicka, A. (2011). The real effect of financial crises in the European transition economies. *Economics of Transition*. 19, pp. 1–25.
10. Gevorkyan, A. K. (2011). *Innovative fiscal policy and economic development in transition economies.* Oxford: Routledge.
11. Hartwell C. A. (2012). Financial Liberalization and Crises in Transition Economies: What Have 20+ Years Taught Us? Institute for Emerging Market Studies. http://courses.essex.ac.uk/ec/ec330/lecture_presentations/Financial%20Liberalization%20and%20Crises%20in%20Transition%20Economies%20NES%20FINAL.pdf. (accessed 11.03.2013.)
12. Hutchison,M., Ilan, N. (2005). How bad are twins? Output costs of currency and banking crises. *Journal of Money, Credit and Banking*. 37(4), pp. 725–752.

13. Petrović-Ranđelović, M., Radukić, S. (2006). "Efekti stranih direktnih investicija na održiv razvoj", *Ekonomika*. No. 3-4, Niš, pp. 185-197.
14. Radukić, S., Petrović-Ranđelović, M. (2014). „Strane direktne investicije kao imperativ unapređenja konkurentnosti srpske privrede u postkriznom periodu“, *Teme*. 2/2014, No. 2, April-June 2014, University of Niš, pp. 507-526.
15. Reinhart, C., Rogoff, K. (2009). The aftermath of financial crises. *American Economic Review*. 99(2), pp. 466–472.
16. Shelburne, R. C. (2008). Current Account Deficits in European EmergingMarkets, *UNECE Discussion Paper*. No. 2008.2 http://www.unece.org/fileadmin/DAM/oes/disc_papers/ECE_DP_2008-2.pdf. (accessed 11.03.2013.)
17. Shostya, A. (2014). The Effect of the Global Financial Crisis on Transition Economies. *International Atlantic Economic Society*. (2014) 42, pp. 317-332.
18. Stiglitz, J. (1998). More Instruments and Broader Goals: Moving Toward the Post Washington Consensus, WIDER Annual Lecture, Helsinki. http://www.wider.unu.edu/publications/annual-lectures/en_GB/AL2/. (accessed 11.03.2013.)
19. Williamson, J. (1997). The Washington Consensus Revisited, In Emmerij (ed).
20. World Bank Development Indicators Database. (2006–2014). http://data.worldbank.org/data-catalog/worlddevelopment-indicators. (accessed 11.06.2015.)
21. Zdravković, D., Radukić, S. (2007). “Promotion of sustainable development in countries in transition - challlenges of eastern enlargement of the EU”, Proceedings from VI international scientific conference *"Страны с переходной экономикой в условиях глобализации"*, Российский Университет дружбы народов, Экономический факультет, Moskva, 28-30. March 2007, pp. 5-9.

Acknowledgements: The paper presents a research within the project number 44007 supported by The Ministry of Education, Science and Technological Development of the Republic of Serbia.

ECONOMIC FREEDOM INDEXES AND ECONOMIC PERFORMANCE: EVIDENCE FROM THE ''TRANSITION COUNTRIES'' OF THE EU

Zoran Borović, MSc[58]

Abstract

In this paper we will present the results of our survey on institutional framework and economic performance in ten countries which have joined the European Union in 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia. The panel analysis is used to investigate the impact of institutional framework on economic performance for the time periods 1996-2003; 2004-2013; 1996-2013. To measure the quality of institutional framework we will use the economic freedom indexes, and to measure the economic performance we will use the GDP and GDP-per capita. We find that the economic freedom has a very strong impact on economic performance, and this impact is even stronger after joining the European Union. The membership in the European Union for these countries has lead to a higher efficiency.

Key words: *institutional framework, economic performance, economic freedom, panel analysis*

JEL classification: *C51, O11, O47, P51*

[58] Faculty of Economics, University of Banja Luka, zoran.borovic@efbl.org

1. Introduction

Understanding economic growth and all factors related to the growth is in the very core of modern economic science. The economic growth is essential for increasing welfare of all citizens, which is an ultimate goal of all governments. Nevertheless, some countries are far more richer and far more productive than others. During last 20 years the former socialist countries have faced a massive economic changes. Transition as an economic process, a shift from socialism to capitalism, is a remarkable experiment offering a more in-depth insight into the problem of economic growth (Kaseljevic 2006). The economic growth is a very long and complex process and economic theory is stil not able to provide a complete specification of all variables having a significant impact on economic growth. Adam Smith, the father of modern economics, published its most famous work "An Inquiry into the Nature and Causes of the Wealth of Nations" in 1776 and from its title it is obviously that main concern is increasing of wealth and welfare. In Neoclassical tradition the economic growth is presented as a function of human capital and technological development (Aghion, Howitt, 1998). In Smith's growth equation, besides the Neoclassical factors, institutional settings plays a very important role. In 1776 Adam Smith stressed the importance of proper institutional setting, an environment that creates the favorable rules of the game - rules that encourage the creation of the wealth. Neoclassical growth theory is based on supply - side factors and provides an analysis of the necessary conditions for growth - the growth of facilities. But, economic subjects will not invest, will not performe efficiently unless there an environment which is stimulative for business.

In this paper we will focus on the relation between economic performance and institutional setting, especially economic freedom. We will conduct our analysis on ten countries which have joined the European Union in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia). Most of these countries were all a part of socialistic economic system with central planning. Similar research was conducted by Keseljevic (Keseljevic, et al, 2007) and Engle (Engle, 2006). Kaseljevic used a panel analysis on a sample of 24 transitional countries for the period 1995-2004. This paper will expand analysis for the period 1995-2013 and we will use both economic freedom indexes (Fraser and Heritage index). We will split our analysis in three parts. First part will cover the time period before joining the European Union (1996-2003 for Heritage index, and 2000-2004 for Fraser index). Second part will cover the time period after joining the European Union (2004-2013 for Heritage index, and 2004-2011 for Fraser index), and the third part will cover the whole time period 1996-2013 (2000-2011 for Fraser index). Our main assumption is that economic freedom has a positive impact on economic performance.

2. Indexes of economic freedom, koncept and mesurement

The economic freedom is a key factor for prosperity and growth. Many authors have find a positive link between the economic freedom and economic performance. There are several definitions of the economic freedom. The economic freedom is the condition in which individuals can act with maximum autonomy and minimum obstruction in the pursuit of their economic livelihood and greater prosperity (Miler, et al 2014). Economic freedom means the degree to which a market economy is in place,where the central components are voluntary exchange, free competition, and protection of persons and property (Gwartney, et al, 2002, 5). Economic freedom is a composite that attempts to characterize the degree to which an economy is a market economy - that is, the degree to which it entails the possibility of entering into voluntary contracts within the framework of a stable and predictable rule of law that upholds contracts and protects private property, with a limited degree of interventionism in the form of government ownership, regulations, and taxes (Berggren, 2003). Even though there is no single definition of the economic freedom, there is a pretty wide agreement between scholars what economic freedom should include (Hanke, Walters, 1997, 3; Gwartney, Block and Lawson 1996; Johnson, Holmes, Kirkpatrick, 1998, 5):

- *Security of property rights.* When government fails to protect private property from governmental expropriation of property (unanticipated inflation, confiscatory taxation) it violates the economic freedom of the citizens. Government promotes economic freedom when they establish a legal structure that provides for the even handed enforcement of contracts and the protection of individuals from violence, coercion and fraud. Without well defined property rights, both productivity and economic freedom are eroded.
- *Freedom to engage in voluntary transactions.* Economic freedom is the extent to which individuals are free to engage in transactions. Government must refrain from reactions that interfere with personal choice, voluntary exchange and the freedom to enter and compete in labor and product market, because it violates the economic freedom of the people. For example, price controls interfere with the freedom to make exchanges on the markets.
- *Access to sound money.* Government violates economic freedom when they provide no access to sound money. Alternative method of storing purchasing power (bank accounts abroad, foreign currency bank accounts domestically) represents a freedom to use alternative currencies. Countries with less predictable level of inflation have lower economic freedom.
- *Freedom to engage in voluntary transactions outside a nations borders.* Tariffs and taxes on exports interfere with the freedom of buyers and sellers to make exchanges on the international markets. International area indicates the consistency of policies with free trade.
- *Restrictions on the market and freedom to compete.* Restrictions that limit entry into occupations, market and business activities also retard economic freedom. It is very important how countries use market forces rather than political considerations to allocate capital. Privately owned banks are better because is less likely that political influence will play a larger role in the allocation of capital.
- *Personal choice.* Economic freedom is reduced when taxes, government expenditures and regulations are substituted for personal choice, voluntary exchange and market coordination. Transfers and subsidies violate the economic freedom of individuals to keep their value, because it means less private consumption.

To measure the economic freedom economists use two widely accepted measurement: Economic Freedom of the World Index developed by the Fraser institute (hereinafter EFI), and Index of Economic Freedom developed by the Heritage Foundation in cooperation with the Wall Street Journal (hereinafter IEF). Both indexes are very similar and they measure how much are institutions and policies growth suportive.

2.1. The Economic Freedom of the World Index

The Economic Freedom of the World project was started in 1986 by the Fraser Institute and Milton and Rose Friedman. The EFI now covers 152 countries and the data are available for 100 countries back to 1980. According to Fraiser Institute, the cornestones of the economic freedom are (Gwartney, et al, 2013):

- Personal choice,
- Voluntary exchange coordinated by markets,
- Freedom to enter and cempoete in markets,
- Protection of persons and their property from aggresion by others.

The EFI measures the degree of economic freedom present in five major areas (Gwartney, et al, 2013):

- Size oh government,
- Legal system and property rights,
- Sound money,
- Freedom to trade internationally,
- Regulation.

The index is calculated using arithmetic averages and these five components are equally weighted. Every variable contains a sub-variables and in 2011 the EFI contains 42 distinct variables. All variables are graded from 0 (no economic freedom) to 10 (full economic freedom).

2.2. The Index of Economic Freedom

The IEF started in 1994 and its main goal was to explore the relationship between freedom and growth (Johnson, Holmes, Kirkpatrick, 1998, 5; Hanke, Walters, 1997, 7). According to heritage Foundation, the cornestones of the economic freedom are (Miler, et al, 2014):

- empowerment of the individual,
- non-discrimination,
- and open competition.

The IEF is constructed from ten subcomponents which are calculated from a number of subvariables and this ten components are equally weighted and averaged to produce an overall IEF. These ten components are grouped in four pillars of economic freedom (Miler, et al, 2014):

- Rule of Law (property rights, freedom from corruption);
- Limited government (fi scal freedom, government spending);
- Regulatory efficiency (business freedom, labor freedom, monetary freedom);
- Open markets (trade freedom, investment freedom, financial freedom).

3. Theoretical background

According to many authors the economic freedom is very important explanatory factor for economic growth. An index of economic freedom is usefull tool which enables a researcher to determine a quality of institutional framework. We belive that quality of institutional framework is a necessary condition for sustainable growth. Some authors focused on relation between economic freedom and GDP growth, while others focused on link between economic freedom and GDP per capita. The most important authors and analysis are summarized in table 1.

Table 1. *Economic freedom and economic growth*

STUDIES	DEPENDENT VARIABLE	INDEPENDENT VARIABLE	EFFECT
de Haan and Sturm (2000, 2001), Adkins, Moomaw and Savvides (2002), Cole (2003)	Growth	Change in the EF index	Significant, positive
de Haan and Sturm (2000, 2001), Adkins, Moomaw and Savvides (2002)	Growth	Level of the EF index	Not significant
Easton and Walker (1997), Scully (2002), Cole (2003), Powell (2003)	Growth	Level of the EF index	Significant, positive
Hanke and Walters (1997), Farr, Lord, Wolfenbarger (1998)	GDP per capita	Level of the EF index	Significant, positive
Heckelman and Stroup (2000)	Growth	Level of a version of the EFI with different weights	Significant, positive
Gwartney, Lawson and Holcombe (1998)	Growth	Government expenditure	Negative, significant
Gwartney and Lawson (1997)	GDP per capita, growth rate	Level of economic freedom	Positive, significant
Gwartney, Lawson (1999)	GDP per capita	Change in economic freedom	Positive, significant

Many researches prefer change in the economic freedom index as an independent variable. They conclude that positive change in economic freedom index contribute more significantly to the economic growth than the initial level of economic freedom. In the matter of fact, initial level of economic freedom appears statistically significant only if the change of economic freedom is also included as a variable (Berggren, 2003).

Both indexes of economic freedom are widely used in researches of relation between economic freedom and economic performance in transition economies. In 2006 Kaseljevic (Kaseljevic, et al, 2006) conducted panel analysis on 24 transition economies using both indexes of economic fredom for the period 1995-2004. According to Kaseljevic, relationship between economic freedom (Fraiser index) and GDP per capita is stronger than relationship between economic freedom and economic growth. He proves that Heritage index has even stronger relationship to economic performance than Fraser index. Panel analysis proves that higher economic freedom lead to better economic performance in all 24 transition economies. Baletic (Baletic, et al, 2007) also used both indexes of economic freedom to investigate Croatia`s institutional konvergence to the European Union (hereinafter EU).

Kovacevic (Kovacevic, et al, 2014) presented the results of a survey on Economic Freedom, and impact of its individual categories on economic growth in former socialist countries which have joined the European Union (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia). The results show a strong, positive impact of the Index of Economic Freedom published by the Heritage Foundation in cooperation with Wall Street Journal on the GDP. But this impact is not a statistically significant. The same results are obtained in the case of the GDP per capita. Decomposing the IEF has provided an insight in the IEF building components and its impact on the economic performance. Two out of four IEF

components have a negative impact on economic performance. Rule of Law (property rights, freedom from corruption) and Regulatory efficiency (business freedom, labor freedom, monetary freedom) have a negative impact on economic performance. The impact of the Rule of Law (property rights, freedom from corruption) is not statistically significant. The results show that increase of Regulatory efficiency will decrease the economic performance. Limited government and Open markets have a positive and statistically significant impact on economic performance. It is very unusual that Rule of Law and Regulatory efficiency have a negative impact. Increase in protection of private rights and increase of business freedom, labor freedom and financial freedom will decrease the economic performance.

Engle (Engle, 2006) conducted a research on 12 European transition countries that would either join the EU in 2004 or are in negotiations with the EU (TC-12 countries Latvia, Estonia, Lithuania, Poland Czech Republic, Slovak Republic, Hungary, Slovenia, Bulgaria, Romania, Croatia, and Turkey) using the current EU-15 member states as a benchmark. In his analysis Enge used the Heritage index and he finds that that the overall economic freedom score difference between the benchmark group and the TC-12 countries decreased from 0.83 in 1996 (Warner, 2002) to 0.45 in 2006 (Engle 2006). Engle finds a positive correlation between GDP per capita and IEF of 0.73 and it is signifficant at 5% level. Recent researches on relationship between economic growth and growth of the economic freedom shows strong, but different impact of the economic freedom growth on the economic growth in Western Balkan countries. Borovic (Borovic, 2014) used Heritage index in the form of first logarithmic difference as approximation of economic freedom discrete growth rate as independent variable to conduct analysis on two Western Balkan Countries (Republic Croatia and Bosnia and Herzegovina) for the time period 2002-2012. Analysis shows strong positive impact of the IEF growth for the Bosnia and Herzegovina and negative impact for the Republic Croatia.

4. Model and methodology

There are several factors which have a strong impact on economic performance in transitional economies. They can be divided in four groups (Kaseljevic, 2006): (1) factors of long term economic growth (which are capital, labor and technological improvements), (2) short-run cyclical factors, used to capture the logic of the transition cycle (inflation, etc.), (3) economic freedom or institutional quality, which we are interested in and (4) other variables like war, geographical position etc. For purpose of this survey we chose the following equation:

$$y_i = c + \beta_1 CPI_i + \beta_2 I_i + \beta_3 EF_i \qquad (1)$$

Where y_i is economic performance (measured with GDP and GDP per capita-Ypc) for country i, CPI is inflation for country i, I_i is average investment share to GDP for country i, and EF is the overall level of economic freedom index for country i. We will use the IEF for the time period 1996-2013 and 1996-2003. The EFI will be used for time period 2000-2011 (due to objective lack of data) and 2000-2003. This data will be used in our panel and cross-section analysis on ten countries which have joined the EU in 2004 (excluding Malta).

5. Data and results

Data on EFI and IEF are collected from Economic Freedom Network web site (http://www.freetheworld.com/), and from the Heritage Foundation web site (http://www.freetheworld.com/). Data on GDP (in $), GDP per capita (in $), CPI and investment share are collected from World Economic Outlook Database (http://www.imf.org/). Descriptive statistics are presented in Table 2. Data on investment share are in percentages, data on GDP are in bn, and data on GDP per capita are in units.

Table 2. Descriptive statistics

	1996-2013			
	Mean	Min	Max	Std
Y (GDP)	78.21	37.24	132.07	36.65
Ypc	11708.66	5837.22	19494.74	5226.52
CPI	5.02	1.35	13.87	2.95
I	24.47	19.30	29.76	3.02
EFI (2000-2011)	7.19	6.58	7.44	0.29
IEF	65.94	58.72	68.98	2.91
	1996-2003			
Y (GDP)	42.62	37.24	56.78	6.69
Ypc	6569.37	5837.22	8870.82	1004.58
CPI	6.88	2.98	13.87	3.67
I	25.08	24.35	26.90	0.89
EFI (2000-2003)	6.24	5.83	6.86	0.33
IEF	63.48	56.99	72.76	5.51
	2004-2013			
Y (GDP)	106.69	67.68	132.07	21.79
Ypc	15820.09	10623.75	19494.74	2924.60
CPI	3.55	1.36	7.51	1.75
I	23.98	19.30	29.76	4.01
EFI (2004-2011)	7.37	6.94	7.85	0.30
IEF	67.90	61.38	75.82	4.67

In Table 3. are presented the change between average, minimum, maximum and standard deviation data. The new values are obtained by dividing the data for the period 2004-2013 with the data for the period 1996-2003.

Table 3. Descriptive statistics differences

	Mean difference	Min difference	Max difference	Std difference
Y (GDP)	2.50	1.82	2.33	3.25
Ypc	2.41	1.82	2.20	2.91
CPI	0.52	0.46	0.54	0.48
I	0.96	0.79	1.11	4.48
EFI	1.18	1.19	1.14	0.91
IEF	1.07	1.08	1.04	0.85

In Table 4. are presented the results of panel analysis for time period 1996-2013 (2000-2011 for EFI). Choice between fixed and random effect is made based on Hausman test.

Table 4. Panel data regression results for the 1996-2013

Fixed effect			
log(Ypc)	Coef.	t	p value
log(IEF)	5.83	9.11	0
log(I)	-0.15	-0.74	0.45
log(CPI)	-0.06	-1.64	0.1
Random effect			
log(GDP)	Coef.	t	p value
log(IEF)	5.58	9.11	0
log(I)	-0.2	-0.98	0.32
log(CPI)	-0.06	-1.64	0.1
Random effect (2000-2011)			
log(Ypc)	Coef.	t	p value
log(EFI)	6.9	70.73	0
log(I)	-0.6	-2.89	0.0046
log(CPI)	0.08	1.99	0.04
Fixed effect (2000-2011)			
log(Ypc)	Coef.	t	p value
log(EFI)	7.12	11.26	0
log(I)	-0.58	-2.7	0.0075
log(CPI)	0.08	1.86	0.06

In Table 5. are presented the results of panel analysis for time period 1996-2003 (2000-2003 for EFI). Choice between fixed and random effect is made based on Hausman test.

Table 5. Panel data regression results for the 1996-2003

Random effect			
log(Ypc)	Coef.	t	p value
log(IEF)	1.09	2.92	0
log(I)	-0.0005	-0.003	0.99
log(CPI)	-0.11	4.86	0
Random effect			
log(GDP)	Coef.	t	p value
log(IEF)	1.07	2.88	0
log(I)	-0.05	-0.29	0.76
log(CPI)	-0.1	-4.62	0
Random effect (2000-2003)			
log(Ypc)	Coef.	t	p value
log(EFI)	3.18	4.35	0
log(I)	-0.11	-0.36	0.71
log(CPI)	-0.04	-1.37	0.18
Fixed effect (2000-2003)			
log(GDP)	Coef.	t	p value
log(EFI)	3.36	4.56	0
log(I)	-0.03	-0.09	0.95
log(CPI)	-0.05	-1.39	0.17

In Table 6. are presented the results of panel analysis for time period 2004-2013 (2004-2011 for the EFI). Choice between fixed and random effect is made based on Hausman test.

Table 6. Panel data regression results for the 2004-2013

Random effect			
log(Ypc)	Coef.	t	p value
log(IEF)	2.22	2.81	0
log(I)	-0.27	-1.98	0.05
log(CPI)	0.001	0.04	0.96
Random effect			
log(GDP)	Coef.	t	p value
log(IEF)	2.6	2.96	0
log(I)	-0.27	-1.99	0.04
log(CPI)	0.009	0.34	0.72
Random effect (2004-2011)			
log(Ypc)	Coef.	t	p value
log(EFI)	2.54	1.77	0.08
log(I)	-0.43	-2.33	0.022
log(CPI)	0.06	1.39	0.19
Fixed effect (2004-2011)			
log(GDP)	Coef.	t	p value
log(EFI)	3.25	1.92	0.05
log(I)	-0.46	-2.37	0.02
log(CPI)	0.07	1.53	0.13

In our analysis we will focus on the institutional framework and its quality. Panel analyses suggest that economic freedom has significantly contributed to the economic performance in selected countries.

Conclusion

The institutional framework is a necessary precondition for economic growth and prosperity. Our analysis is conducted on ten countries which have joined the EU in 2004 (excluding Malta). These countries were all a part of socialist economic system with central planning. For the time period 1996-2003 the economic freedom has a statistically significant impact on economic performance. The impact is even stronger when we use the Fraser index. For this period both investment share and inflation have a negative impact on economic performance, but their impact is not statistically significant. For the time period 2004-2013 our analysis shows that economic freedom have an even stronger impact on economic performance after joining the EU. Again, the Fraser index yields stronger relationship to economic performance than the Heritage index. For this period investment share have a negative impact on economic performance, and this time it is statistically significant. After joining the EU economic performance indicators have increased. The average GDP and GDP per capita have increased for more than 100%. Inflation and investment share have decreased. Decrease of investment share has started in 2008 and it is a result of World economic crisis. But, after joining the EU the standard deviation increased as well. This means that after joining the EU there is bigger dispersion between countries economic performance. In this time period economic freedom also increased by 18% the Fraser index and 7% Heritage index. Economic freedom is important precondition for sustainable growth. Our analysis shows strong relationship between economic freedom and economic performance for whole time sample (1996-

2013). This relationship is stronger in case of Fraser index. Investment share have a negative impact (statistically significant only in case of Fraser index and GDP per capita). Inflation has a negative impact in combination with Heritage index. But, in combination with Fraser index it has a positive and statistically significant impact.

Research analysis shows that economic freedom strongly impact the economic performance. This impact is stronger after joining the EU than it is before. In our survey, the Fraser index have a stronger relationship with economic performance than the Heritage index. Our results show a negative impact of investment share on economic performamnce, which is unexpected. The closer relationship between supply-side factors and economic performance will be investigated some other time. The EU membership have contributed to the economic freedom, and more economic freedom means the higher the motivation of economic agents and higher the efficiency and the growth.

References

1. Adkins, L. Moomaw, R. Savvides, A. (2002), Institutions, Freedom and Technical efficiency, *Southern Economic Journal*, Vol. 69, July, 92-108.

2. Aghion, P. Howitt, P. (1998), *Endogenous Growth Theory*, Massachustets: The MIT Press.

3. Baletic, Z. Jelena, B. (2007). Indices of Economic Freedom as a Measure of Croatia's Institutional Convergence to the EU with English Summary. *Ekonomski Pregled*, 58(12), 804-825.

4. Berggren, N. (2003). The Benefits of Economic Freedom: A Survey. *The Independent Review*, 8(2), 193-211.

5. Borovic, Z. (2014). Does economic freedom impact economic growth: Evidence from two Western Balkan Countries. *Industrija*, 42(2). 57-71.

6. Cole H. J. (2003), The Contributions of Economic Growth to World Economic Growth 1980-1999, *Cato Journal*, Vol. 23. No. 2, Fall, 189-198.

7. de Haan, J. Sturm, J.E. (2000), On the Relationship Between Economic Freedom and Economic Growth, *Public choice*, Vol 95, No. ¾, 363-380.

8. de Haan, J. Sturm, J.E. (2001), How Robust is the Relationship Between Economic Freedom and Economic Growth?, *Applied Economics*, Vol. 33, No. 7, 839-844.

9. Easton, S. Walker, M, (1997), Income, Growth and Economic Freedom, *American Economic Review*, Vol. 87, No. 2, 328-332.

10. Engle, R. (2006). The Transition Countries of the European Union: An Assessment of Economic Progress and its Relation to the Index of Economic Freedom. In: Proceedings of the Conference on Trends in Global Business. 103-116.

11. Gwartney, J. Holcombe, R. Lawson, R. (1998); The Scope of Government and the Wealth of Nations, *Cato Journal*, Vol. 18., no. 2., 163-190.

12. Gwartney, J. Lawson, R, (1999), *Economic Freedom and the Environment for Economic Growth*, Vancouver : Fraser Institute.

13. Gwartney, J.G. Robert, A.L, Block, W. (1996), *Economic Freedom of the World 1975-1995*, Vancouver : Fraser Insitute.

14. Gwartney, J.G. Robert, A.L. (2002). *Economic Freedom of the World: 2002 Annual Report*. Vancouver: Fraser Institute.

15. Gwartney, J.G. Robert, A.L. Joshua, H. (2013). *Economic Freedom of the World: 2013 Annual Report*. Vancouver: Fraser Institute.

16. Hanke, S. Walters, S. (1997). Economic Freedom, Prosperity and Equality: A Survey, *Cato Journal*, Vol. 17, No 2, 1-29

17. Johnson T. B. Holmes R. K, Kirkpatrick M. (1998), *1999 Index of Economic Freedom*, New York : Heritage Foundation.

18. Kašeljević, A. Redak, T. (2006), Does economic freedom enhance economic growth in transition countries?. V: *An enterprise odyssey: integration or disintegration*. [Compact disc ed.]. Zagreb: Faculty of Economics and Business, pp 16.

19. Kovacevic, S. Borovic, Z. (2014), Economic freedom and economic performance in former socialist countries-Panel aproach, *Proceedings of the Faculty of Economics in East Sarajevo*, Issue 9, pp 19-26.

20. Miler, T.A., Kim, B.A. Holmes, R.K. (2014). *2014 Index of Economic Freedom*. Washington, DC: The Heritage Foundation and Dow Jones & Company, Inc..

21. Powell, B. (2003), Economic Freedom and Growth: The Case of The Celtic Tiger, *Cato Journal*, Vol. 22., No. 3, Winter, 431-448.

22. Scully, W. G. (2002), Economic Freedom, Government Policy and the Trade off Between Equity and Economic Growth, *Public choice*, 113, 1-2, 77-96.

23. Warner, A. M. (2002) Twenty Growth Engines for European Transition Countries. In *The European Competitiveness and Transition Report 2001-2002*, 10-35. New York, NY: Oxford University Press, 2002.

THE INFLUENCE OF WEIGHTED AVERAGE TARIFF RATE ON EXPORT OF THE WESTERN BALKAN COUNTRIES[59]

MSc. Łukasz Klimczak[60]

Abstract

In the past fifteen years the countries of the Western Balkan (WB) region have been taking efforts towards trade liberalisation, which resulted i.a. in a significant decrease in the level of tariff barriers. The purpose of this research was to measure the impact of these processes on export performance of the WB countries. In order to assess it, an imperfect substitutes model of trade was employed. It explained the value of export with the World GDP (proxying external demand), real effective exchange rate (proxying price competitiveness of domestic products abroad), stock of FDI (proxying technological advancement) and weighted average tariff rate (proxying level of trade liberalisation). Surprisingly, the influence of trade liberalisation on export was found very small. On the other hand, the impact of the FDI stock seemed to be relatively high.

Key words: *trade liberalisation, export, imperfect substitutes model, Western Balkans, weighted average tariff rate*

[59] The research project was financed by means of the National Science Centre of Poland (Narodowe Centrum Nauki) granted upon decision number DEC-2013/11/N/HS4/03642.

[60] Cracow University of Economics, ul. Rakowicka 27, Kraków, lukasz.klimczak@interia.pl

1. Introduction

The region of the Western Balkans, covering in a geographical dimension Albania and majority of the countries that emerged after the breakdown of the SFR Yugoslavia, constitutes an interesting research object, because of the processes of trade liberalisation and economic integration that have been taking place in specific economic and political circumstances. They were preceded by a highly instable period of the 1990s, in which the people of the region suffered not only from warfare, but also from a significant decrease in industry output and from negative effects of barriers to trade that appeared in parallel with emergence of borders between countries of the former Yugoslavia. Thus, a question arises, if, and to what extent, the trade liberalisation processes that have been taking place in the Western Balkan countries in the new millennium, influenced their export performance.

The paper consists of four parts. After Introduction, in part two the main trade liberalisation processes in the Western Balkans were outlined. In part three, methodological aspects were highlighted and values of the main variables were presented. In part four, results were presented, followed by the main conclusions.

2. The main trade liberalisation processes in the Western Balkans

In the period of over 20 years that passed since the Socialist Federal Republic of Yugoslavia (SFRY) broke down, the newly evolved countries experienced profound changes, among which trade liberalisation processes seemed to play a significant role. The trade liberalisation took place in four main areas:

1. Stabilisation and Association Process
2. Bilateral free trade agreements
3. CEFTA-2006
4. WTO.

After the end of the conflict in Kosovo, in 1999 the European Union (EU) has begun the so-called Stabilisation and Association Process, which encompassed five countries of the South-Eastern Europe (SEE) – Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia and Serbia and Montenegro. Those participants committed themselves to adjust their institutions and procedures to the standards of the EU and to gradually decrease barriers to trade. In return, the European Union offered financial support, free access to the common market and perspective of a membership (Kaminski, de le Rocha 2003). The SAP required from the participating countries an engagement in a regional co-operation, especially in an economic field (Pjerotić 2008, p. 498). In this respect, the Western Balkan countries as well as Romania, Bulgaria and Moldova, signed on June 27th, 2001, an EU-guided document called *Memorandum of Understanding on Trade Liberalization and Facilitation* (MoU). It obliged them to sign until the end of 2002 bilateral free trade agreements with one another and to follow the World Trade Organisation (WTO) in this respect. In case of the countries of the former Yugoslavia, the bilateral agreements were an important step towards liberalising trade, which previously used to be completely free, being conducted as domestic. However, the bilateral agreements constituted a too complicated network. Mainly for the reason of simplicity, in December 2006 the WB countries together with Moldova signed for the Central European Free Trade Agreement, with since then was referred to as CEFTA-2006 (see Gressani, Mitra 2002, p. 14-15)[61]. The aims of the Agreement reached beyond the ones of typical FTAs, as defined in the GATT article XXIV, because they encompass (Miklaszewski 2005, p.6; Molendowski 2007, p. 95; Molendowski 2012, p. 98):

- facilitating development of economic relations by promotion of trade;

[61] The initial CEFTA agreement was signed in Dec. 21st, 1992, by Poland, Hungary, Czech Rep. And Slovakia.

- ensuring fair trade practices among the signatories;
- contributing to the harmonious development of the World trade.

It is important to notice, however, that at the beginning there was no consensus about a full trade liberalisation. Thus, the pace of the agreed trade liberalisation has been far from quick, taking into account an eight-year period of reaching fully liberalised trade.

Finally, the non-discriminatory trade liberalisation has taken the form of joining the World Trade Organisation. All countries of the region took an effort to become members of this organisation, with all consequences of liberalising trade outside of the FTAs. Apart from Bosnia and Herzegovina and Serbia, whose are "in progress toward membership", all other Western Balkan countries are currently members of this organisation[62].

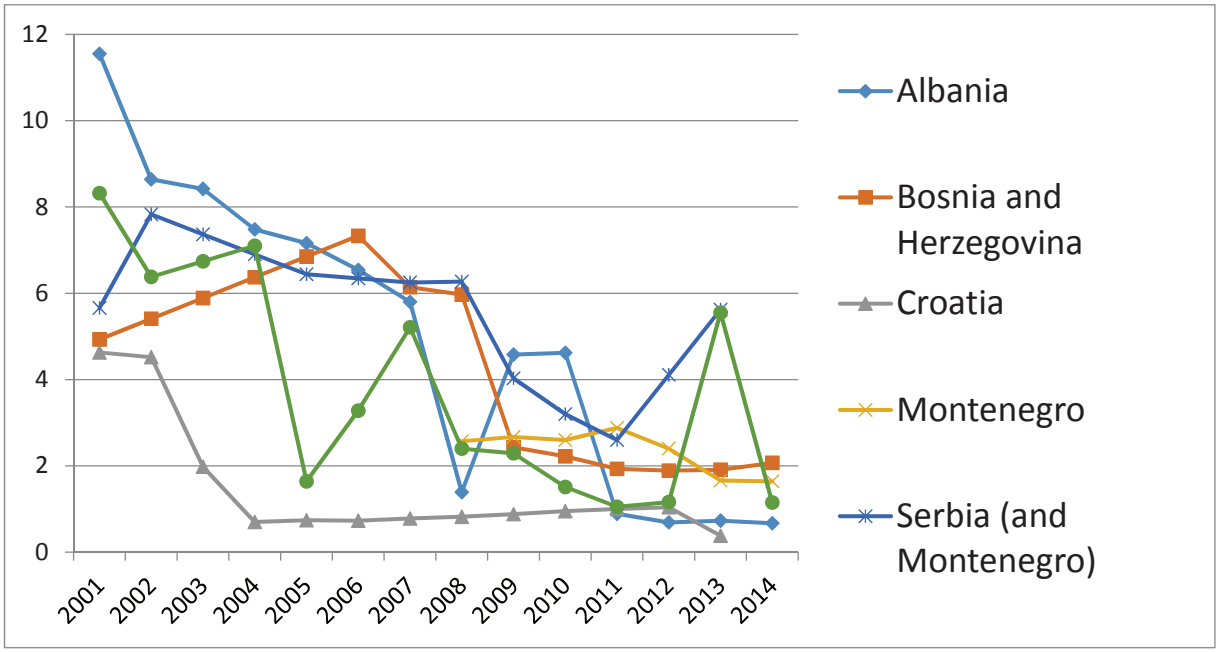
The above presented processes resulted in a significant decrease in tariff barriers, as presented in Table 1 and in Graph 1. In 2001 the values of weighted average tariff rate varied from less than 5% to almost 12%. Thirteen years later, the values ranged just from ca. 1% to 2%. The most significant drop of tariff barriers was reported by Albania, which moved from the most closed, to the most open economy among countries of the region. The smallest changes were reported by Bosnia and Herzegovina.

Table 1. Weighted average tariff rate in the Western Balkan countries in period 2001-2014.

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Albania	11.5	8.6	8.4	7.5	7.2	6.5	5.8	1.4	4.6	4.6	0.9	0.7	0.7	0.7
Bosnia and Herzegovina	4.9	*5.4*	*5.9*	*6.4*	*6.9*	7.3	6.1	6.0	2.4	2.2	1.9	1.9	1.9	2.1
Croatia	4.6	4.5	2.0	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.0	0.4	.
Montenegro	-	-	-	-	-	-	-	2.6	2.7	2.6	2.9	2.4	1.7	1.6
Serbia (and Montenegro)	5.7	7.8	*7.4*	*6.9*	6.4	*6.4*	6.3	6.3	4.0	3.2	2.6	*4.1*	5.6	.
TFYR of Macedonia	8.3	6.4	*6.7*	7.1	1.6	3.3	5.2	2.4	2.3	1.5	1.1	1.2	5.6	1.2

Note: Data in *italics* were interpolated. "-" denotes not applicable data. "." denotes lack of data and possibility of interpolation.
Source: http://unctadstat.unctad.org/EN/, accessed: 01.10.2015.

[62] The article was submitted in October 2015. Kosovo isn't currently taking part in the WTO-accession process.



Graph 1. Weighted average tariff rate in the Western Balkan countries in period 2001-2014.
Note: A part of the missing data were interpolated.
Source: as in Table 1.

3. Imperfect substitutes model of trade

The models of perfect and imperfect substitutes constitute a complementary concept. They explain the value of a country's export especially with external demand for exported goods[63]. The possibility of substitution between domestic and imported good is in this case a discriminant enabling to choose between both models. Considering perfect substitutes, there is no possibility for a simultaneous export and import of the same type of goods. One country is either an exporter or an importer of a certain good. This can be associated with trade with homogenous products, which implies limited practical application, as majority of products are diversified. In reality, substitution of products is usually limited which means, that a country can be simultaneously exporter and importer of the same type. In this event, the imperfect substitutes model is in use[64].

According to the assumptions of the model, the value of export is mostly a function of an external demand, which is proxied by the World GDP, and competitiveness of domestic goods abroad, which is proxied by real effective exchange rate (REER). The latter one is calculated by correcting nominal exchange rate courses with the difference in levels of inflation. It takes into account shares of certain countries in the export value of the exporting country. REER shows changes in purchasing power of the local currency and indicates competitiveness of domestic goods on the international market. In the presented model, external demand and competitiveness were modified by the stock of the foreign direct investment and effects of trade liberalisation, which was proxied by the weighted average tariff rate.

The model is constructed as a power function which enables to interpret estimated values of coefficients as elasticities.

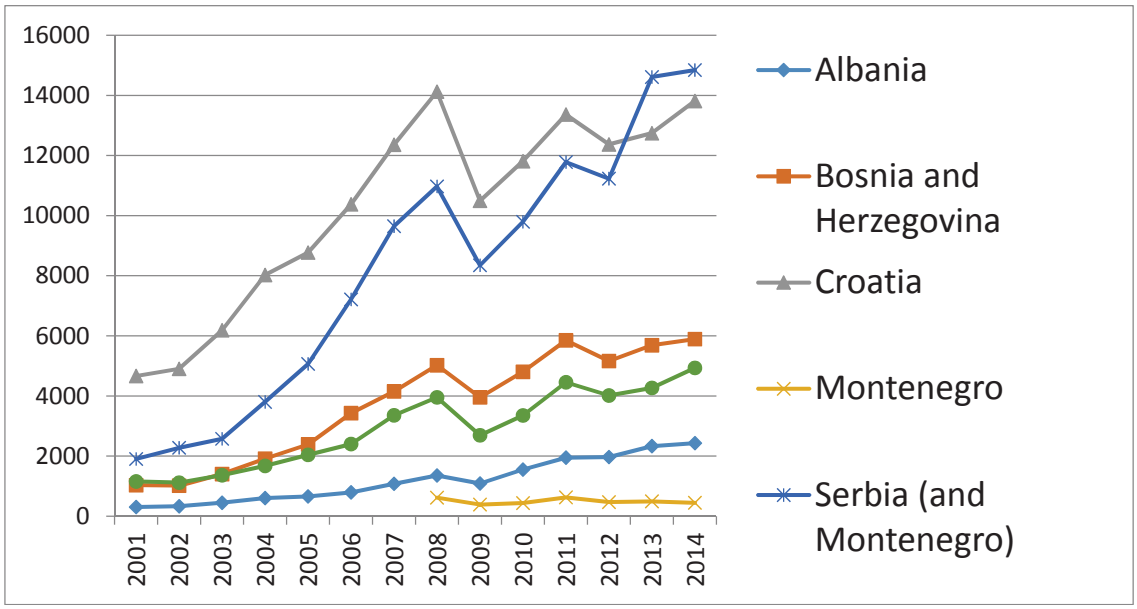
[63] These models were first presented by M. Goldstein and M. Khan (1985).
[64] The imperfect substitutes model is used i.a. by the central bank of Poland - Narodowy Bank Polski (see Mroczek, Rubaszek 2003), Bulgarian National Bank (see Penkova-Pearson 2011) and The Foreign Trade Research Institute (see Barteczko, Przystupa, 2006).

$$EXP_{it} = GDP_t^a * REER_{it}^b * FDI_{it}^c * WATR_{it}^d * e^{\delta}$$

where:
EXP_{it} - export of country *i* in year *t*
GDP_t - World GDP in year *t*
$REER_{it}$ - real effective exchange rate of country *i* in year *t*
FDI_{it} - stock of foreign direct investment in country *i* in year *t*
$WATR_{it}$ - weighted average tariff rate in country *i* in year *t*
a, b, c, d - coefficients
δ - error term.

In order to estimate the model, it was reconstructed into a log-linear form. It was then estimated threefold: as pooled data with OLS, as *one-way* fixed-effects and as *two-way* fixed effects model. The research encompassed five Western Balkan countries: Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia and Serbia and Montenegro, in years 2001-2014[65].

The dependent variable – the value of export – showed in the period 2001-2014 a similar trend in almost all of the analysed countries (Graph 2)[66]. After significant increase in years 2001-2008, a one-year sharp drop occurred in 2009, most probably due to the World economic crisis. It was followed by five years of recovery. As a consequence, in 2014 in all of the countries except Croatia and Montenegro the value of export was higher than before the crisis, in 2008.

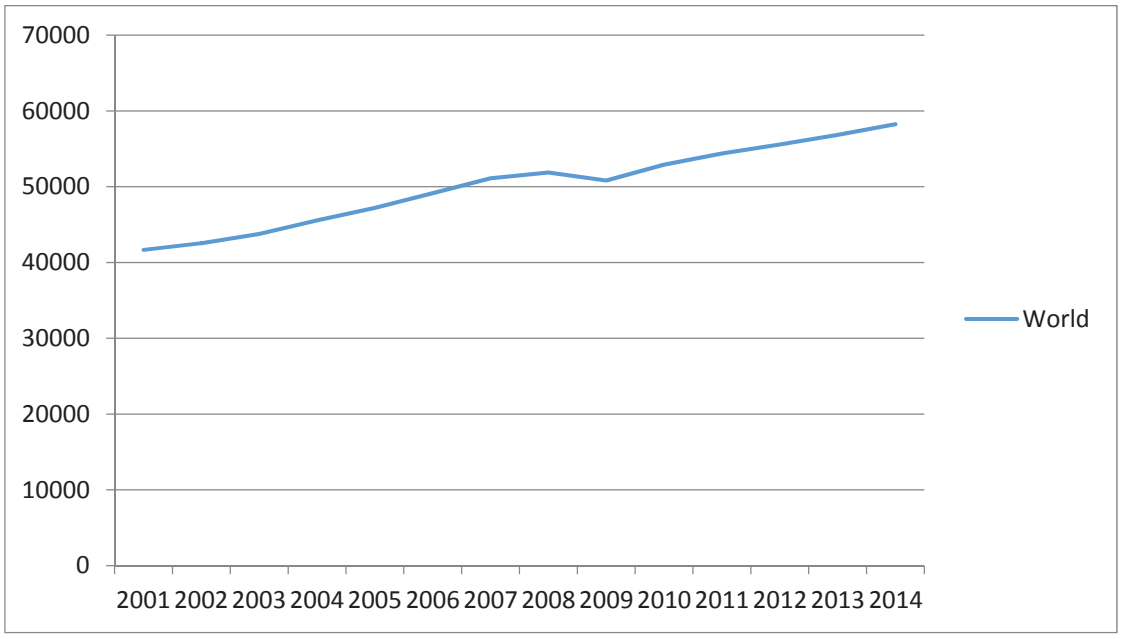


Graph 2. Export (million USD)

Source: http://unctadstat.unctad.org/EN/, accessed: 01.10.2015.

Similarly to the export variable, also the World GDP (Graph 3), which represented external demand, was characterised by an upward trend until 2008. Then, after a one-year drop, the rising trend continued until the end of the examined period. Similarity of trends resulted in a relatively high positive correlation of 0.56 between export and the World GDP, which was expected.

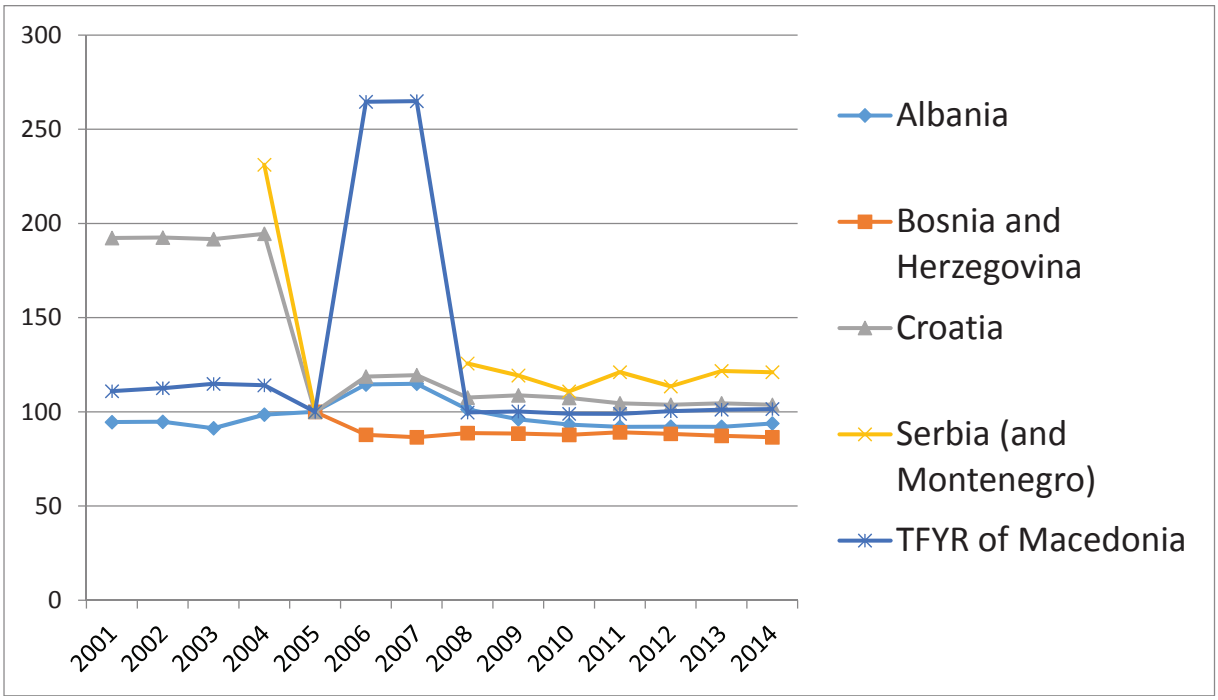
[65] For econometric purposes, Serbia and Montenegro after 2006 were still treated as a one country. Values of export and FDI stock of Montenegro after 2006 were added to the corresponding values of Serbia. The values of the two other variables (REER and WATR) after 2006 were taken just of Serbia.
[66] Values of all variables apart from WATR, were presented in Appendix, Table A1.



Graph 3. World GDP (billion USD, constant prices)

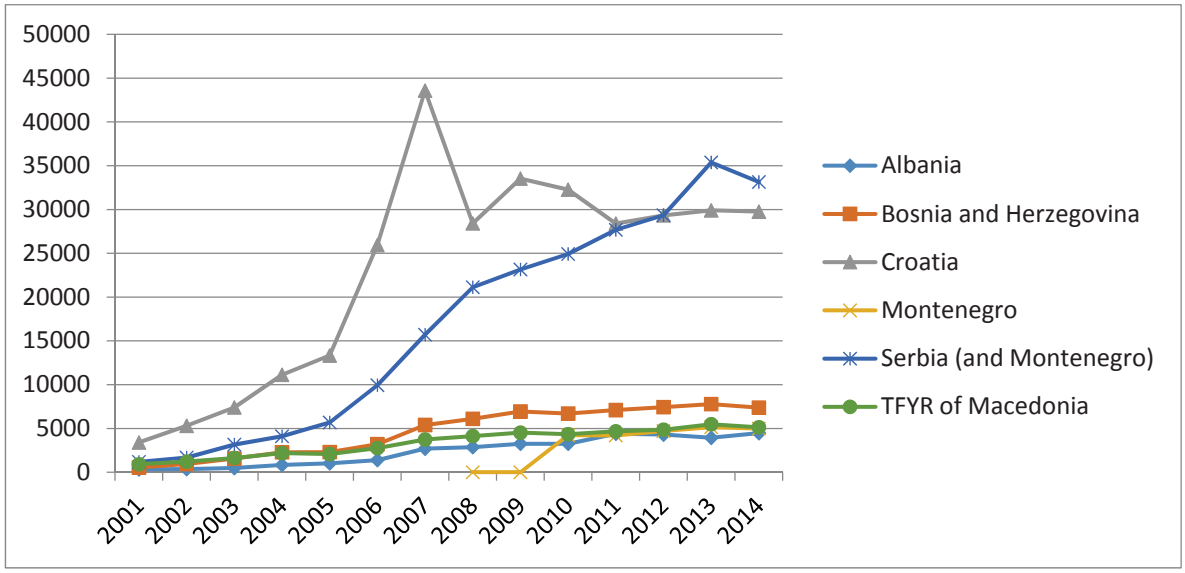
Source: http://unctadstat.unctad.org/EN/, accessed: 01.10.2015.

Changes of the real effective exchange rate shown on Graph 4. were not easy to interpret. In the case of FYR Macedonia and Croatia very high temporary changes of the REER were recorded, but they were both anticipated and followed by relative stabilisation of the level of this variable. In the case of Serbia (and Montenegro) a significant lack of data occurred for the beginning of the analysed period and in years 2006 and 2007. In 2004 an outlying observation was recorded. However, due to the mentioned lack of data it is hard to judge if this was just a one-time rise of the value of the REER variable, or a part of a longer trend. A small but positive correlation with export (0.15) was a surprise, as higher exchange rate (resulting in lower price competitiveness of domestic goods abroad) should adversely affect export. An explanation could be the lack of a part of the data, as well as relatively small coefficient of variation (0.056).



Graph 4. Real effective exchange rate
Source: http://unctadstat.unctad.org/EN/, accessed: 01.10.2015.

The last of the explanatory variables, the stock of foreign direct investment (Graph 5), was characterised by an upward trend in almost all countries and in almost all periods. The main exception was Croatia, which recorded a sharp decrease in 2008. In the following years the level of the FDI stock was stable. Although this variable was highly correlated with export (0.96), causality cannot be assumed due to various ways of possible interactions between FDI and export. The relation much depends on the type of the FDI, as horizontal investments may restrain trade, whereas vertical ones may facilitate it, especially with the investing country (Camarero and Tamarit, 2003). Regarding the region of the South-Eastern Europe, Mehić and Babić-Hodović (2011) found positive and statistically important influence of the FDI on exports of the SEEs, which was in a contrary to results of Estrin and Uvalic (2013).



Graph 5. Stock of the FDI (million USD, at current prices and current exchange rates)
Source: http://unctadstat.unctad.org/EN/, accessed: 01.10.2015.

4. Estimation results

As mentioned earlier, the panel model was estimated threefold: as pooled data with OLS, as a *one-way* fixed-effects and as a *two-way* fixed effects model. In case of each of the estimation types, the model proved to fit the data very well – the values of the adjusted R-squared amounted to 0.91, 0.99 and 0.99 accordingly.

The majority of coefficients appeared to have expected signs (see Table 2). External demand, proxied by the World GDP, only in the pooled model had a negative sign (-0.26), although the coefficient was statistically not significant. In both fixed effects models the signs were positive (2.58 and 4.01 accordingly) and in the *one-way* model the coefficient was statistically important. This confirms the assumption of the imperfect substitutes theory, that external demand plays an important role in countries' exports.

On the other hand, the positive signs of the REER coefficients were not expected and hardly explainable, as rise of the REER means worse competitiveness of domestic products abroad, which cannot support their export. Although the values, which ranged from 0.17 to 0.27, were not high, in both fixed effects models they were statistically significant.

The third explanatory variable, the stock of the foreign direct investment, showed positive and relatively strong influence on export. The values of its coefficients ranged from 0.29 to 0.80 and in all three types of the model they were statistically significant, similarly to results of Mehić and Babić-Hodović (2011). However, they were in a contrary to the findings of Estrin and Uvalic (2013) who argue that inflow of the FDI to the SEEs didn't stimulate their export growth.

Finally, the values of the coefficients standing by the WATR variable took expectedly negative, but very low values (from -0.08 to -0.00), which in both fixed effects models were statistically significant. The fact that the influence of the lowered tariff barriers on export was so limited was a surprising outcome of this research. Taking into account findings of Klimczak (2014) and Trivić and Klimczak (2015), arguing that trade liberalisation had relatively higher influence on trade within the region of the Western Balkans, one can infer that those intra-regional effects of trade liberalisation were higher than effects for trade with further-located countries.

Table 2. Estimation results

Estimation type	**POOLED - OLS**	**FIXED EFFECTS (one way)**	**FIXED EFFECTS (two way)**
const	2.85 (6.51)	-22.95*** (4.74)	-39.63 (38.90)
GDP	-0.26 (0.58)	2.58*** (0.47)	4.01 (3.55)
REER	0.27 (0.17)	0.17** (0.08)	0.23*** (0.08)
FDI	0.80*** (0.05)	0.29*** (0.06)	0.37*** (0.08)
WETR	-0.00 (0.06)	-0.08** (0.03)	-0.06** (0.04)
No. of observations:	59	59	59
R-squared:	0.919602	0.986711	0,991492
Adjusted R-squared:	0.913647	0.984585	0,987014

Notice: ***, ** and * indicate significance 1, 5 and 10 per cent levels accordingly. Source: Own calculations

As the unexpected sign occurred in the case of the REER coefficients, in order to check for robustness of the results the model was tested for presence of influential observations. Three observations with a leverage point were than excluded from the model. The results of estimation of the new model did not show bigger changes comparing to the previous one, though.

5. Conclusions

Trade liberalisation processes that have been taking place in the Western Balkans since 1991 resulted in a decreased level of tariff protection measures. In the research, the imperfect substitutes model has been employed in order to examine the impact of lowering tariff barriers on export performance of the countries of the region. The main finding was that although lower tariffs supported export, their influence was very low.

On the other hand, the World GDP and stock of foreign direct investment in the exporter's country proved to have relatively strong influence on export. This couldn't be said, however, about the real effective exchange rate. The positive sign of its coefficients cannot be explained on the grounds of the theory. Further research should encompass a wider scope of potential trade determinants, especially non-tariff barriers and non-economic factors influencing trade performance.

References

1. Barteczko, K., Przystupa, J. (2006). *Czynniki określające zmiany strumieni handlu zagranicznego Polski i ekonometryczna prognoza obrotów na lata 2007 – 2009*, Instytut Koniunktur i Cen Handlu Zagranicznego, Warszawa 2006.

2. Camarero, M., Tamarit, C. (2003). *Estimating exports and imports demand for manufactured goods: the role of FDI*, European Economy Group, Working Paper, No. 22

3. Estrin S., Uvalic M. (2013). *Foreign direct investment into transition economies: Are the Balkans different?*, LSE 'Europe in Question' Discussion Paper Series, LEQS Paper No. 64/2013.

4. Goldstein, M., Khan, M. (1985). *Income and price effects in foreign trade*, [in:] Handbook of International Economics, chapter XX, Elsevier Science Publishers B.V., 1985.

5. Gressani D., Mitra S. (2002). *Structural Reforms in Southeastern Europe since the Kosovo Conflict*, World Bank Technical Paper No. 526, Europe and Central Asia Poverty Reduction and Economic Management Series, The World Bank, Washington 2002.

6. Kaminski B., de le Rocha M. (2003). *Stabilization and Association Process in the Balkans: Integration Opinions and their Assessment*, World Bank Policy Working Paper No. 3108, 2003.

7. Klimczak Ł. (2014). *The gravity model as a tool for the international trade analysis – a case study of the Western Balkans*, [in:] Proceedings of the 8th Professor Aleksander Zelias International Conference on Modelling and Forecasting of Socio-Economic Phenomena, May 6–9, Zakopane, Poland, pp. 67–76.

8. Mehić, E., Babić-Hodović, V. (2011). *Izravna strana ulaganja i trgovina u zemljama Jugoistočne Evrope* [in:] Trgovina kao pokretač razvoja Srednje i Jugoistočne Europe, 16th November Zagreb: Ekonomski fakultet, pp. 139-155

9. Miklaszewski S. (2005). *Próba bilansu dokonań i przyszłość CEFTA w świetle rozszerzenia Unii Europejskiej*, Zeszyty Naukowe Akademii Ekonomicznej w Krakowie nr 695, s. 5-21, Kraków 2005.

10. Molendowski E. (2007). *Liberalizacja wymiany handlowej krajów Europy Środkowowschodniej w okresie transformacji ze szczególnym uwzględnieniem doświadczeń krajów CEFTA*, Difin, Warszawa 2007.

11. Molendowski E. (2012). *Integracja handlowa nowych państw członkowskich (UE-10)*, Difin, Warszawa 2012.

12. Mroczek W., Rubaszek M. (2003). *Determinanty polskiego handlu zagranicznego*, Materiały i Studia, Narodowy Bank Polski, Nr 161, Warszawa, lipiec 2003.

13. Penkova-Pearson E. (2011). *Trade, Convergence and Exchange Rate Regime: Evidence from Bulgaria and Romania*, Bulgarian National Bank Discussion Papers, DP/85/2011.

14. Pjerotić L. (2008). *Trade Liberalization in the South East Europe – Effects and Controversial Issues*, Panoeconomicus, 2008, 4, s. 497-522.

15. Trivić J., Klimczak Ł. (2015). *The Determinants of Intra-Regional Trade in the Western Balkans*, Zbornik radova Ekonomskog fakulteta u Rijeci, časopis za ekonomsku teoriju i praksu - Proceedings of Rijeka Faculty of Economics, Journal of Economics and Business, Vol. 33, No. 1, 2015, pp. 37-66.

Appendix 1

Table A1. Values of the variables used in the model

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Export (million USD)														
Albania	305	330	447	603	658	793	1078	1355	1088	1550	1948	1968	2332	2431
Bosnia and Herzegovina	1031	1015	1400	1912	2388	3428	4152	5021	3954	4803	5850	5162	5687	5892
Croatia	4666	4904	6187	8024	8773	10377	12360	14124	10492	11811	13364	12369	12742	13814
Montenegro								617	388	437	628	469	494	446
Serbia (and Montenegro)	1903	2275	2575	3801	5065	7212	9648	10972	8345	9795	11779	11229	14611	14843
TFYR of Macedonia	1155	1116	1363	1673	2041	2401	3356	3953	2692	3351	4455	4015	4267	4934
GDP (billion USD, at constant prices (2005) and constant exchange rates (2005))														
World	41660	42549	43769	45562	47203	49154	51104	51864	50820	52900	54381	55569	56837	58245
Real Effective Exchange Rate (year 2005 = 100)														
Albania	94	95	91	99	100	115	115	101	96	93	92	92	92	94
Bosnia and Herzegovina					100	88	87	89	88	88	89	88	87	86
Croatia	192	193	192	195	100	119	120	108	109	107	105	104	105	104
Serbia (and Montenegro)				231	100			126	119	111	121	113	122	121
TFYR of Macedonia	111	113	115	114	100	265	265	100	100	99	99	100	101	101
FDI stock (million USD, at current prices and current exchange rates)														
Albania	327	360	483	837	1020	1392	2693	2869	3258	3255	4399	4304	3936	4466
Bosnia and Herzegovina	544	942	1561	2286	2302	3203	5397	6103	6936	6709	7099	7440	7787	7383
Croatia	3406	5309	7402	11133	13332	25943	43584	28415	33537	32273	28398	29333	29911	29761
Montenegro								0	0	4231	4209	4707	5143	4983
Serbia (and Montenegro)	1194	1685	3152	4110	5687	9943	15710	21130	23149	24919	27684	29344	35375	33142
TFYR of Macedonia	916	1217	1632	2193	2087	2764	3747	4132	4525	4351	4678	4863	5489	5140

Source: http://unctadstat.unctad.org/EN/, accessed: 01.10.2015.

FISCAL AND MONETARY STABILIZATION POLICY OF THE "CLOSED" ECONOMY

Dalibor Tomaš, master of sciences in economics[67],

Jasmin Komić, PhD in economics[68],

Darko Milunović, master in economics[69]

Abstract

Stabilization policies are commonly understood as the aggregate demand management policies aimed at maintaining full employment and price stability. The basic principle of the aggregate demand management policies is that the state can neutralize, or at least mitigate the consequences of actions of the private sector in order to reduce or eliminate the fluctuations which occure in aggregate demand. Thus, stabilization policy is actually counter-cyclical economic policy which is necessary to eliminate short-term fluctuations in business cycles, that is, to mitigate the amplitude of these oscillations. From the macroeconomic point of view it is not enough just to establish that there is an imbalance. Much more important challenge for macroeconomists is to explain why there is a deviation from the steady state, and perhaps most importantly, what can be done, if anything can, to avoid or at least mitigate the observed disorders. The subjects of this paper is theoretical analysis of the impact of stabilization policy on the elimination of fluctuations that occur in the commodity and financial market and the labour market, with the aim of establishing the conditions of general equilibrium, i.e. to ensure the macroeconomic stability. Given the complexity of the matter being investigated and its specificity in different economic circumastances, it can be concluded that there is a multitude of different, often conflicting, views. The aim of this study was to summarize all research and perform a comprehensive macroeconomic model, which would be the proof of the necessity and expediency of stabilization policy, and on the other hand, a universal analytical tool for policymakers in general. The paper is based on the assumption that stabilization policy can contribute to the elimination, or at least mitigating the fluctuations that occur in the "individual" markets, and thus fully or at least partially provide conditions of general equilibrium, i.e. create conditions for a stable and smooth economic growth. Through the analysis conducted in this paper, the authors have come to the conclusion that in a situation of unemployment an increase in budget spending has higher multiplicative effect on the increase in economic activity rather than the reduction in budget revenues, that is, budget allocations through tax cuts. Also, it has been proven that an increase in budget spending directed towards investment has the greatest effect on the elimination of unemployment; then it is followed by an increase in social transfers and in the end by an increase in the "classic" budget expenditure. Regarding the effects of stabilization policy, in a situation of underemployment it is desirable to increase the money supply and thus stimulate economic activity, while in conditions of inflation it is expected to reduce the amount of money in circulation.

Key words: *fiscal policy, monetary policy, stabilization policy*

[67] University of Banja Luka, Faculty of Economics, Majke Jugovića 4, 78 000 Banja Luka, dalibor.tomas@efbl.org

[68] University of Banja Luka, Faculty of Economics, Majke Jugovića 4, 78 000 Banja Luka, jasmin.komic@efbl.org

[69] University of Banja Luka, Faculty of Economics, Majke Jugovića 4, 78 000 Banja Luka, darko.milunovic@efbl.org

1 Introduction

The subjects of this paper is theoretical analysis of the impact of stabilization policy on the elimination of fluctuations that occur in the commodity and money markets and in the labour market, with the aim of establishing the conditions of general equilibrium, i.e. to ensure the macroeconomic stability. It is important at the outset to emphasize that macroeconomic stability is not the aim, but only a necessary tool for the successful economic policy. Stabilization policies are usually conducted only with measures of fiscal and monetary policy, and for that reason in the further analysis we will investigate effects of the application of only these two types of enonomic policy.

The initial hypothesis, which further analysis should confirm, is that stabilization policy can contribute to the elimination, or at least mitigation of fluctuations which occur in the individual markets, and thus completely or at least partially provide conditions of general equilibrium, that is, create preconditions for a stable and uninterrupted economic growth.

From the macroeconomic point of view it is not enough only to establish that there is an imbalace. Much more important challenge for macroeconomists is to explain why there is a deviation from the steady state, and perhaps most importantly, what can be done, if anything can, to avoid or at least mitigate the observed disorders. Since we know that the fluctuations in commodity and financial market, as well as in the labour market are an inevitable phenomenon in any economy, and that the necessity of conducting stabilization policy in every country is almost self-evident, we have decided to try to answer this important question, and prove that the country is able to prevent, or at least mitigate the mentioned fluctuations using appropriate measures of fiscal and monetary policies.

Great complexity of the matter being investigated and its specificity in different economic circumastances, have led to the fact that there are a lot of different, often conflicting views which are the result of the previous research of many macroeconomists who have dealt with this interesting topic. In this paper we will try to summarize all research and perform a comprehensive macroeconomic model, which would be the proof of the necessity and expediency of stabilization policy, and on the other hand, a universal analytical tool for policymakers in general.

The work includes the analysis of the implementation of fiscal and monetary stabilization policy in the so-called model of closed economy.

2 Term and instruments of stabilization policy

“The policy of stabilization is understood as the aggregate demand management policies aimed at maintaining full employment and price stability. It is by its nature short-term. The main task of stabilization policy is to maintain a stable price level by maintaining aggregate demand at the level where it is approximately equal to the aggregate supply, at full employment“ (Babić, 2001, p. 398). The basic principle of the aggregate demand management policies is that the state can take steps to neutralize, or at least mitigate the consequences of actions of the private sector in order to reduce or eliminate the fluctuations that occur in aggregate demand (see details in Burda and Viploš, 2004, p. 256-257). More precise definition was given by Jakšić (2004, p. 318): “Stabilization policy is aimed at neutralizing adverse economic trends and establishing economic stability.”

From the above definition it is clear that the stabilization policy is actually counter-cyclical economic policy which is necessary to eliminate short term fluctuations in business cycles, or at least to mitigate the amplitude of these oscillations.

By introducing the assumption that the state can intervene in the economy, it is clear that we accept the views of Keynes theory, according to which markets are imperfect, and the state can and should pursue a policy of active intervention in the economy. As it has already been said that the stabilization policy is by its "nature" short-term, it is quite correct to adopt the Keynesian assumption that prices are rigid in the short-term and that the equilibrium of the gross domestic product will be determined by demand. Since demand generates cyclical fluctuations, the state is able to use fiscal and monetary policy to reduce and even completely neutralize cyclical economic disorders that occur as a result of actions of the private sector. By accepting the views of Keynes, we are aware of the fact that there are certain disadvantages of those assumptions. However, based on previous studies of many macroeconomists it has been confirmed that Keynesian model remains the most useful "rule of thumb" for the short-term analysis, and therefore we will use it in the further analysis (see details in Burda and Viploš, 2004, p. 233-240).

Regarding the instruments of stabilization policy, as previously said it usually uses the measures of fiscal and monetary policy. Measures of economic policy in the economic models are presented with instrumental variables, so the solution to the problem of economic policy in models comes down to determining the values of instrumental variables. Instruments of economic policy are in the hands of the state, and it can affect demand with fiscal policy, either with a change in their expenses or in revenues, and with monetary policy, with a change in the money supply, or even with a combination of instruments of fiscal and monetary policy.

2 Stabilization policy of closed economy

To be able to examine only the impact of measures of fiscal and monetary policy on the establishment of general equilibrium, the model that we use in this analysis will be based on the assumption that it is a closed economy. Closed economy is the theoretical case of the economy which does not trade, nor has credit relations with the rest of the world. Another interesting feature of this assumption is that the closed economy can be seen as a metaphor for the world economy.

In the analysis of the closed economy we will use one comprehensive graphic "tool", which besides IS-LM model, includes the labor market too. Also, all the evidence to be performed will be mathematically confirmed. It is therefore necessary at the outset to develop the initial form of a mathematical model, which will be used in further analysis of stabilization policy of the closed economy.

Since we will treat investment as a function of interest rate, that is, as an endogenous variable, the size of aggregate demand of the closed economy can be approximated by the following equation:

$$IS \equiv Y = C + I(r) + G \qquad (1)$$

where C presents personal consumption, $I(r)$ investment, which are a function of interest rates, and G the size of public (general) consumption.

In order to reach the initial form of macroeconomic model which will be used in further analysis, in addition to the relation (1), which illustrates the balance in the commodity market, it is necessary to introduce a condition of equilibrium in the money market:

$$LM \equiv \frac{M}{p} = k(Y) + l(r)$$

where $\frac{M}{p}$ presents real money supply, and $k(Y)$ transaction demand for money, which is a function of GDP, and $l(r)$ the speculative demand for money, which is a decreasing function of interest rate.

Since we will need in further analysis more analytical and detail form of the initial macroeconomic model, we believe that it is necessary, right at this point, to solve this problem too. Personal consumption (C) will be defined as a function of disposable income:[70]

$$C = \alpha + \beta Y^{d} \qquad (2)$$

where α represents autonomous consumption, which is independent of disposable income, where β indicates a marginal propensity to consumption, that is, tells which part of additional unit of GDP is spent on personal consumption ($\beta = \frac{dC}{dY} = C'$).

Function of tax represents the sum of lump-sum taxes (T_a), that is the taxes which do not depend on the size of GDP and the portion of the taxes (tY) which depend on the size of GDP:

$$T = T_a + tY \qquad (3)$$

Parameter t represents tax rate, and shows which part of GDP is deducted in the form of taxes ($t = \frac{dT}{dY}$).

Incorporating expression (3) in the function of disposable income, and the resulting equation in the expression (2), we can write the final form of our initial macroeconomic model as follows:

$$IS \equiv Y = \alpha + \beta Y - \beta T_a - \beta t Y + \beta T_{r_s} + I(r) + G = C + I(r) + G \qquad (4)$$

$$LM \equiv \frac{M}{p} = k(Y) + l(r) \qquad (5).$$

2.1 Fiscal stabilization policy and its instruments

"Fiscal stabilization policy is the use of stabilization policy, government revenues and expenses to address the level of economic activity and ensure macroeconomic stability (Jakšić, 2004, p. 317). The above clearly shows that the instruments of fiscal policy are government revenues and expenditures. Whether the state will lead to an expansionary or restrictive fiscal policy depends on the situation in a given economy, and goals that these measures seek to achieve. Expansionary fiscal policy implies an increase in government expenditures, with unchanged revenues or a reduction in government revenues with unchanged expenditures, while restrictive fiscal policy includes a reduction in government expenditures with unchanged revenues or an increase in government revenues with unchanged expenditures. As a result of the previously said it

[70] Income which belongs to the population, after tax deduction (T), increased by the size of social transfers (T_{r_s}), is called the disposable income ($Y^{d} = Y - T + T_{r_s}$).

follows that economic activity can be stimulated by creating a budget deficit, while in the case of excessive demand it is desirable to strive for a budget surplus.

2.1.1 The change in budget spending

It is necessary at the outset to emphasize that the budget spending represents procurement of goods and services, and should be distinguished from the total budget expenditures, which include transfer payments too. More precisely, budget spending represents budget expenditures excluding social transfers which are, relatively speaking, a large part of the total budget expenditures. Given that social transfers, more precisely, present redistribution of income within a society, and thus serve to reduce the available budget revenues, most authors observe them in the context of the analysis relating to the change in budget revenues; therefore in this paper such concept will be applied.

Since so far very few authors have performed an analysis of the impact of individual components of budget spending on establishing general equilibrium, in this paper we will try to deal with this problem and thus show how state is able to affect the volume of aggregate demand. Through this analysis, which will be explained in more detail later, we will show which changes in budget spending are active and which are passive. In other words, we will come to the conclusion what kinds of budget spending the state can use to perform the interventions and exert more influence on the general economic trends. These are certainly not the forms of budget spending that have almost unchanged relative share in the longer period of time, nor budget spending, whose share in time even decreases.

At this point we will examine only how the change in the total budget spending affects the general economic equilibrium, and so determine whether the country is able by changing the budget spending to establish the disturbed balance in the commodity market, and consequently, the general economic equilibrium.

First we will examine how IS-LM model (see details in Jakšić, 2004, p. 149-158) reacts to the changes in budget spending, and then apply the obtained results in the model which in addition to commodity and financial market covers labor market too, that is, determine what consequences for the general economic equilibrium the change in budget spending has. In doing so, budget spending, which we will indicate with G, will be exogenous variable, and gross domestic product (Y) and interest rate (r) will be endogenous variable. Since we start from the assumption that our prices are rigid in the short-term, because the stabilization policy is short-term, it follows that our level of prices (p), is also exogenous variable.

As it can be seen in Figure 1, the increase, that is the reduction in budget spending with unchanged budget revenues, affects the movement of the IS curve to the right, that is to the left, while the LM curve remains unchanged, that is, the change in budget spending has no impact on the LM curve.

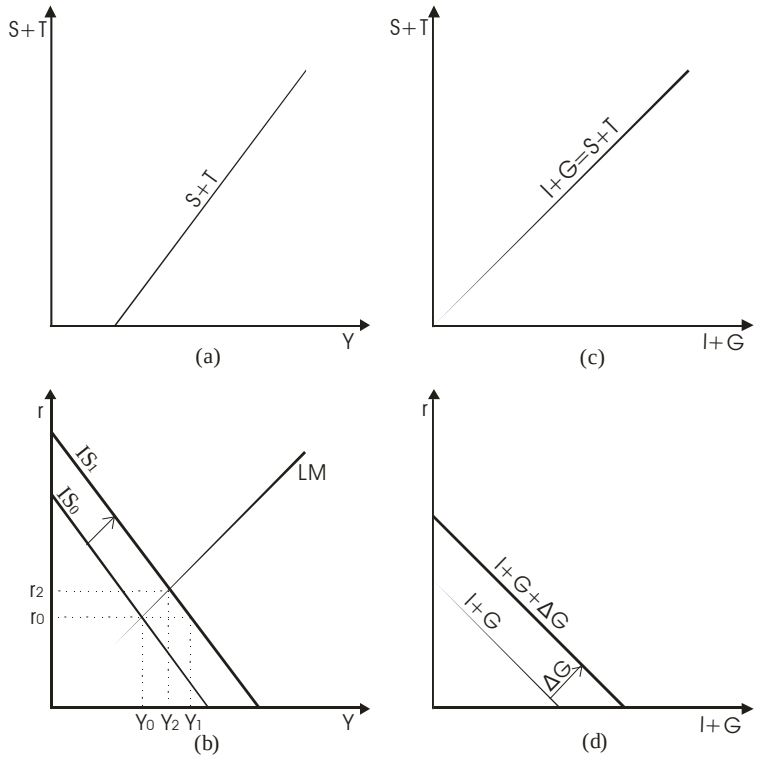


Figure 1 The change in budget spending and the impact on the commodity and financial market

The increase in budget spending (G), through the multiplier process ($\frac{\Delta Y}{\Delta G}$), which will be discussed later in the paper, affects the growth of real GDP, assuming of course that there are available sources. If the interest rate remained unchanged, at the level r_0, as well as the level of investment, equilibrium product would rise from Y_0 to Y_1. However, since the interest rate is treated as an endogenous variable, and therefore the investments (I), which are the functions of the interest rate, GDP will grow "only" from Y_0 to Y_2, whereas the interest rate will increase from r_0 to r_2.

One of the reasons why the increase in budget spending affects the increase in interest rate is that the increase in budget spending with unchanged budget revenues leads to the creation of budget deficit. In order to finance it, the state increases the supply of bonds. This affects the reduction in bond prices, which naturally leads to an increase in interest rates. Another way is that the increase in GDP affects the increase in transaction demand for money ($k(Y)$), and that with a fixed money supply ($\frac{M}{p}$) leads to an increase in interest rate (r). Since the complete analysis is based on the assumption of short-term period, it follows that the second way of increasing budget spending explains our problem a lot better.

Furthermore, the rise in interest rates has an impact on reducing investment. Because of this the increase in budget spending by ΔG, does not increase GDP from Y_0 to Y_1, because now the reduction in investment, again through the multiplier, impacts the decrease in GDP from Y_1 to Y_2, and an increase in interest rate from r_0 to r_2.

It is important to note that this increase in budget spending, with unchanged budget revenues, by reducing investment, actually redistributes gross domestic product between budget spending and investment, of course in favor of budget spending. This effect is often called the crowding-out effect. However, reducing the investment is smaller than the increase in budget spending, so the sum $I+G$ is larger now. Also, the GDP growth, which is a consequence of the increase in budget spending, with unchanged budget revenues, has affected the increase in disposable income, assuming constant marginal propensity ($\beta = \frac{dC}{dY} = C^{'}$), and personal spending.

Now we will apply the obtained results to the model which, in addition to the commodity and financial market, includes the labor market too (see details in Burda and Viploš, 2004, p. 229-240) and in this way come to the conclusion whether the state is able to establish the disturbed general economic equilibrium by changing the budget spending. There are two reasons why IS-LM model will not be sufficient to establish general economic equilibrium. Firstly, we must determine the level of prices, or at least take it into consideration, and secondly, so far we have not mentioned the labor market, an important element, closely linked to the aggregate supply of gross domestic product.

The graph we are going to use shows us how to find the general equilibrium, i.e. the point at which all three markets – commodity, financial and labor – are simultaneously in equilibrium. At the panels (a) and (b), on the left side of the Figure, the supply is described, i.e. how the equilibrium determines the present GDP on the labor market. The upper central panel (c) shows IS and LM curves and their cross section determines the aggregate demand. Commodity supply (Y_1) is shown at the panel (c) with a vertical line S, and we obtained it by transferring the level of GDP from the lower left panel (b) with the line 45° from the panel (d). The upper right panel (e) shows the equilibrium conditions in the financial market and connects interest rate with registered real money supply. Finally, when the nominal cash fund is at the constant level, the level of prices and real cash fund move inversely to each other, and this relation is shown in the lower right panel (f), in Figure 2.

If we start from the assumption that prices are not perfectly flexible, but that they are constant in the short-term, and that the equilibrium in the commodity and financial market leads to the lower level of GDP and lower interest rates, which are the result of insufficient demand, from the level determined by the supply, when the labor market is in equilibrium, it is necessary to examine whether the state is able to establish simultaneous equilibrium in all three markets by increasing budget spending. Previous assumptions are summarized in Figure 2. It should also be noted that with rigid prices and given nominal money supply M, the real cash fund $\frac{M}{p}$, and hence LM curve, can not change the position. Therefore, it is the IS curve that will determine the overall equilibrium, when prices are rigid.

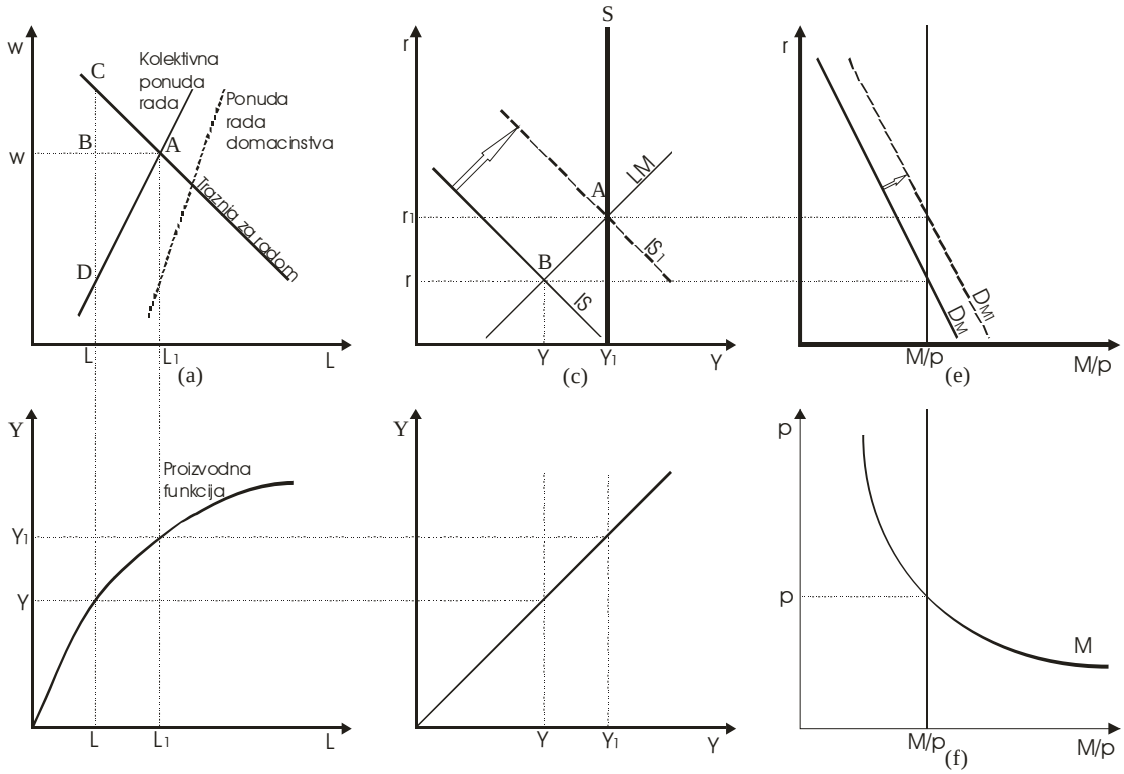


Figure 2 The change in budget spending and overall economic equilibrium

In this case, GDP Y_1, which corresponds to point A on the panels (a) and (b), and which is defined by the aggregate supply, will be larger than the one which is defined by the demand (Y). If enterprises produce less, they will need fewer workers, so the employment will be at the level L, below the level L_1, as shown in panel (a). Given that the prices, and hence the profits, are rigid, there is unemployment, since the supply of labor exceeds the demand for labor in the distance AB.

If the state now increases the budget spending by ΔG, we have seen that there is a shift of IS curve to the right, i.e. equilibrium GDP and interest rate are increased. Perhaps at first glance it seems that a lot of luck is needed to establish in this case the general equilibrium. However, it is very simple, based on the budget spending multiplier to calculate how much it is necessary to increase the budget spending ΔG, in order to increase the social product by ΔY, i.e. to eliminate unemployment ΔL. We will show the proof and mathematical confirmation of this view in the part where we discuss the budget spending multiplier.

The increase in GDP, caused by the increase in the budget spending leads to an increase in demand for transaction money $k(Y)$, which in the unchanged real supply results in the growth in the price of money, i.e. interest rate. “When the price level is fixed, it is the demand for money that will adjust to the money supply. This will lead to changes in the interest rate and output.” (Burda and Viploš, 2004, p. 240).

As it can be seen from Figure 2, by increasing the budget spending, it is possible to achieve equilibrium in the commodity and financial market, that is to rise GDP and interest rate to the equilibrium level, and thereby eliminate unemployment, and establish the general economic equilibrium. Since this is a short-term period, it is necessary to emphasize that the labor market takes much more time than any other market to “return“ to the equilibrium state. Therefore, it is still possible to have a certain level of unemployment, at least in the short-term, as a feature of general equilibrium.

Since we have shown how the change in the budget spending affects GDP and interest rate, and hence investments, we believe that it is necessary at this point to carry out a mathematical confirmation of the preceding views. We will start with the initial form of the macroeconomic model, which we have already thoroughly developed at the begining of this paper:

$$IS \equiv Y = \alpha + \beta Y - \beta T_a - \beta t Y + \beta T_{r_s} + I(r) + G = C + I(r) + G$$

$$LM \equiv \frac{M}{p} = k(Y) + l(r).$$

In the graphic analysis we have seen that an increase in the budget spending dG, affects the increase in GDP dY, as well as the increase in interest rate dr, which implies the reduction in investments. The GDP growth can now be presented with the following total differential:

$$dY = \beta dY - \beta t dY + I' dr + dG = \beta(dY - tdY) + I' dr + dG$$

from where it follows:

$$dY = \beta(1-t)dY + I' dr + dG \qquad (6).$$

By differentiating totally LM curve and keeping the money supply constant ($d\frac{M}{p} = 0$), we have:

$$l' dr + k' dY = 0,$$

from where it immediately follows:

$$dr = -\frac{k'}{l'} dY \qquad (7).$$

Expression (7) shows that GDP growth by dY, which is a result of the increase in the budget spending by dG, causes an increase in the interest rate too by $-\frac{k'}{l'}$, along LM curve, in order to preserve the equilibrium in the financial market. If we put the expression (7) into (6), we have:

$$dY = \beta(1-t)dY + I'\left(-\frac{k'}{l'}\right)dY + dG$$

that is:

$$dY = \frac{1}{1 - \beta(1-t) + I'\frac{k'}{l'}} dG,$$

and we get the budget spending multiplier:

$$\frac{dY}{dG} = \frac{1}{1-\beta(1-t)+I'\frac{k'}{l'}} \qquad (8)$$

showing what is the GDP growth, which is the result of the increase in budget spending.

Expression (7) is positive, and presents the slope of LM curve. We have already said that it shows the need to increase interest rates, which results from the GDP growth by dY, in order to preserve the equilibrium in the financial market. Since I' shows a decrease in investments, which results from a unit increase in interest rates, the expression $I'\frac{k'}{l'}$ indicates a decrease in investment, which is a subject to an increase in GDP by dY and the interest rate by dr. That is why the budget spending multiplier, which treats investments as a function of the interest rate, that is as an endogenous variable, is lower than the budget spending multiplier, which treats the interest rate as an exogenous variable.

Now it is clear that this evidence completely corresponds to the graph in Figures 1 and 2. In other words, an increase in budget spending by ΔG, does not increase GDP from Y_0 to Y_1, because the decrease in investments, caused by the increase in the interest rates by dr, again through multiplier, impacts the decrease in GDP from Y_1 to Y_2, with the simultaneous increase in the interest rate from r_0 to r_2 (Figure 1).

In the previous section we were "obliged" to prove that it is possible to calculate the level of the increase in the budget spending which will lead to the steady increase in GDP, and thus eliminate unemployment. If we write the budget spending multiplier in another way, given by the expression (8), we obtain:

$$dG = \frac{dY}{\frac{1}{1-\beta(1-t)+I'\frac{k'}{l'}}} \qquad (9).$$

This means that the needed increase in the budget spending, necessary to increase GDP and eliminate unemployment, equals the difference between the "supplied" and "demanded" GDP, divided by the multiplier.

Economic costs or economic transfers, as sometimes called, are one of the most important components of budget spending. Their importance is reflected in the fact that quantitatively speaking they have a large share in total budget expenditure, and on the other hand, qualitatively speaking they have a number of specific features that separate them from other types of budget expenditure. Economic transfers usually include the repayment of state debts, removal of market imperfections and investment spending of the country. Quantitatively speaking relatively large share of underdeveloped countries, unfortunately, includes paying off state debts, while in developed countries, quantitatively the most important component is the investment spending. Also, the state activity on the elimination of market imperfections is more significant in developed than in underdeveloped countries. Therefore, most authors investigating less developed countries do not separate economic costs from budget spending, while those, researching more developed countries, see investment spending as an integral part of the total investment.

Quantitative structure of economic costs provides their qualitative difference. It is clear that government expenditures which represent debt payment, have no impact on real economic flows, while the removal of market imperfections, particularly investment spending has a great, multiplication effect on real economic trends.

Since we believe that the investment spending of the country, for a number of benefits it brings, is one of the most important components of total budget expenditures, we will prove mathematically what its importance for the overall economic developments in a country is. It is this evidence, we believe that will be sufficient to confirm that investment spending is, we can freely say, "the most active" fiscal policy instrument.

So far we have only looked at investment as a function of interest rates, that is:

$$I = f(r) \qquad (10).$$

However, according to the accelerator theory (see details in Babić, 2001, p. 277), if you introduce a constant capital coefficient, an increase in production will also influence the change in the required level of capital, which will result in an increase in investment. Accordingly, investments are also a function of GDP growth:

$$I = f(\Delta Y) \qquad (11)$$

If we take into account both interdependences, (10) and (11), we have:

$$I = f(r, Y) \qquad (12)$$

provided that $\frac{\partial I}{\partial r} < 0$ and $\frac{\partial I}{\partial Y} > 0$, where $\frac{\partial I}{\partial Y} > 0$, represents marginal propensity to GDP investment. In other words, it shows how much of each additional unit of GDP is reinvested. If we expand now our initial macroeconomic model, given by the relations (4) and (5), with a condition (12), we obtain:

$$IS \equiv Y = C + I(r, Y) + G = \alpha + \beta(Y - T_a - tY + T_{r_s}) + I(r, Y) + G \qquad (13)$$

$$LM \equiv \frac{M}{p} = k(Y) + l(r) \qquad (14).$$

The increase in GDP was due to an increase in budget spending, aimed at investing, so now we can present the following total differential:

$$dY = \beta dY - \beta t dY + I_r' dr + I_Y' dY + dG = \beta(1-t)dY + I_r' dr + I_Y' dY + dG \qquad (15).$$

Incorporating further relation (7), which we obtained by differentiating totally LM curve, keeping the money supply constant ($d\frac{M}{p} = 0$), in (15), we have:

$$dY - \beta(1-t)dY - I_r'\left(-\frac{k'}{l'}\right)dY - I_Y' dY = dG$$

that is:

$$dY = \frac{1}{1-\beta(1-t)+I_r^{'}\frac{k^{'}}{l^{'}}-I_Y^{'}}dG\,.$$

From the above we get the budget spending multiplier:

$$\frac{dY}{dG} = \frac{1}{1-\beta(1-t)+I_r^{'}\frac{k^{'}}{l^{'}}-I_Y^{'}} \qquad (16).$$

Comparing multipliers (8) and (16), it is obvious that the budget multiplier, which is the result of an increase in investment spending of the state, (16), is higher than the multiplier which is the result of the increase in "classic" budget expenditure, (8), because its denominator is reduced by $I_Y^{'} = \frac{\partial I}{\partial Y} > 0$, which presents marginal propensity to GDP investment.

Therefore, an increase in government spending, which will be used for investment, has the greatest multiplicative effect on GDP, thus investment spending of the state can be considered "the most active" fiscal policy instrument.

2.1.2 The change in budget revenues

As we said earlier, economic activity can be stimulated by creating a budget deficit, which occurs as a result of an increase in budget expenditures with the same revenues, or a decrease in budget revenues with unchanged expenditures. Budget revenues change with the change in net taxes. Change in net taxes may result from the change in lump (autonomous) taxes (T_a), taxes that are a function of GDP (tY) or changing social transfers (T_{r_s}).We will examine now how changes in each of these instrumental variables affect the state of the economy.

Changes in lump-sum taxes (T_a) lead to changes in disposable revenue. Furthermore, changes in disposable revenue result in changes in personal spending and saving, which leads to changes in gross domestic product.

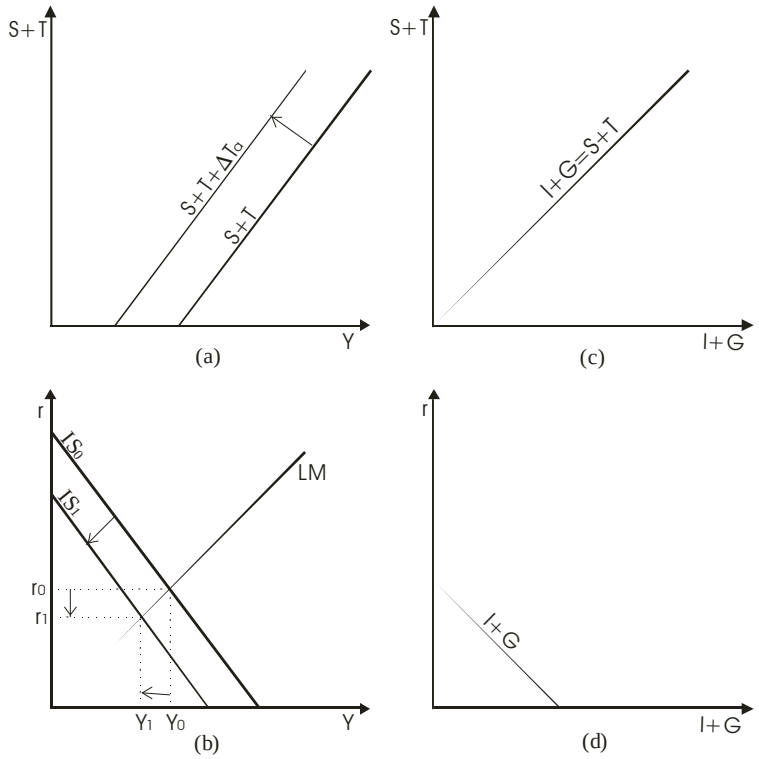


Figure 3 The change in lump-sum taxes and the impact on the commodity and financial market

Also, as we can see in Figure 3, panel (a), the increase in lump-sum taxes by ΔT_a leads to a parallel shift of a curve $S+T$ to $S+T+\Delta T_a$, which results in a shift in the IS curve to the left. With unchanged LM curve, it is obvious that there is also a reduction in GDP from Y_0 to Y_1, and in the interest rate from r_0 to r_1.

We will try to confirm mathematically the previous conclusion, because in this way we can be sure of the correctness of the given recommendations for conducting fiscal stabilization policy. We will again start from the initial model of the given relations (4) and (5):

$$IS \equiv Y = \alpha + \beta\left(Y - T_a - tY + T_{r_s}\right) + I(r) + G$$

$$LM \equiv \frac{M}{p} = k(Y) + l(r).$$

We will only discuss how changes in lump-sum taxes impact GDP, while considering variables that are not significant for the analysis at this point constant. Also, the change in the money supply will be considered unchanged, because there is no shift of LM curve. These assumptions can be illustrated by the following total differential:

$$dY = \beta\left(dY - dT_a - tdY\right) + I^{'}dr \qquad (17)$$

Using the relation (7), which follows from the above assumptions about LM curve, and incorporating it into (17), we get:

$$dY = \beta dY - \beta dT_a - \beta t dY - \frac{k^{'}}{l^{'}} I^{'} dY .$$

Then it follows:

$$dY - \beta dY + \beta t dY + \frac{k'}{l'} I' dY = -\beta dT_a,$$

so we have:

$$dY\left(1 - \beta + \beta t + \frac{k'}{l'} I'\right) = -\beta dT_a.$$

Finally, we obtain:

$$\frac{dY}{dT_a} = \frac{-\beta}{1 - \beta + \beta t + \frac{k'}{l'} I'} \qquad (18).$$

It is obvious that the expression (18) is negative, which means that an increase in lump-sum taxes affects the GDP reduction and vice versa. From that, very clearly, recommendations for the conduct of fiscal stabilization policy follow. Also, the greater the marginal propensity is, the greater the reduction in GDP is, caused by an increase in lump-sum taxes.

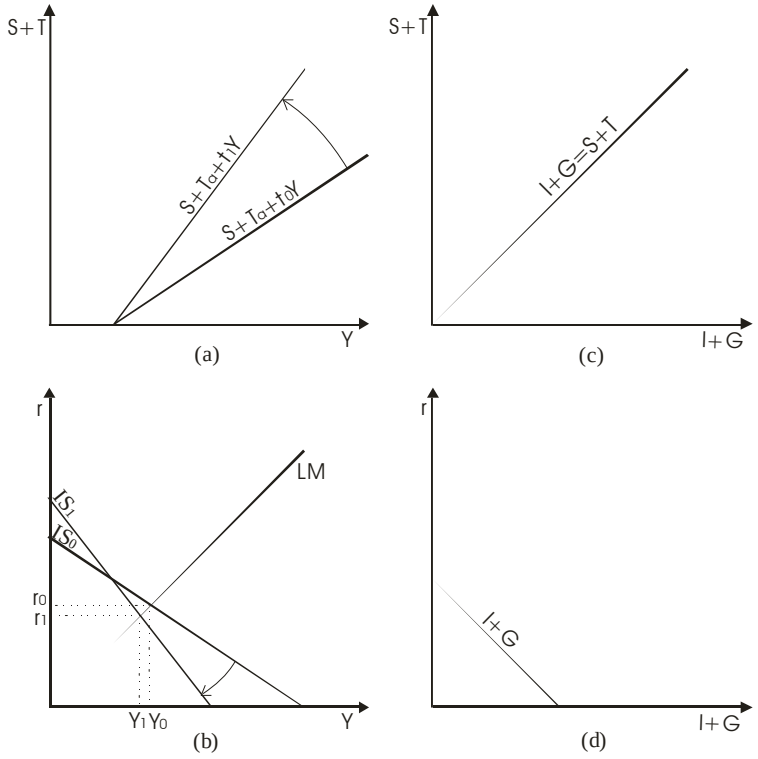


Figure 4 The change in tax rate and the impact on the commodity and financial market

The change in tax rate affects the part of the tax which depends on GDP. That change will affect the change in disposable income, which will lead to changes in personal spending and savings, and through that, to the change in GDP. Also, as we can see in Figure 4, panel (a), the increase in the tax rate from t_0 to t_1 $(t_1 > t_0)$ has led to an increase in the marginal propensity to save from $1 - \beta + \beta t_0$ to $1 - \beta + \beta t_1$. This rotated the curve of savings in the direction counter-

clockwise from $S+T_a+t_0Y$ to $S+T_a+t_1Y$. As a result of all this, there is a change in IS curve too, followed by a decrease in GDP from Y_0 to Y_1, and a decrease in interest rate, from r_0 to r_1.

Again we will make a mathematical confirmation of the preceding views to make our conclusions as credible as possible. The initial form of the model was again given by the relations (4) and (5). Now we will analyze how changes in tax rate affect the GDP, and consider the variables that are not significant for the analysis at this point, constant, as we have already done. Also, the change in the money supply will be considered unchanged, because there is no shift of LM curve. These assumptions are illustrated by the following total differential:

$$dY = \beta\left(dY - tdY - Ydt\right) + I^{'}dr \qquad (19)$$

Using again the relation (7), and incorporating it now in (19), we obtain:

$$dY = \beta dY - \beta tdY - \beta Ydt - \frac{k^{'}}{l^{'}} I^{'}dY .$$

Next, it follows:

$$dY - \beta dY + \beta tdY + \frac{k^{'}}{l^{'}} I^{'}dY = -\beta Ydt ,$$

so we have:

$$dY\left(1-\beta+\beta t+\frac{k^{'}}{l^{'}}I^{'}\right) = -\beta Ydt .$$

Finally we obtain:

$$\frac{dY}{dt} = \frac{-\beta}{1-\beta+\beta t+\frac{k^{'}}{l^{'}}I^{'}} \cdot Y \qquad (20).$$

Since the expression (20) is negative, it follows that increasing the tax rate affects decreasing the GDP, and vice versa. It is also important to notice that the greater the GDP and the marginal propensity to spend are, the greater the influence is. This, undoubtedly, provides recommendations for the conduct of the fiscal stabilization policy.

Social transfers are, relatively speaking, a large part of total budget expenditures, and thus have great importance in any economy, and greatly affect the general economic trends. In some countries this is by far the most important single item of the budget. Given the quantity of social transfers it is clear that the state has a very powerful “tool” that may significantly affect the general economic trends. Therefore it is clear that the change in social transfers, of course, in addition to changes in investment spending of the state, is one of the most important instruments of fiscal stabilization policy. Below, we will first graphically and then through mathematical macroeconomic model, examine how changes in social transfers affect the general economic trends.

Changes in social transfers (T_{r_s}) also lead to changes in disposable income, followed by changes in personal spending and savings, which results in changes in GDP. Also, as we can see

in Figure 5, panel (a), the increase in social transfers by ΔT_{r_s} leads to a parallel shift of the curve $S+T$ to $S+T-\Delta T_{r_s}$, which results in the shift of the IS curve to the right. With unchanged curve LM, it is obvious that there is also an increase in GDP from Y_0 to Y_1, and in the interest rate from r_0 to r_1.

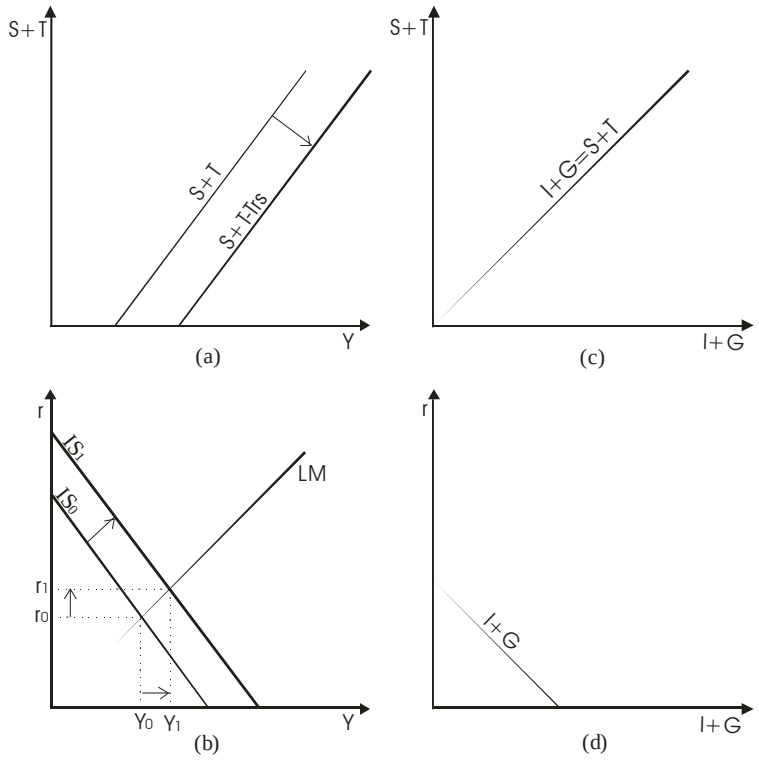


Figure 5 The change in social transfers and the impact on the commodity and financial market

For the mathematical confirmation of the views, we will again use the initial form of the model, given by the relations (4) and (5). Now we will analyze how changes in social transfers affect the GDP, and consider the variables that are not significant for the analysis at this point, constant. Also, the change in the money supply will be considered unchanged, because there is no shift of LM curve. These assumptions are illustrated by the following total differential:

$$dY = \beta\left(dY - tdY + dT_{r_s}\right) + I^{'}dr \qquad (21)$$

Using the relation (7), which follows from the above assumptions about LM curve, and incorporating it into (21), we have:

$$dY = \beta dY - \beta tdY + \beta dT_{r_s} - \frac{k^{'}}{l^{'}} I^{'}dY .$$

Next, we obtain:

$$dY - \beta dY + \beta tdY + \frac{k^{'}}{l^{'}} I^{'}dY = \beta dT_{r_s} ,$$

whence it follows:

$$dY\left(1-\beta+\beta t+\frac{k^{'}}{l^{'}}I^{'}\right)=\beta dT_{r_s}\ .$$

And finally, we have:

$$\frac{dY}{dT_{r_s}}=\frac{\beta}{1-\beta+\beta t+\frac{k^{'}}{l^{'}}I^{'}} \qquad (22).$$

From (22) it follows that an increase in social transfers affects an increase in GDP, whereas a decrease in social transfers leads to a decrease in GDP. It is also important to notice that the greater the marginal propensity to spend is, the greater the impact is.

2.1.3 The choice of fiscal policy instruments

The choice of fiscal policy instruments in the first place depends on the general economic trends, that is, from the current state of the economy. Since it is much common situation that there is a state of underemployment, we will examine this case in our analysis. We have already said that economic activity can be stimulated by creating budget deficit, but we have not decided yet whether it is better to cause the deficit by increasing budget spending with unchanged income, or by decreasing budget revenues keeping expenditures constant.

When we analyzed how each instrument of fiscal policy affect GDP, we made the final conclusions based on the multipliers, which included only a change in the reporting instrument of fiscal policy. Therefore, in order to come to the conclusion what instrument has the "strongest" effect on stimulating economic activity, it is enough to compare the multiplier of budget spending, on the one hand, with multipliers that affect the change in budget revenues, on the other hand.

If we compare the budget spending multiplier (8), given by $\frac{dY}{dG}=\frac{1}{1-\beta(1-t)+I^{'}\frac{k^{'}}{l^{'}}}$, and multiplier of lump-sum taxes (18), $\frac{dY}{dT_a}=\frac{-\beta}{1-\beta+\beta t+\frac{k^{'}}{l^{'}}I^{'}}$, of course in absolute terms, it is clear that the budget spending multiplier is larger, because $\beta<1$, that is, an increase in budget expenditures has a greater multiplicative effect on stimulating economic activity, rather than a decrease in lump-sum taxes.

Similarly, comparing again budget spending multiplier (8), but now with the expression (20), $\frac{dY}{dt}=\frac{-\beta}{1-\beta+\beta t+\frac{k^{'}}{l^{'}}I^{'}}\cdot Y$, which explains how changes in tax rates affect GDP, we come to the same conclusion as in the previous case.

From the previous two statements it follows that the increase in budget spending has a greater multiplicative effect on the increase in economic activity, rather than the influence of the reduction in budget revenues, regardless of whether it is caused by this reduction in lump-sum taxes or reducing tax rates.

Since the increase in budget spending and the increase in social transfers affect the GDP growth, we think it is interesting to come to the conclusion what instrument of fiscal policy has a greater multiplicative effect on the elimination of unemployment. If we now compare the budget spending multiplier (8), with the multiplier of social transfers, given by the expression (22), $\frac{dY}{dT_{r_s}} = \frac{\beta}{1-\beta+\beta t+\frac{k'}{l'}I'}$, it is obvious that the expression (8) is larger than the expression (22), because $\beta < 1$, that is, in a situation of underemployment it is better to increase budget spending, rather than social transfers.

2.1.4 The effectiveness of fiscal policy

Based on the budget spending multiplier (8), as well as Figure 6, it can be seen that the efficiency of fiscal policy depends on the size of the difference between real GDP and GDP in a situation of full employment.

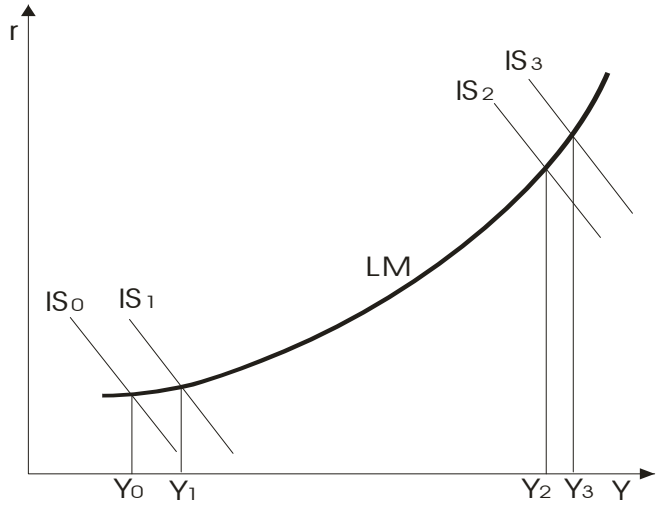


Figure 6 The efficiency of fiscal policy

At the low level of GDP (Y_0), LM curve is almost horizontal, because l' is very large, so $I'\frac{k'}{l'}$ is very close to zero, and thus the budget spending multiplier is relatively high. However, if the stimulation of economic activity is carried out at the level of GDP Y_2, LM curve is nearly vertical, and the value of its slope $I'\frac{k'}{l'}$ is very large, so the multiplier (8) is very low and tends to zero, as LM curve becomes vertical.

Therefore, the size of the budget spending multiplier depends on the slope of LM curve at the point of initial “equilibrium”. In other words, the increase in budget spending will result in a large increase in GDP, in a situation of high unemployment and low interest rates. However, the same increase in budget spending at the level of GDP, which is very close to the state of full employment, will have little effect on GDP, but will result in a relatively large increase in interest rates, which will lead to a sharp reduction in investment, which is almost equal to the increase in budget spending.

Such difference in the efficiency of fiscal policy stem from the fact that at the low level of GDP and low interest rate, with fixed money supply, a relatively large portion of the money is used for speculative purposes. With such a low interest rate, speculative demand for money is very elastic, so even a small increase in interest rate affects a large reduction in speculative demand for money, which releases a lot of money for the transaction demand, that is, for financing business transactions. At high interest rate speculative demand is very inelastic, and even relatively large increase in interest rates cannot have a significant effect on the reduction in speculative demand, in order to increase the possibility of financing the increased business transactions.

We conclude that the efficiency of fiscal policy depends on the current state of the economy. Therefore, first, it is necessary to analyze each economy, and based on this analysis choose appropriate instruments and measures of fiscal policy.

2.2 Monetary stabilization policy and its instruments

"Monetary policy is a very important segment of economic policy which should, throught its instruments, regulate the amount of money in circulation and provide their positive effects on the overall real economic trends" (Dušanić, 2001, p. 81). Monetary policy can achieve this positive effect if it is properly managed and coordinated with other aspects of economic policy. Good compliance of measures of monetary and fiscal policy is of particular importance. Proper management means application of effective instruments of monetary regulation and timely measures, due to the time delay in the operation of monetary policy.

The above clearly shows that the basic instrument of monetary regulation is a change in the money supply because the main task is the regulation of the required amount of money, over its creation and withdrawal, in order to create optimal monetary conditions for the smooth running of the process of social reproduction.

It is important to note that "monetary stabilization policy can be restrictive and expansive" (Jakšić, 2004, p. 317). Restrictive monetary policy involves reducing the money supply, while expansive monetary policy represents an increase of money in circulation.

2.2.1 The change in the money supply and monetary regulation instruments

Monetary regulation represents a series of measures that the central bank uses to influence changes in the money supply, that is, the amount of money in circulation and liquidity of the macro system as a whole. To what extend the central bank will be able to regulate the amount of money in circulation depends on its ability to regulate reserve money, and to anticipate changes in the monetary multiplier. Instruments that allow the control of reserve money are the central bank loans to commercial banks and open market operations. From the parameters that affect the size of the monetary multiplier, the central bank can only through the regulation of the required reserves, affect the size of required reserves which commercial banks hold with the central bank.

In addition, the central bank is forced sometimes, when the mentioned instruments are not effective, to take direct administrative measures of monetary regulation, which are, mainly, focused on the regulation of the bank credit rating and the regulation of interest rates.

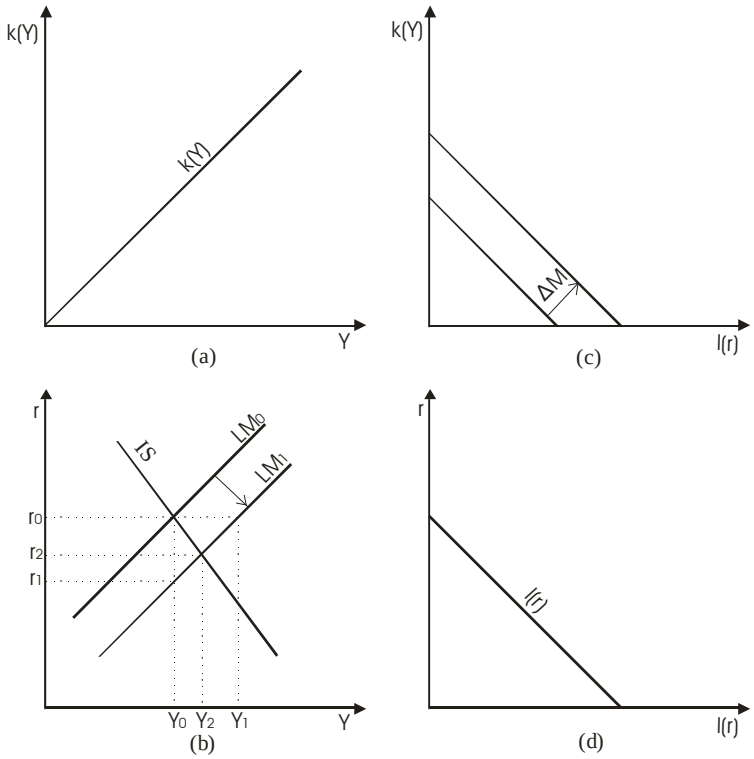


Figure 7 The change in the money supply and the impact on the commodity and financial market

Now we will examine how changes in the money supply affect the general economic equilibrium, and determine whether the state is able by changing the quantity of money in circulation to regain the balance in the financial market, and consequently, the general economic equilibrium. First we will analyze how IS-LM model reacts to changes in the money supply, and then apply the obtained results to the model which in addition to the commodity and financial market includes the labor market too, that is determine what consequences for the general economic equilibrium the change in the quantity of money in circulation has.

The change of monetary policy affects the change in LM curve, while IS curve remains unchanged. As we can see in Figure 7 the increase in the money supply by ΔM shifts LM curve to the right, which has the consequence of reducing the interest rate from r_0 to r_1, at the level of GDP Y_0, or increasing production from Y_0 to Y_1, if the interest rate is at the level r_0. However, the increase in the money supply decreases the interest rate. That decline in the interest rate impacts the rise in investment, which through the multiplier process has the consequence of increasing GDP. Consequently, GDP rises, and this causes an increase in transaction demand for money, which now affects the increase in interest rates. In the end, the economy comes to the point (Y_2, r_2), where there is equilibrium on both commodity and financial market. It is important to notice that monetary policy has completely different effect on the change in the structure of GDP consumption from fiscal policy, even though both have the same effects on the GDP growth.

Now we will apply the obtained results to the model which, in addition to the commodity and financial market, includes the labor market, and in this way come to the conclusion whether the state is able to establish the disturbed general economic equilibrium by changing the money supply.

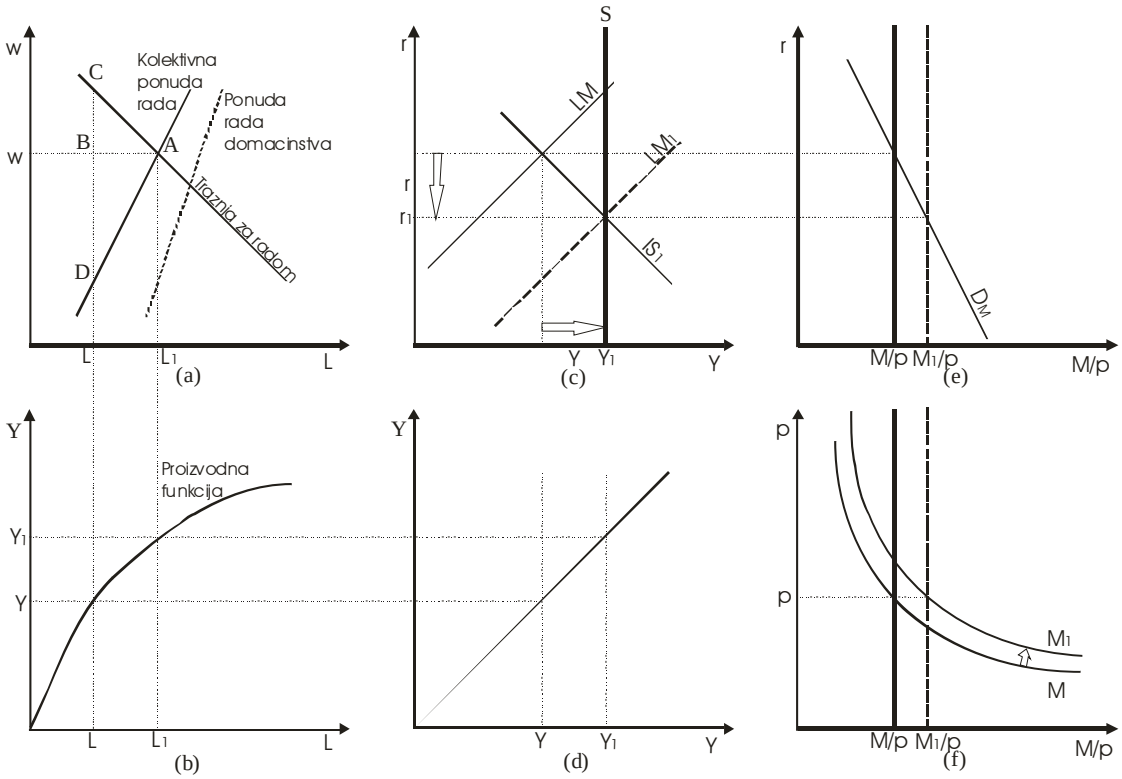


Figure 8 The change in the money supply and the general economic equilibrium

If we start from the assumption that prices are not perfectly flexible, but constant in the short-term, and that the balance in the commodity and financial market leads to the lower level of GDP and higher interest rates, from the level determined by the supply, when the labor market is in balance, all as a result of imbalance in the financial market, it is necessary to examine whether the state is able by increasing the money supply, to establish the simultaneous equilibrium in all three markets. The foregoing assumptions are shown in Figure 8.

As we already know, the increase in the money supply affects the shift of LM curve to the left, which leads, with unchanged IS curve, to the reduction in the interest rate from r to r_1 and the increase in GDP from Y to Y_1 (panel (c)). Also, the increase in the quantity of money in circulation shifts the curve M to M_1 (panel (f)), which assuming the rigid prices, affects the increase in the real money supply from $\frac{M}{p}$ to $\frac{M_1}{p}$. As it can be seen from Figure 8, by increasing the money supply, it is possible to achieve the equilibrium in the commodity and financial market, that is, to bring GDP and the interest rate to the equilibrium level, and thereby eliminate unemployment, and establish the general economic equilibrium.

Since we have shown that an increase in the money supply has a consequence of increasing GDP and decreasing the interest rate, and therefore increasing investment, we believe that it is necessary to carry out the mathematical interpretation of previous conclusions. Again, we start from the initial form of macroeconomic model, which we performed at the beginning of this paper:

$$IS \equiv Y = \alpha + \beta Y - \beta T_a - \beta t Y + \beta T_{r_s} + I(r) + G = C + I(r) + G$$

$$LM \equiv \frac{M}{p} = k(Y) + l(r).$$

Total differential of IS curve, which includes previous assumptions, and considers the budget spending constant, is given by the following expression:

$$dY = \beta dY - \beta t dY + I^{'} dr = \beta\left(dY - tdY\right) + I^{'} dr$$

from which it follows:

$$dY = \beta\left(1-t\right)dY + I^{'} dr \qquad (23).$$

However, now the money supply will not be considered constant, but we will assume that prices do not change. Then we have $\frac{dM}{p} = dm$, that is, the change in the nominal money supply with the same prices is the same as the change in the real money supply. Based on this assumption and with the indication that $\frac{M}{p} = m$, LM curve can be written as:

$$LM \equiv \frac{M}{p} = m = k\left(Y\right) + l\left(r\right) \qquad (24).$$

Differentiating now LM curve (24), we have:

$$\frac{dM}{p} = dm = l^{'} dr + k^{'} dY ,$$

From which it immediately follows:

$$dr = \frac{dm}{l^{'}} - \frac{k^{'}}{l^{'}} dY \qquad (25).$$

By incorporating the expression (25) into (23) we obtain:

$$dY = \beta\left(1-t\right)dY + \frac{I^{'}}{l^{'}} dm - I^{'} \frac{k^{'}}{l^{'}} dY$$

that is, after arranging:

$$\frac{dY}{dm} = \frac{\frac{I^{'}}{l^{'}}}{1 - \beta\left(1-t\right) + I^{'} \frac{k^{'}}{l^{'}}} \qquad (26).$$

It is obvious that the money supply multiplier has the same denominator as the fiscal policy multiplier. However, we shall now explain what the numerator shows. If we make the derivation of the LM curve (24), we obtain $\frac{dm}{dr} = l^{'}$, that is, $\frac{dr}{dm} = \frac{1}{l^{'}}$. Thus, $\frac{1}{l^{'}}$ shows how much the interest rate will drop, if the money supply increases by one unit. Since $I^{'}$ indicates how much investments increase, if the interest rate decreases by the unit, the numerator of the expression (26) explains how much investments will increase as a result of the reduction in interest rates, caused by the increase in the money supply by dm.

Since both $I^{'}$ and $l^{'}$ are negative, we already know that the denominator of the expression (26) is positive, it follows that the entire expression is positive. This means that the increase in the money supply has the consequence of the growth in gross domestic product.

2.2.2 The effectiveness of monetary policy

We will use the value of money supply multiplier (26) as an indicator of the effectiveness of monetary policy. The greater the value of the multiplier is, the more effective monetary policy is, and vice versa. The value of the monetary policy multiplier depends on the shape of the LM curve. In order to show how effectiveness of monetary policy depends on the multiplier, we will multiply its numerator and denominator with $l^{'}$, so we have:

$$\frac{dY}{dm} = \frac{I^{'}}{l^{'}\left[1-\beta(1-t)\right]+I^{'}k^{'}} \qquad (27).$$

As both $I^{'}$ and $l^{'}$ are negative, the expression (27) is positive. From (27) we see that, if $l^{'}$ is very large, that is, if the sensitivity of the speculative demand for the money is large, the denominator of the expression will be very large, so the value of the multiplier will be very small. This case is presented with almost horizontal LM curve, in Figure 9, because at low interest rate the speculative demand for money is very sensitive to its changes.

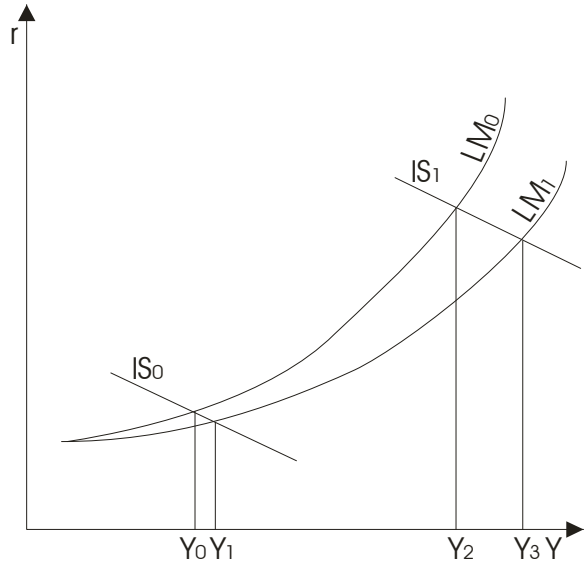


Figure 9 The effectiveness of monetary policy

We see that in a situation of high unemployment and low interest rates, increasing the money supply increases relatively little GDP, so the efficiency of monetary policy is low. The increase in money supply which would move LM curve to LM_1, in a situation of high unemployment, would increase GDP only from Y_0 to Y_1. However, in a situation of high employment, the same increase in money supply would result in much greater increase in GDP from Y_2 to Y_3. Namely, at the high level of employment, there is a great transaction demand for money, so the interest rate is high. For that reason speculative demand for money is very inelastic, so the value $l^{'}$ is very small and tends to zero, as LM curve becomes more vertical. Therefore, the multiplier in that case tends to $\frac{I^{'}}{I^{'}k^{'}} = \frac{1}{k^{'}}$, which is actually its maximum value.

Accordingly, monetary policy has the greatest efficiency at the high level of employment, with high GDP and high interest rates, when almost the entire increase in the money supply is used to finance business transactions. Conversely, monetary policy has a minimum efficiency at the low level of GDP and low interest rates, when most of the increased money supply goes to the speculative demand, so this increase in the quantity of money in circulation does not have a big impact on the change in GDP, neither on interest rates.

2.2.3 The limitations of monetary policy in developing countries

It is clear that developing countries have bad or no developed money and capital markets, and therefore, the same instruments of monetary policy do not have the same effects, as in developed countries.

We have already seen that changes in the money supply affect the change in interest rates. The change in interest rates leads to the change in investment, which through the process of the multiplier affects GDP and other real variables. To make this "channel" of monetary policy work at all it is necessary that investments are resilient to the change in interest rates. However, even when investments are resilient to the change in interest rates, this channel of monetary policy can not operate, if the interest rate is exogenously determined and inelastic to the change in the money supply, which is very common in underdeveloped countries. In such cases, the interest rate is usually determined at the level which is lower than the market interest rate, and it is not rare that capped interest rate is lower than the inflation rate. Because of all of that the interest rate has almost no impact on real economic variables in countries with underdeveloped money and capital markets. Therefore, the monetary policy measures that affect the interest rate function very poorly or do not function at all.

Also, changes in the money supply can affect the change in GDP by the impact on the change in personal spending. This impact of monetary policy on real economic variables in developing countries can be very effective. Negative effects are reflected in the fact that an increase in the money supply affects the increase in demand, and therefore the increase in the relative prices of goods for personal spending. Given that the commodity supply in developing countries is relatively scarce, the increase in the money supply usually results in the increase in inflation rate. In addition, the increase in the money supply affects the growth of personal spending, and this usually happens at the expense of export and / or investments, which are a prerequisite for economic development.

Given that in developing countries, most often, there is distrust in the banking sector, a large part of the money supply is held in a form of cash. Therefore, the value of monetary multiplier is very low, which limits the possibility of multiplicative expansion or contraction of money and credit by the banking system. From the foregoing, it is very clear what problems and constraints the creators of monetary and often overall economic policy in underdeveloped countries face.

2.3 The combination of instruments of fiscal and monetary stabilization policy

So far we have analyzed what impact on the general economic equilibrium the change in instruments of one of the policies has. However, the time has come to examine whether the state is able to use simultaneous measures of fiscal and monetary policy to establish the disturbed general economic equilibrium. Verification will be performed graphically in Figure 10, with the help of macroeconomic "tool", which we have already used. Suppose the commodity and financial markets are in equilibrium, but at the lower GDP (Y) than the level determined by the supply,

when the labor market is in equilibrium ($\bar{Y}$). For that reason, the general economic equilibrium is not established too, because there is underemployment in the labor market.

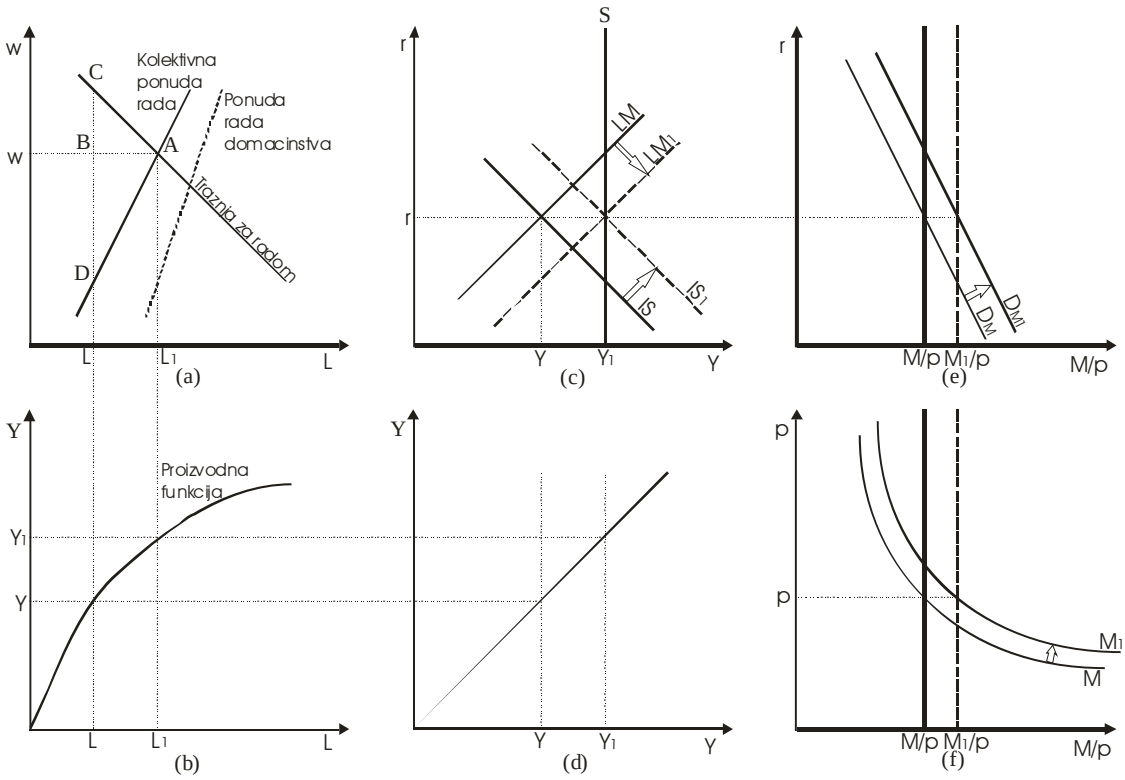


Figure 10 Expansionary fiscal and monetary policy and the general economic equilibrium

If the state uses expansionary fiscal policy to impact the shift of the IS curve to the right, from IS to IS_1, GDP increases, which results in the growth in the money demand. If the real money supply ($\frac{M}{p}$) remained unchanged, there would be an increase in interest rates, which would affect a decrease in investments. However, if the central bank supported the existing growth in the money demand with expansionary monetary policy, which would affect the shift of the curve M to M_1, with rigid prices, there would be an increase in the real money supply to $\frac{M_1}{p}$, which would result in the shift of the LM curve to the right, and in this way the interest rate would remain unchanged. It is now quite clear that the state is able to use simultaneous measures of fiscal and monetary policy to increase the volume of gross domestic product, without a rise in interest rates, and thus eliminate unemployment in the labor market and establish the general economic equilibrium.

Conclusion

Every economy adapts to constant fluctuations of its economic activities, which are the result of actions of the private sector. Precisely, stabilization policy with its appropriate measures allows prevention or at least mitigation of these fluctuations.

Stabilization policy is not a goal, but only a “necessary” tool for a successful economic policy. It is aimed at neutralizing the adverse economic trends and establishing the economic stability, that is, the general economic equilibrium. In other words, stabilization policy is, in fact, counter cyclical economic policy, which is necessary to eliminate short-term fluctuations in

business cycles, or at least to mitigate the amplitude of these oscillations. Thus, stabilization programs should precede or at least follow the programs of structural reforms in order to create a favorable macroeconomic climate.

Stabilization policy is usually conducted with the measures of fiscal and monetary policy. The instruments of economic policy are in the hands of the state, and it can affect demand, using fiscal policy, with a change either in its expenditures or in revenues, and using monetary policy, with a change in the money supply, or even combining the instruments of fiscal and monetary policy. Stabilization policy can be expansionary, leading to an increase in the volume of economic activities, and restrictive, resulting in lower level of economic activity.

In the previous analysis, when it comes to fiscal stabilization policy, we have come to the conclusion that in a situation of unemployment an increase in budget spending has a greater multiplicative effect on the increase in economic activities, rather than a decrease in budget revenues. Also, we have shown that the elimination of unemployment is mostly affected by an increase in budget spending directed to investment, then by an increase in social transfers, and in the end by an increase in "classical" budget expenditures. Regarding the effects of monetary stabilization policy, we have come to the conclusion that in a situation of underemployment it is desirable to increase the money supply, and thus stimulate economic activity, while in conditions of inflation it is expected to decrease the quantity of money in circulation.

However, despite numerous constraints, particularly in developing countries, both in the implementation and in the effectiveness of fiscal and monetary policy, we have concluded that the state is able using "adequate" measures of stabilization policy at least to mitigate, if not eliminate fluctuations of economic activities. In other words, our conclusion is that the state is able, if not completely, then at least partially, provide the conditions for the general economic equilibrium.

Literature

1. Babić, M. (2001). *Makroekonomija*, Zagreb: Mate.
2. Blanchard, O. (2005). *Makroekonomija*, Zagreb: Mate.
3. Burda, M.; Vilpoš, Č. (2004). *Makroekonomija: evropski udžbenik*, Beograd: Centar za liberalno – demokratske studije.
4. Gruber, J. (2015). *Public Finance and Public Policy*, 4th edition, New York: Worth Publishers.
5. Dušanić, J. (2004). *Monetarni i tržišni fundamentalizam*, Beograd: Geopolitika.
6. Душанић, J. (2001). *Novac*, Beograd: Zadužbina Andrejević.
7. Јакшић, M. (2004). *Makroekonomija: principi i analiza* - dodatak PC Ekonomija – dodatak PC Beograd: Centar za izdavačku djelatnost Ekonomskog fakulteta u Beogradu.
8. Plakalović, N. (2004). *Monetarna ekonomija: teorija, institucije i politika*, Srpsko Sarajevo: Zavod za udžbenike i nastavna sredstva.
9. Rosen, H. (2005). *Public Finance*, Boston: Irvin/McGraw-Hill.
10. Stiglic, Dž. (2004). *Ekonomija javnog sektora*, Beograd: Ekonomski fakultet.

Slike 2, 8 i 10:

Kolektivna ponuda rada – Collective labor supply
Ponuda rada domaćinstva – Household labor supply
Tražnja za radom – Demand for labor
Proizvodna fukncija – Production function

PART TWO:
SMEs, BARRIERS TO BUSINESS AND BUSINESS STRUCTURES

WHY SMALL AND MEDIUM SIZE ENTERPRISES ARE DYING: EMPIRICAL EVIDENCES FROM BOSNIA AND HERZEGOVINA

Saša Petković, PhD[71]

Boban Sašić, MA[72]

Clemens Jäger, PhD[73]

Veland Ramadani, PhD[74]

Abstract

Small and medium size enterprises (SMEs) play a significant role in economic development in the developed countries of the world. The development of entrepreneurship in transition countries is one of the forms of transition from a centrally-planned to a market economy. However, with regard to its constitution, specificity and various forms of business in relation to large enterprises and multinational corporations, the mortality rate of SMEs compared to large enterprises is much higher, particularly in crisis and post-crisis period. In Bosnia and Herzegovina (BiH) and the Republic of Srpska (RS), one of two BiH entities where we have conducted empirical research, in addition to the lack of available alternative external sources of financing for start-ups and existing SMEs, there are a number of other factors, of both internal and external nature, which cause an increase in the mortality rate of companies. We investigated why a large number of SMEs in BiH were shutdown in the first years of operation and what measures should be taken to secure their survival, development and growth. For the purpose of this paper a research was conducted using the quantitative method of a random sample of 110 SMEs. We examined the role, influence and the importance of certain factors that could cause the company to stop its operations. The aim of this research is to discover and understand the factors that lead to a shutdown of enterprises in transitional economies, such as the BiH economy. Respondents from the research sample identified the following factors as the main obstacles to successful development of their business: difficulties in the collection of receivables from debtors, complicated legal procedures that regulate the work and business operations of enterprises, high rates of taxes and contributions on wages, the negative impact of the global economic crisis, and expensive and complicated procedures for obtaining loans from commercial banks.

Key words: small and medium-sized enterprises (SMEs), entrepreneurship, transition, mortality of enterprises, economic development.

[71] Saša Petković, PhD, University of Banja Luka, Faculty of Economics, Bosnia and Herzegovina, sasa.petkovic@efbl.org (coresponding author)

[72] Boban Sašić, MA, Ministry of Education and Culture of the Government of Republic of Srpska, Bosnia and Herzegovina, bobosasic@gmail.com

73 Clemens Jäger, PhD, FOM Hochschule für Oekonomie & Management University of Applied Sciences, Essen, Germany, jaeger.clemens@t-online.de

[74] Veland Ramadani, PhD, Shout-East European University, Faculty of Business and Economics, Tetovo, Macedonia, v.ramadani@seeu.edu.mk

1. Introduction

Small and medium-sized enterprises (SMEs), firms with fewer than 500 employees, are the backbone of the U.S. economy. They make up 99% of all firms, employ over 50% of private sector employees, and generate 65% of net new private sector jobs. SMEs account for over half of U.S. non-farm GDP, and represent 98% of all U.S. exporters and 34% of U.S. export revenue (Grover and Suominen, 2014, p. 2). Across the EU28 in 2013, some 21.6 million SMEs in the nonfinancial business sector employed 88.8 million people and generated €3,666 trillion in value added. Expressed another way, 99 out of every 100 businesses are SMEs, as are 2 in every 3 employees and 58 cents in every euro of value added (European Commission, 2014). SMEs are the dominant form of business organization in both developed and developing economies (Harvie et al., 2013; OECD, 2013) as they play a major role in economic development (IFC, 2010). In Bosnia and Herzegovina (BiH), SMEs represent more than 99% of enterprises (Open Society Fund BiH, 2013).

In order to stimulate the development and growth of SMEs, various instruments and models of financial and non-financial support to this sector have been developed (Grover and Suominen, 2014; OECD, 2014; Petković and Tešić, 2013). Relevant institutions in a number of developed world economies, to a lesser or greater extent, stimulate growth and development of SMEs and entrepreneurship through adjusting business environment to defined needs of the SME sector, the rule of law or through the direct monetary incentives (Erastus et al., 2014).

One of the main problems that SMEs are facing in transition countries such as BiH is access to external sources of financing (OECD, 2013; IFC, 2010; Balling et al., 2009; Burk and Lehmann, 2006). The data show an uncertain or weak recovery in SMEs' and entrepreneurs' access to finance in many countries since the Great Recession (OECD, 2014). Guaranteed loans remain the most widely used instrument at governments' disposal to ease SMEs' access to finance (OECD, 2015).

In BiH and RS, one of two BiH entities where we have conducted empirical research, in addition to the lack of available alternative external sources of financing for start-ups and existing SMEs, such as angel investors, venture capital funds, factoring, mezzanine financing, crowdfunding, etc., there are a number of other factors, which cause an increase in the mortality rate of companies. The complex constitutional structure of the country, the transition to a market economy, a still unstable political situation in the two decade-long post-war period, and insufficient development of the institutions of entrepreneurial infrastructure are some of the reasons for the decline of interest of foreign investors in BiH in recent years.

In addition to all of the above, an inadequate education system, fiscal policy insufficiently sensitive to the needs of SMEs and in particular to the start-up enterprises, insufficient links between research institutions and the real sector, low level of knowledge of entrepreneurs and managers in the field of entrepreneurial economics, management, business finance and marketing, are some of the factors for a high mortality rate of SMEs. The core of the transition process is institution building (Trivić and Petković, 2015). As Ramadani and Dana (2013, p. 218) state: "Transitional economies provide a particularly fascinating backdrop for the development of entrepreneurship". Health and vitality of entrepreneurship is increasingly seen as one of the key factors which generate economic growth (OECD, 2013). Accordingly, the governments of most OECD countries provide fiscal incentives and tax breaks for self-employment and SMEs, with the aim of raising the level of entrepreneurship.

Although enormous efforts are being invested in order to create a conductive business environment for the growth of newly formed and development of existing SMEs, due to the

impact of a number of different factors, of both internal and external nature, many companies shut down during the first years of existence (Chittithaworn et al., 2011). Shutdown of SMEs results from the inability of the business founders, entrepreneurs and managers to provide the company's operations over the long term in accordance with the relevant legal provisions. Often, the cause of a business shutdown is the lack of adequate knowledge in the field of economics (management and entrepreneurship) of the person entering the business or running the business, that is, lack of formal and informal education (Petković, 2010; Kecman, 2010).

One of the strategic objectives of the relevant institutions in BiH should be to reduce the rate of shutdown of SMEs to the lowest possible level and systematic support for the development of entrepreneurship and the establishment of new enterprises. This research was focused on finding answers to the question of why in BiH a large number of SMEs were shutdown in the first years of business operations and what measures should be taken to ensure their survival, growth and development? The research subject of this paper is theoretical and empirical analysis of the factors affecting shutdown of SMEs in BiH. The research area was geographically focused on RS as a specific economic space in BiH. For the purpose of this paper a research was conducted using a random sample method from the APIF[75] database on the territory of 5 cities and 14 municipalities in RS, in the period from 12th December 2013 to 14th March 2014 when questionnaires were collected from 110 SMEs. We examined the role, influence and the importance of certain factors that could cause a company to stop its operations. The aim of this research is to discover and understand the factors that lead to a shutdown of enterprises in transitional economies, such as the BiH economy. The paper consists of four parts: literature review, results of empirical research, discussions and comparisons of those results with similar researches and conclusions with recommendations.

2. Literature Review

The term entrepreneurship was "forged" at the beginning of the twentieth century as an activity of entrepreneurs (Drucker, 1991). Entrepreneurship can be recognized in large enterprises, banks, hospitals, universities, non-governmental organizations, and public-private partnerships in the form of so-called intrapreneurship. Unlike corporate entrepreneurship, the term entrepreneurship is most often related to newly-established small companies. However, not every newly-established small company can be considered entrepreneurial company. An entrepreneurial small company, besides satisfying perceived and created needs and opportunities, creates new value in the eyes of customers and experiences dramatic changes in its own growth and development and typically exhibits exponential growth and development, as measured by increased investments, jobs and profits.

2.1. Entrepreneurship and SMEs development – theoretical concept

In the nineteenth century, Jean-Baptiste Say defined the entrepreneur as a person who shifts economic resources out of an area of lower and into an area of higher productivity and greater yield (Say, 1855). Joseph Schumpeter wrote that the function of entrepreneurs is to reform or revolutionize patterns of production (Schumpeter, 1934). They do this by exploiting innovations or, more generally, by usin new technologies for the production of new products or for the production of existing products and services, but in a new way, by reorganizing the industry and creating added value through innovation. Innovation involves not only new technical and technological solutions but also a new way of using existing resources, providing "economic" values to the resources and, most importantly, giving the value to the users of products and services in a way that they accept it, i.e. perceive it.

[75] APIF – Intermediary Agency for IT and financial services (see at http://www.apif.net/index.php/en/about-us.html)

The link between SMEs, entrepreneurship and economic growth has been the focus of research since 1940 (Fotopoulos, 2012; Wennekers et al., 2010; Carree and Thurik, 2010; Lumpkin and Dess, 1996). Many studies have linked entrepreneurial orientation with the performance of SMEs in the light of the role of economic framework and environment in achieving a world-class range of SMEs (Rigtering et al., 2014). Large numbers of empirical studies have shown that developed countries which have encouraged entrepreneurship and development of SME sector have had higher economic growth (Acs, 2006; Audretsch and Thurik, 2000). As the basic advantages of SMEs, Petković and Berberović (2013, p. 29) emphasize: the flexibility, adaptability, easier entry and exit from the business activity, technological adaptibility and expressed innovativeness as the basic advantages of small companies. By comparing the resilience of the SME sector to the crisis in comparison to large enterprises in the EU, we can conclude that European SMEs were significantly more resilient to the crisis than large companies, especially in the sphere of employment.

However, it was harder for the SME sector to recover from the economic crisis than the large enterprises sector (European Commission, 2013, p. 7). SMEs can play a significant role in alleviating the adverse effects of downsizing in large enterprises through the concept of self-employment. In the United Kingdom, in 2014, 4.6 million people were self-employed in their main job, accounting for 15% of those in work, which is the highest percentage at any point in the past four decades, since data has been collected. There were also an additional 356.000 emloyees who had a second job in which they were self-employed (Office for National Statistics of UK, 2014). The level of value added generated by these SMEs increased overall by 1.1% in 2013. However, this positive trajectory is tempered by two ancillary points: firstly, a slowdown in this increase from the two previous years, when it was 1.5% (2012) and 4.2% (2011); and secondly a decline in 2013 in both the total number of SMEs (-0.9%) and the number of people employed by SMEs (-0.5%) (European Commission, 2014, p. 6).

However, according to forecasts of the European Commission (2014), the time of recovery is ahead of us. Looking ahead, there is a positive outlook and the promise of a strengthening of the recovery on the horizon. Total value added generated by SMEs has already surpassed its pre-crisis level and is now expected to rise by 2.8% in 2014 and 3.4% in 2015. Employment is also expected to rise, with another 740,000 jobs in SMEs, as is the total number of SMEs (+0.38%) by 2015 (Ibid, 2014, p. 9).

In BRICS countries, the role of the state has a strong influence on the business operations of SMEs in the non-financial business sector. According to official statistics, 5.37 million micro and small enterprises operated in Brazil in 2006. The greatest problem of Brazilian SMEs is their small share in exports (only 2.4%), especially compared to other developed countries such as the USA, China, Italy and others (Mello and Valle, n.d). This low percentage of SMEs share in exports provides a huge market space and market potential for the growth of existing Brazilian SMEs and establishing new ones. According to the Russian Statistics Agency, SMEs employ only 20% of the Russian workforce. The largest number of Russian SMEs are located in Moscow and Moscow’s surroundings (about 43%), indicating an uneven distribution of Russian SMEs (Levchenko, 2008). Particularly worrying is the fact that 40% of SMEs in Russia are in the "gray zone", i.e. they are not registered, they do not keep official books or pay taxes (Barre, 2005). The most important specificity of SMEs in China, compared to other countries, is the huge share of SMEs in China’s total exports (68%). This is a considerably higher percentage than in any other economy in the world (Hall, 2007). China has created more SMEs in the last 20 years than Europe and the United States together (Ibid, 2007).

2.2. SMEs mortality – causalities and consequences

In order to analyze the rate of shutdown of enterprises, it is essential to define term "the net rate of establishment of new enterprises". It represents the difference between the number of established and the number of closed enterprises and defines whether the total number of enterprises increases or decreases in one year (Carnazza, n.d.). The rate of birth and death of enterprises is calculated as follows: the number of established and closed enterprises in one year / total number of active enterprises in the country in one year (European Commission, 2011a). At the beginning of the global financial and economic crisis, in 2009, the net rate of establishment was high only in France (4.7%). In Germany, Italy and the UK, the net rate of establishment ranged from -0.5% to 1.3 % (Ibid, n.d.). The easiest way to understand and to measure this meaning is legal failure, where a small company is formally liquidated or in the case of an unincorporated enterprise the owner becomes bankrupt for business reasons. An alternative approach is to relate failure to the exit rate of owners or firms from the small business sector. Such discontinuances may include loss cutting procedures (to dispose of a business to avoid further losses), or because of a financial "failure to make a go of it" (Cochrane, 1981) which would include, but not be limited to, legal failures (Peacock, 2000). As many as 50% of European enterprises do not survive the first five years of existence (European Commission, 2011a). This information has a secondary effect on other entrepreneurs who often do not want to start their own business because of the fear of enterprise shutdown (Ibid, 2011). When it comes to SMEs in China, the survival rate of enterprises is growing with the growth of company size (Liu Pang, n.d.). Similar statistics were noticed with companies in neighboring countries. In Croatia in 2011, the biggest drop was recorded in the category of medium enterprises (6.3%), small enterprises (5.7%) and in the category of large enterprises (4.3%) (CEPOR, 2012, p.13). In Serbia, in 2012, a growth of 266 companies was accomplished compared to 2011 (Statistical Office of the Republic of Serbia, 2013). In the Republic of Srpska, from 1st January till 30th June 2015 there were 518 registered enterprises, while in the same period in 2014 that number was 632 (APIF, 2015). According to the Central Bank of BiH official data, the inflow of Foreign Direct Investments in 2013 in BiH was 418 million BAM or 214 million EUR, which is 21.6% less than previous year (CBBH, 2014). Investors are facing with great material and immaterial liabilities which can lead to company shutdown. Companies in the RS must comply with over 20 laws relating to the payment of various fiscal and para-fiscal levies and about 30 laws which, if not adhered to, can lead to penalty provisions. In the course of one year the company is obliged to submit 150 various reports and forms (Austrian Development Agency, 2011, p. 86). There are a number of interesting conclusions concerning the rate of shutdown of enterprises in the EU (European Commission, 2011b; Carnazza, n.d.):

1. The rate of shutdown of enterprises is, as a rule, higher in services than in the manufacturing sector;
2. The largest variations in the rate of shutdown of enterprises are linked to the countries that have recently joined the European Union (Lithuania, Slovakia, Hungary, Estonia and Romania);
3. The impact of the great economic crisis on the rate of shutdown of enterprises is still not clear. It takes a certain time distance so that they are fully and clearly identified;
4. The rate of shutdown of the enterprises were higher in micro enterprises compared to enterprises with 10 or more employees;

There are a large number of reasons why companies fail to make their business operations long-term. The most common reasons according to Corman&Lussier (1996) are inadequate managerial skills, inadequate financing and weak competitive position, causes of personal nature, unfavorable business environment, market elements and neglecting enterpreneurship. Jennings and Beaver (1995) were critical of many studies of small business failure because they tend to focus on symptoms or "reasons cited for failure" by proprietors rather than root causes of failure. We need to recognize three levels of "causes". First of all, there are inherent or generic problems of

smallness, and the key one is the dependence of the firm on only one owner-manager in most cases. Then there are root causes of failure that can be detected for individual firms, such as a lack of finance or poor management. Also there are symptoms of problems or failure which proprietors tend to confuse with root causes. For example, a lack of inventory or poor planning may be a symptom of incompetent management and to remedy either symptom will not solve the key problem. Some symptoms may not present themselves to the proprietor because of a lack of expertise or the right type of information. The doctor-patient analogy in the following small business highlight illustrates the three levels of causes (Peackok, 2000).

2.3. Factors affecting SMEs business operations

In the current business environment, the personality of entrepreneur plays a key role in achieving business success. In the opinion of Deakins (1996), the following positive characteristics of entrepreneurs contribute to the success of enterprise: orientation towards success, acceptance of calculated risk, high level of self-control, innovativeness, risk tolerance and vision. Today, at a time when knowledge is floating all around us, we are doomed to be constantly uneducated or (not) enough educated (Riderstale and Nordstorm, 2004). Previously, the state and individuals got rich by a combination of factors of production. Today, success largely depends on the „brains" (Ibid, 2004).

Formal education provides the knowledge that can be found in textbooks. However, the rate of development of new knowledge seems to make current textbooks insufficiently current. Therefore, non-formal education plays a significant role in the development of entrepreneurs (Loewen, 2011). Many factors contribute to the non-formal education of entrepreneurs: society, family, friends, the press, courses, seminars, trainings, discussions, polemics, system of values, personal goals, culture, geographical position of the country, and so on. In successful economies of the world, great attention is paid to entrepreneurial education and so-called lifetime education of every individual, which consists of a formal, non-formal and informal education. “One example of an organization that conducts training in entrepreneurship through non-formal education in the US is the Consortium for Entrepreneurship Education” (Ivanović, 2010). Petković (2010, p. 170) believes that entrepreneurship must be given considerable attention from the very pre-school education.

The business environment has an enormous influence in the operation of SMEs. In most cases, a stimulating business environment will extend the lifespan of the company. Guided by this thought, the competent institutions must make efforts to continuously improve the business environment. One of the main problems that SMEs are facing in transition countries such as BiH is favorable access to external sources of financing (OECD, 2013; IFC, 2010; Balling et al., 2009; Burke and Lehmann, 2006). All companies are facing this problem, regardless of whether they are companies that already have a well-developed business or those that are start-ups. In particular, this problem relates to SMEs in the early stages of development (start-up companies) that do not have sufficient funds for the activities of research, development, and commercialization of innovations. It is also extremely difficult to find sources for funding research, development and innovation projects. “Policymakers increasingly agree private equity can provide long-term finance to Europe’s businesses, at a time when such patient capital is scarce” (EVCA, 2014). When it comes to sources of external financing, companies in most cases opt for loans from commercial banks and micro-credit organizations (Petković and Berberović, 2013, Erić et al., 2012) than factoring, (USAID, 2013) venture capitals (Ćudić, 2012), and mezzanine financing (European Commission, n.d.). At this point the actual instrument to support SMEs in the European Union is COSME[76] (European Commission, 2014).

[76] Cosme is the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs) running from 2014 to 2020 with a planned budget of €2.3bn. COSME will support SMEs in the following

The existence of adequate financial support to the SME sector is necessary but not sufficient condition for its successful operation. Entrepreneurial infrastructure plays an enormous role in ensuring the successful start of business and the subsequent development of enterprises. SMEs in the EU economy are not left open to chance of the market, but are subject to financial, nonfinancial and more often, combined systematic support. Entrepreneurship is one of the main levers of the economy in modern societies and it receives even greater significance with the current crisis which began in mid-2007 and which has branched into various forms (Adriano et al., 2013). Around the world, the focus is increasingly placed on the promotion of enterpreneurship. Such efforts are the result of the connection between this process and economic development (Ferreira et al., 2010, as stated by Adriano et al., 2013, p. 169).

In the world today, there are about 4,000 business incubators. 1,000 incubators are located in the North America and the European Union each. The result of the work of European incubators is the formation of 40,000 new jobs each year. It is interesting to note that companies that go through an incubator have a higher survival rate than other SMEs (Vasilescu, 2008). With the accelerated globalization of market, which accelerated the development of clusters, resources are moving to attractive regions, hence redefining the role and importance of clusters (European Commission, 2008). In Europe, there are about 2,000 statistically significant clusters, defined as regional agglomerations, and they employ about 38% of the European workforce (Commission of the European Communities, 2008a, p. 3). In the EU, between 30% and 40% of all employees in the non-financial sector are concentrated in companies which are members of industrial clusters. Approximately 38% of all Europeans work in companies that are components of some of the clusters in general, while more than 21% of employees belong to regions that are more than twice specialized in certain categories of clusters than regions without strong clusters (European Commission, 2013, p. 7). Today, there is plenty of evidence to suggest that innovation and economic growth are strongly geographically concentrated. Economic prosperity between the regions in Europe is linked to the strength of clusters (Sölvell et al., 2009). In 2012, in a database on http://www.clusterobservatory.eu/ there were around 1,400 cluster initiatives across Europe. Data from the European Cluster Observatory reveal a significant relationship between the regional specialization (the degree of clustering) and innovative performances (measured by the number of patents) (Ibid., 2009, p. 15). Thanks to clusters, many European regions have developed competitive advantages in specialized activities, such as financial services (London), petrochemicals (Antwerp), flowers (Netherlands), and biopharmacy (Danish-Swedish border region) (European Commission, 2013) .

One can not ignore the impact of the current global economic crisis on the operation of SMEs. The facts show that the economic crisis had a negative effect on the operation of SMEs, i.e. that it increased the mortality ofSMEs (European Commission, 2013). The competent institutions of many countries and regional integration institutions have taken measures to prevent the negative effects of the global economic crisis. Only in the period between 2010 and 2012, EU member states have implemented a total of 2,400 measures of support to the SME sector, or an average of 800 measures per year, or 90 measures per Member State (European Commission, 2013, p. 8). Many states, in response to the economic crisis, introduced austerity measures, cuts in wages and consumption. Reduction of consumption among a wide range of the population or reduction of budget spending reduces a demand for products and services of SMEs, which leads to reduced revenues and accelerates time for company to shutdown.

area: Better access to finance for Small and Medium sized Enterprises, Access to markets, Supporting entrepreneurs and More favourable conditions for bussines creation and growth (European Commission, 2014).

3. Empirical research

For this reasearch, we conducted a randomized quantitative survey using an online questionnaire. The paper version of the questionnaire is a Microsft Word document. Research for the paper was carried out in five cities and 14 municipalities in the RS. In the period from 12th December to 31st December 2013 we collected 62 questionnaires. From 20th January 2014 to 14th March 2014 the remaining 48 questionnaires were collected.

3.1. The research sample

To achieve the representativeness of the sample, we sought to collect the completed questionnaires from the largest possible number of municipalities and cities in the RS. We measured the attitudes of respondents and examined the facts, using 58 questions. The questionnaire included closed questions, questions with multiple-choice answers, open questions, as well as questions with a scale from one to ten, where the option one indicated the highest priority and the option ten indicated the lowest priority.
Respondents who were owners or managers of the companies independently completed a questionnaire, which was created in a way that it could be completed in 10 to 15 minutes. The survey was conducted on a sample of 110[77] SMEs in the RS. Taking into account the number of SMEs from the "Annual Report for the field of SMEs and crafts and entrepreneurial activities in the Republic of Srpska" (RS Government, 2012), the number of collected questionnaires is relatively small compared to the statistical weight (0.74) but because of the way of sampling, this fact does not diminish the quality of empirical research.

3.2. Limitations of the research

There are several limitations that have slowed down the pace of the research and reduced the total number of collected questionnaires:

- the lack of interest of a large number of owners and managers to complete the questionnaire, which showed a lack of understanding for academic research, as one of the possible forms of establishing measures whose implementation would improve the economic indicators;
- a certain level of subjectivity and the imposition of personal opinions and attitudes of the respondents, which should be taken with a certain level of reserve;
- the last analysis of the SME sector in the RS relates to 2011;

3.3. Research results

The questionnaire, which was used to collect data on the attitudes and opinions of respondents consisted of the following parts:

1. General information about the company;
2. Formal and non-formal education;
3. Business environment and market elements;
4. Financial and non-financial support to the SMEs sector.

In the following lines, we will present some results of the research relevant to prove the research hypotheses.

[77] The sample included companies with less then 250 employees (author's note).

3.3.1. General information about the company

The average age of companies from the sample was 13.88 years[78]. However, this information cannot be considered entirely relevant, because the standard deviation is high at 9.93. We will therefore, in order to obtain relevant data, use the mode and median as a measure of central tendency. The median was presented in 2001, and we conclude that 50% of companies in the sample were established before 2001, and 50% of companies after 2001. Most companies (10 or 9.1%) in the sample were established in 2007. Of the total number of companies, 51 companies (46.36%) belong to the group of micro-enterprises, 42 companies (38.18 %) belong to the group of small enterprises, while 17 companies (15.45%) belong to the group of medium-sized enterprises. When it comes to the legal form of companies in the sample, limited liability companies dominate (85 or 77.27%), followed by joint stock companies (11 or 10%), self-employed (10 or 9.09%), three cooperatives and one public institution. Private companies (90.91%) were dominant in the sample. Regarding the activities of companies in the sample, primacy was given to companies from the field of wholesale and retail trade (24.55%), wood processing and wood products (12.73%). The sample included companies from twenty other fields. Data on the number of employees in the companies in the sample are shown in the following table:

Table 1. Statistical data on employees in the sample companies (Source: Authors)

STATISTICAL INDICATORS	**OVERALL PATTERN**	**COMPANY'S LEGAL FORM**			**OWNERSHIP STRUCTURE OF THE COMPANY**	
		Joint-stock company	A limited liability company	Independent entrepreneur	Private ownership	Mixed ownership
Average number of employees	29.00	75.27	26.85	5.60	23.38	86.00
Standard deviation	42.80	55.18	40.38	5.34	38.41	37.53
Modus	2.00	#N/A[79]	2.00	2.00	2.00	#N/A
Median	10.00	70.00	11.00	3.00	9.50	70.50

Most of companies have 2 employees (15 companies). It is clear that the majority of companies that are joint stock companies and are in mixed ownership belong to the group of medium-sized enterprises and individual entrepreneurs are mostly representatives of the group of micro-enterprises.

3.4. Hypothesis testing

In this paper, we set up one main and three auxiliary hypotheses. Verification of auxiliary hypotheses will lead to clarification of the main hypothesis of this paper, which reads: *reducing the rate of shutdown, i.e. the number of closed SMEs, will contribute to the prosperity of the economy of RS and BiH, which will be manifested through employment growth, increased economic growth and increased domestic and foreign investments*. Hypothesis testing is done on

[78] The oldest company in the sample was established in 1948, while 6 companies were established in 2013 (author's note).

[79] It is not possible to calculate the modus of the number of employees in joint-stock companies and companies with mixed ownership because there is no most common data in the data series (author's note).

the basis of the results of the conducted research and specific experiences of other countries that have been presented in the literature.

The first auxiliary hypothesis (H1)

We will prove the first auxiliary hypothesis by following the results of empirical research conducted for the purpose of this paper. **H1**: *Education of entrepreneurs and use of consulting services in the first years of the company existence will enable the company to move towards higher phases in the life cycle of the company*.

A turning point in the life cycle of the company is the point at which the company shifts from the go-go phase to the phase of adolescence. At this phase, the founder of the company, who until then had been an absolute "culprit" for all the successes and failures of the company, can choose two scenarios for his or her company. First, the company remains in the go-go phase and the founder continues to successfully manage his/her company without ambitions for further growth and development. Alternatively, the company enters the second phase of adolescence that involves significant changes in the organization and management of the company. In our case, we distinguish the two groups of companies, based on the following:

1. Do the owner or manager of a company have formal education in economics and management?
2. Is the company managed by professional management?
3. Does the company use consulting services?

Also, we must note that the characteristics of companies in the higher phases of the life cycle are: existance of a professional management, managers who have a broad formal and non-formal education, then the use of consulting services, etc.

From the analysis of empirical research results, we get the following findings:

1. There is a statistically significant difference between the financial indicators of companies whose owners and managers have acquired formal education in the field of economics or management and financial indicators of companies whose owners and managers have not acquired formal education in these field ($p = 0.008$).
2. Using the Mann-Whitney U test on financial indicators of surveyed limited liability companies, we have concluded that there is no statistically significant difference ($p = 0.212$) between financial indicators of limited liability companies which have the professional management and limited liability companies which do not have the professional management.
3. There was a statistically significant difference between the financial indicators of enterprises which use the services of consultants and companies which do not use these services ($p = 0.015$).

To further secure the link between the basic elements that are determinants of higher phases of the life cycle, we present the following facts based on the conducted empirical research.

Of the 46 companies managed by professional management (42% of the total sample), in 27 companies (24.5% of the total sample or 58.7% of the number of companies managed by professional management) the owner had acquired formal education in the field of economics or management. On the other hand, in 64 companies (58% of the total sample) not managed by professional management, only 15 companies (13.6% of the total sample or 23.4% of companies that are not managed by a professional management) the owner had acquired formal education in the field of economics or management. The situation is similar when it comes to the ratio of the acquired formal education of CEO and the representation of professional management.

We have established a link between the level of education of business owners and the use of consulting services. Of the 42 companies (38.2% of the total sample) whose owner had acquired formal education in the field of economics or management, 9 companies (8.2% of the total sample or 21.4% of the companies whose owner has acquired education in the field of economics or

management) use the consulting services. On the other hand, of the 66[80] companies (60% of the total sample) whose owners had not completed their formal education in economics or management, only 10 companies (9.1% of the total sample or 15.2% of the companies whose owners have not completed their formal education in the field of economics or management) use the consulting services.

Taking into account the above findings and statistically significant relationships that we have established by empirical analysis, the authors believe that the first auxiliary hypothesis was confirmed. The fact that there is no statistically significant relationship between the net margin of limited liability companies which have professional management and net margins of limited liability companies which do not have professional management can be somewhat depreciated by the high level of relation between the degree of formal education of the owner or manager of the company and a positive financial result ($p = 0.008$).

The second auxiliary hypothesis (H2)

The second auxiliary hypothesis is confirmed on the basis of empirical research results, in particular, based on the attitudes of the respondents about the limitations of business enterprises. **H2**: *Adapting the business environment defined needs of the SME sector will motivate growth in the total number of SMEs.* The question is what are the needs of the SME sector? In what way are they manifested? In which direction to go in adapting the business environment toward SMEs needs? Respondents from the sample assigned the following unique values to individual limitations of their business:

1. Difficulties in the collection of receivables from debtors (53.83);
2. Complicated legal procedures that regulate the work and business operations of enterprises (42.25);
3. High rates of taxes and contributions on wages (41.88);
4. The negative impact of the global economic crisis (25.98);
5. Expensive and complicated procedures to obtain loans from commercial banks (25.10);
6. Strong competition in the industry branch in which the company operates (24.05);
7. Weak support from relevant institutions to the SME sector (23.67);
8. High and unique VAT rate (18.15);
9. Complicated procedures for obtaining guarantees in guarantee funds (13.93);
10. We do not have quality standards[81] (e.g. ISO, HACCP, HALAL, CE) (11.39).

The needs of the SME sector can be identified with the elimination of the causes of these limitations. Also, it is clear that each of these limitations negatively affect the quality of the company's business operations. Resolving the causes of these restrictions will increase the quality of business, reduce the possibility of shutdown of companies and increase the motivation of entrepreneurs to open new businesses. For each of these constraints it is necessary to propose certain measures whose implementation will reduce the negative impact to the company's business operations. Based on the aforementioned, we conclude that the second auxiliary hypothesis was confirmed.

The third auxiliary hypothesis (X3)

We confirm the third auxiliary hypothesis by using the results of empirical research from the following section of the questionnaire: Financial and non-financial support to the SME sector. **H3**: Creation and improvement of models and instruments of financial and non-financial support to

[80] Two respondents did not give an answer to this question (author's note).

[81] Although we have found that there is a statistically significant difference between the financial indicators of companies that possess quality standards and those that do not possess the same standards, respondents see no limitation to business operations in the fact that the company does not have the quality standards (author's note).

SMEs will create a positive climate for major investment in this sector. The instruments of financial and non-financial support to the SME sector in the RS are at a very low level. Many of the developed instruments of financial and non-financial support to the SME sector were not represented in the RS. Many entrepreneurs and managers in the RS are not familiar with them. If they have information that the world has developed instruments of financial and non-financial support for the SME sector, then they are not familiar with the way of their functioning and impact on SMEs. It shows the results of our empirical research. 69.09% of respondents are familiar with the term guarantee fund, while only 53.64% of respondents are familiar with the fact that in the RS there is the guarantee fund. Only 24.55% of respondents know about the operation of the guarantee fund. It is clear that the Guarantee Fund of the RS does not fully meet its role or did not sufficiently adapt to the needs of potential users. Only 47.27% of respondents are aware of the concept of venture capital funds. Only 26.36% of respondents are aware of the concept of angel investors, and only 13.64% of respondents are familiar with mezzanine financing. 21.82% of respondents do not know whether a local agency for SME development even exists in their city. Below half of the respondents (49.09%) would agree to become a member of the cluster if in their industry there is possibility for clustering.

A large percentage of respondents (80.91%) believe that it is necessary to exclude commercial banks from the process of granting loans from state owned Investment Development Bank of the RS (IRB RS) in order to reduce the final interest rate. On the other hand, 83.64% of respondents believe that there should be a state-owned bank in the RS market. Only 26.37% of respondents are very satisfied or satisfied with the work of the IRB RS, although lending conditions are not worse than in other banks (interest rate is usually lower). Only 7 respondents (6.36% of the total sample) would renounce the majority share of ownership in the company in exchange for working capital.

Certain institutions supporting the SME sector in the RS (IRB RS and RS Guarantee Fund) continue to be perceived by the public as institutions that are closely linked to those in power[82]. It is believed that they often operate on non-market principles, which to some extent takes away the purpose of the existence of such institutions. There is a significant room for improvement here.

Taking into account the above mentioned, we believe that the third auxiliary hypothesis is confirmed because there is a huge space to create new and improve existing instruments of financial and non-financial support to the SME sector. The growth of availability and quality of these instruments would motivate entrepreneurs to invest in the creation of new SMEs and the expansion of existing SMEs.

After checking the auxiliary hypotheses that are accepted as true, the main hypothesis **H0**:

Reducing the rate of shutdown, i.e. the number of closed small and medium-sized enterprises will contribute to the prosperity of the economy of the Republic of Srpska, which will be manifested through employment growth, increased economic growth and increased domestic and foreign investments, was accepted as true.

4. Discussion

Based on the research results and the testing of auxiliary hypotheses, we have concluded that the reduction of shutdowns and the number of closed SMEs, would contribute to the progress of the RS economy that would be manifested through employment growth, increased economic growth and increased domestic and foreign investments. Below, we will compare the obtained research results with the results of similar empirical studies in the region and the world. The

[82] However, a significant number of respondents supported the existence of a state bank in the Republic of Srpska. This attitude stems from the belief that such a bank would provide more favorable loan conditions, taking into account the general interests of society, unlike private banks whose interest is purely economic (author's note).

positive experiences of other countries can serve as examples of how to improve the SME sector in the RS.

4.1. Comparison of achieved results with the results of similar researches

During the data collection about the number of SMEs in the Republic of Srpska and their structure, we have sent written requests to the Institute of Statistics of the Republic of Srpska (RZSRS), the Agency for Development of Small and Medium-Sized Enterprises of the Republic of Srpska (RARS), the Intermediary Agency for IT and Financial Services of the Republic of Srpska (APIF) and the Tax Administration of the Republic of Srpska (PURS). Unfortunately, results on the number of SMEs were different from one source to another.

The Agency for Development of Small and Medium-Sized Enterprises of the Republic of Srpska provided us with data taken from the annual reports for the area of small and medium-sized enterprises and crafts and entrepreneurial activities in the Republic of Srpska for 2012 and 2013, prepared by the Ministry of Industry, Energy and Mining of the Republic of Srpska and the Agency for Development of Small and Medium-Sized Enterprises, adopted by the Government of the Republic of Srpska. The explanation stated that the source of cited information is Tax Administration of the Republic of Srpska.

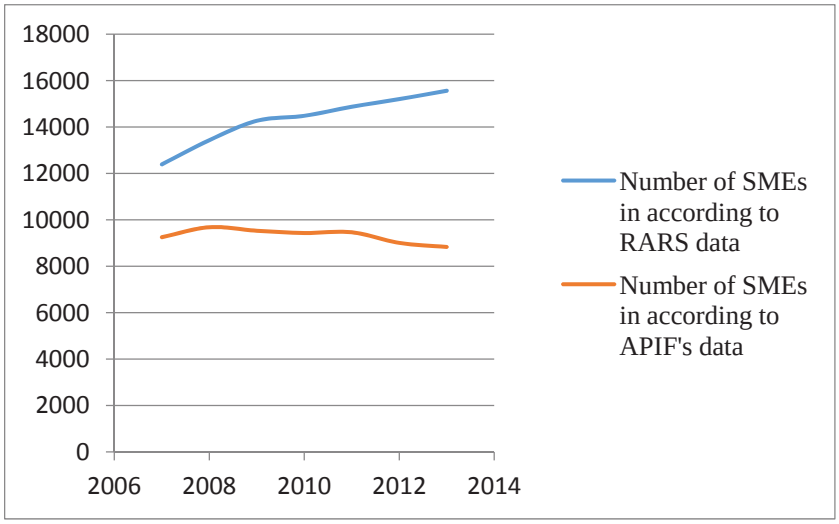


Figure 1: Number of SMEs in the Republic of Srpska from 2007 to 2013. (Source: Petkovic and Tesic, 2013). SMEs and Entrepreneurship Development and Institutional Support in the Republic of Srpska (Bosnia and Herzegovina). In Ramadani, V. and Schneider, RC (Eds.), Entrepreneurship in the Balkans. Diversity, Support and Prospects (pp. 293-315). New York, USA: Springer Link and RARS and APIF)

Comparing the APIF and RARS data we conclude that the number of SMEs, as represented by RARS, is increasing from one year to another, while according to APIF data, the number of SMEs that submit financial reports is decreasing. In addition, there is huge discrenpacy among official data. Namely, the number of SMEs according to APIF and RARS differ significantly. So, according to RARS data 15,560 SMEs operated in RS in 2013, while in the same period only 8,828 SMEs submitted their financial statements to APIF. The question is what happened with the difference of 6,732 SMEs which did not submit their financial statements? One logical explanation is that either the companies did not fulfill their legal obligation and did not submit their financial statements or simply they are out of business but not liquidated. Thus, there are no reliable indicators on the number of active companies in the RS, which significantly complicates the work on empirical research for the academic community.

According to data from the Directorate for Enterprise and Industry of the European Commission (2013), education is a crucial element of entrepreneurship. Studies show that students who receive entrepreneurship education are more likely to get a job, as well as to start their own business. Between 15% and 20% of high school students who participated in programs of simulation of mini companies established their own companies. This percentage is up to six times higher than in the total population, which shows the importance of entrepreneurship education for the professional development of young Europeans. Even 78% of students who have had entrepreneurship education got a job immediately after graduation, as opposed to 58% of students who have not had entrepreneurial education (Ibid., 2013).

Providing quality conditions for the functioning of SMEs is one of the basic preconditions for achieving prosperity and progress for all EU citizens. Recent studies, carried out on the subject of the contribution of the SME sector to overall economic growth, have shown that the scope of SMEs performance and their contribution to macroeconomic growth depend on the economic environment in which they do their business and on the entrepreneurial culture. However, even with the existence of a strong entrepreneurial culture, it will be difficult SMEs to struggle for their survival and development if the economic environment is not adequate and favorable (Fotopoulos, 2012; Wennekers et al., 2010; Carree and Thurik, 2010). Strategic approach to SMEs development policies has become an integral part for the recovery plan and growth stimulation. Structural and financial policies, combined with an innovative-friendly environment and entrepreneurial culture, can provide better opportunities for the development of SMEs. In addition, this approach requires paying attention to macroeconomic and other structural factors, such as: conditions of demand, strong research base, fostering competition, together with the presence of other factors such as human resources, finance, infrastructure and services (European Commission, 2010; Frank et al., 2010; Miles et al., 2009). In this framework, the role of SMEs may be a key determinant in ensuring rapid recovery from the economic crisis (European Commission, 2013, p. 11).

Problems with administrative regulations in EU have taken second place on the scale of constraints on growth and development of enterprises (Unlocking business potential, especially of SMEs, 2009, p. 12), as well as in our research, where the the second place has been taken by complicated legal procedures that regulate work and business operations of enterprises. In Croatia, which became the 28th member of the EU in 2013, according to data from CEPOR (2013, p. 37) that combines the results of many international studies which included Croatia, there are following obstacles for the develpment of SMEs: administrative barriers (time consuming and costly procedures for starting and liquidation of the company), judicial inefficiency, lengthy procedures for registration of ownership, poor focus on entrepreneurial education and lack of informal sources for financing business ventures start ups.
According to GEM results, as stated by CEPOR (2013), to improve the entrepreneurial conditions in Croatia, it is necessary to improve the government's policy on the regulatory framework, entrepreneurial education and the transfer of results of research and development activities in the SME sector.

According to the Global Competitiveness Report 2013-2014, the most problematic factors for doing business in Croatia are still low efficiency of public administration, corruption, policy instability, tax rates, restrictive labor legislation, access to finance sources, tax policy, and poor work ethic of the national labor force (Ibid., 2013, p. 38).

According to the results of the research conducted by the Croatian Association of Employers, presented in the same report (Ibid., 2013, p. 40), the biggest obstacles to business operations are as follows: high taxes and contributions, inefficient public administration, unclear strategy for development of the country, inflexible labor legislation and insolvency.

According to research conducted by ACCA[83] (2010, p. 5), in Australia and the UK, accountants have been recognized as fundamental advisors to SMEs. Accountants already have built certain business relationships with SMEs which facilitate their breakthrough to the market of business and advisory services. Many managers emphasized the importance of trust as a basis on which a good business relationship with their accountants is built. According to this research, the main factor determining the demand for business advice is manifested through the personality of the business owner. Entrepreneurs who have high self-esteem and business skills rarely seek business advice, except in the case of unforeseen events that can have a significant impact on business. On the other hand, entrepreneurs who have a need to reconsider their decisions more often use services of business advisors.

Based on the results of the research[84] conducted by the Association of Management Consultants of Serbia (2010, p. 31) as answers to the following question: "Have you ever heard of a consulting company or an individual who works as a business consultant?" respondents listed a large number of consulting companies, but none of them were mentioned in more than 10% of cases.

This indicates that the consulting market is very disjointed – i.e. that a large number of insufficiently known consulting companies and independent consultants operate on this market. In addition, the difference in knowledge between those who use and those who do not use consulting services is large, which also indicates that the general familiarity with consulting companies, organizations and individual consultants is weak (Ibid, 2010, p . 31).

Conclusions

As the main obstacles to the successful development of their businesses, respondents identified the following factors: difficulties in the collection of receivables from debtors; complicated legal procedures that regulate the work and business operations of enterprises; high rates of taxes and contributions on wages; the negative impact of the global economic crisis; expensive and complicated procedures to obtain loans from commercial banks; strong competition in the industry branch in which the company operates; weak support of relevant institutions to the SME sector; high and unique VAT rate; complicated procedures for obtaining guarantees in guarantee funds; and not having quality standard certificates.

Difficulties in the collection of receivables from debtors has been identified as the primary factor that hinders business operations of enterprises in the RS. This means that the illiquidity of the economy is very high. The RS authorities have recognized this problem and in February 2014 adopted the Law on the unified system of multilateral compensation and cession ("RS Official Gazette", No. 20/14, 2014). The main goal of application of this law is to reduce illiquidity of the RS economy. It is therefore necessary to familiarize managers and entrepreneurs in the RS with the functioning of this system, the advantages and benefits that may result from the participation in the system. It would be entirely counterproductive to define high commissions to participate in the system and turn this instrument into an attractive source of income for the banking sector.

Development of the factoring market could reduce the illiquidity of the RS economy. According to data of the Central Bank of BiH (www.cbbh.ba), at the moment, only two companies[85] in BiH provide factoring services and both are located in the Federation of BiH, the other BiH entity. This means that in the RS there is no factoring company. Institutions should

[83] Association of Chartered Certified Accountants (London).
[84] The sample 1 consisted of 149 consulting companies, while sample 2 consisted of 154 companies, of which 120 were users and 34 the control group (Association of Management Consultants of Serbia, 2010).
[85] IGA (Export Credit Agency of BiH) and the First Factor Ltd. Sarajevo (author's note).

create conditions that would motivate the establishment of factoring companies by domestic and foreign investors. Quality and efficient sales policies that include optimal collection period, discount policy, fostering good working relationships with clients and building trust, may increase the level of recoverability. A large number of laws and procedures that govern the operation and management of enterprises deter successful business development. Performing obligations prescribed by the present laws takes time and money that could otherwise be productively utilized. It is therefore necessary to take measures that will lead to savings in time and money for businesses. Some of these measures may include the implementation of guillotine of regulations[86] at all levels of the RS, increasing the degree of use of the software (electronic tax declaration, electronic banking, online marketing, online communication with customers and suppliers, etc.), the maximum streamline of the process of opening and closing a business, and introduction of electronic signatures to reduce the use of printed documents in business correspondence.

In the RS, burden on labor with taxes and contributions is very high[87]. High rate of burden on labor affects the increase in overall unemployment and "motivate" employers to operate in a gray zone when it comes to the labor market. Therefore, we propose the application of a fiscal devaluation in the RS. Fiscal devaluation is the phenomenon of reducing the burden on labor while increasing taxes on consumption and luxury (VAT increase, the increase in excise tax and real estate tax). Shifting taxation away from labor would lead to employment growth and reduce gray areas in the market place of work. The resulting reduction in budget revenues and income funds can be compensated by systemic savings in the budget and reduction of the gray economy. The excess of employees which undoubtedly exists in the public sector should be redirected to work in inspection and in the industry. After a certain period of lower tax rates and contributions implementation, by performing extensive and comprehensive inspection, the gray sector would be reduced to the lowest possible level. In the situation of existance of a unique rate of VAT in BiH, the fixed exchange rate and the absence of monetary policy, fiscal devaluation can produce positive effects on the balance of payments because it simulates the effects of devaluation (increases the price of imported products because of the higher VAT rate, and reduces the price of export products due to lower labor costs, especially in labor-intensive production).

Tax exemption of entrepreneur’s payment of a portion of taxes and contributions in the first two years of operation can be positively affected by the increase in the number of start ups. This process is necessary to create mechanisms to protect and control how the entrepreneurs, after two years, would not reopen the company under a new name just because of the use of tax incentives.

The impact of the global economic crisis is recognized as the fourth factor to poor performance of SMEs. However, it is very difficult to quantify the impact of the global crisis on economic trends in the RS. Measures to reduce the negative effects of the global economic crisis can be confused with measures to improve the business and economic environment.

High interest rates on loans in the RS significantly hamper the funding of SMEs. The establishment of the Investment Development Bank of the RS (IRB RS) and the formation of favorable credit lines for certain groups of companies, somewhat reduced the negative effect of high interest rates. However, it is known that the interest rates on loans that are placed out of the

[86] Guillotine of regulations involves reducing the number of regulations (laws, procedures, rules) that regulate business enterprises (author's note).

[87] Total contributions amounts to 33% of gross salary. The income tax rate is 10%. The tax relief of 200 KM is applied. Catastrophic floods that hit the Republic of Srspka in May 2014 led to even bigger problems for businessmen. Among other things, the solidarity tax was introduced that was going to be paid by employers from contributions on wages with an additional 1,5% of the load on the workers wage and the workers themselves with an additional 1,5%. We do not quastion the justification for this decision. However, the economy was burdened even more and the question is how the prosperity can be reached with additional burdens on the economy (author's note).

IRB RS consist of output rates and margins of commercial banks. We believe it is necessary to exclude the commercial banks from the process of granting loans to reduce the final interest rate. Respondents in a huge percentage (80.91%) believe that it is necessary to exclude commercial banks from the process of granting loans of IRB RS to reduce the final interest rate. IRB RS may establish its own sector that would work with users and thus substitute the role of commercial banks in the process of granting loans. The new role of the IRB RS is likely to motivate commercial banks to reduce their own interest rates and simplify the procedures for obtaining loans.

From the analysis of data obtained from our research, we have seen a statistically significant difference between groups of companies with certain characteristics. On this basis, we propose the following:

- to create a business plan at the start of business operations of the company, as well as to create other planning documents (marketing plans, sales plans, procurement plans, staffing plans, project plans);
- to increase the level of managers' and entrepreneurs' participation at trainings and seminars, both in-house trainings and trainings organized by organizations and institutions which are providing both formal and non-formal education.
- relevant institutions and organizations should increase the availability of high quality provided trainings and seminars and that their availability is evenly allocated regionaly;
- to introduce professional management in the companies when qualifications and abilities of the founder are not sufficient to take the company through several phases of the life cycle of the company;
- to increase the level of using information technologies in business;
- investment in consulting services should be seen as an investment, not as an expense;
- enabling and motivating companies to become members of clusters in sectors where this is possible.

Analysis of the results obtained from our research and comparison with the results of other empirical researches has enabled the realization of scientific and social objectives of this paper. Based on the literature review and analysis of the results of empirical research, we prove the proposed hypotheses and conclude that the reduction of shutdowns, i.e. the number of closed SMEs will contribute to the advancement of the economy of the RS and BiH, which will be manifested through employment growth, increased economic growth and the growth of domestic and foreign investments.

In what way is it possible to align the education system in the RS and BiH to the needs of the labor market? Will the SME sector gain support and conditions required for continued growth and development from the competent institutions? What needs to be done in order to create conditions for creating advanced instruments of financial and non-financial support to the SME sector in our country, as well as in the world?

These are just some of the many questions that need to be answered in the future.

Literature

1. ACCA. (2010). Business Advice to SMEs: Professional Competence, Trust and Ethics. Research report 119. http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/rr-119-001.pdf (accessed 06/29/2015)
2. Acs, Z. (2006). How Is Entrepreneurship Good for Economic Growth? *Innovations: Technology, Governance, Globalization.* 1(1), pp. 97-107.
3. Adriano, J., Fernandes, P., Sampaio, H. and Lopes, J. (2013). Academic EntrepreneurshipFramework: The Best Practices of Braganca Polytechnic Institute, In Ferreira, J.M., Raposo, M., Rutten, R. and Varga, A. (Eds.), *Cooperation, Clusters, and Knowledge Transfer*, ch. 9 (pp. 163-177). New York, USA: Springer Link.
4. APIF – Intermediary Agency for IT and Financial Services. (2012) APIF data base. http://www.apif.net/index. php# (accessed 02/10/2015)
5. Association of Management Consultants of Serbia. (2010). Short review of business consulting in Serbia. http://www.amcserbia.rs/slike_fck/Final%20documents/Pregled%20poslovnog%20konsaltinga%20u%20Srbiji,%20Izve%C5%A1taj.pdf, (accessed 06/25/2015)
6. Audretsch, D. and Thurik, A. (2000). Capitalism and Democracy in the 21st Century: From the Managed to the Entrepreneurial Economy. *Journal of Evolutionary Economics*. 10(1), pp.17-34.
7. Austrian Development Agency. (2011). Economy burden analysis in Bosnia and Herzegovina. http://www.upfbih.ba/attachments/article/182/Analiza%20bos%20verzija.pdf, (accessed 05/19/2015)
8. Balling, M., Bernet, B. and Gnan, E. (2009). Financing SMEs in Europe, SUERF – The European Money and Finance Forum Vienna. http://imap.suerf.org/download/studies/study20093.pdf (accessed 04/27/2015)
9. Barre, X. (2005). *Problems of SME financing in Russia*. Moscow: Russian-European Centre for Economic Policy.
10. Burk, J.E. and Lehmann, R.P. (2006). *Financing your small business*. Naperville, Illinois: Sphinx Publishing.
11. Carree, M.A. and Thurik, A.R. (2003). The Impact of Entrepreneurship on Economic Growth. *Handbook of Entrepreneurship Research International Handbook Series on Entrepreneurship* . Volume 1, pp. 437-471
12. Carnazza (n.d.). The Role and the Main Developments of SMEs in the European Economy. UEAPME. http://www.ueapme.com/IMG/pdf/The_role_and_the_main_developments_of_SMEs_in_the_European_economy_without_Annex.pdf, (accessed 06/19/2015)
13. Central Bank of B&H. (2014). Foreign Direct Investment (FDI) in Bosnia and Herzegovina. http://www.fipa.gov.ba/informacije/statistike/investicije/default.aspx?id=180&langTag=en-US (accessed 07/08/2015)
14. Chittithaworn, C., Islam, A., Keawchana, T., Yusuf, D. (2011). Factors Affecting Business Success of Small&Medium Enterprises (SMEs) in Thailand. *Asian Social Science*, (7) 5, pp. 180-190.
15. Commission of the European Communities. (2008). Towards world-class clusters in the European Union: Implementing the broad-based innovation strategy. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0652:REV1:EN:PDF (accessed 06/11/2015)
16. Cochrane, A.B. (1981). Small Business Mortality Rates: A Review of the Literature. *Journal of Small Business Management, 19*, pp. 50-59.
17. Corman, J. and Lussier, R.N. (1996). *Small Business Management: A Planning Approach*, USA: Irwin.
18. Ćudić, B. (2012). Venture capital funds. *Finrar*, 11.

19. Deakins, D. (1996). *Entrepreneurship and Small Firms.* McGraw-Hill.
20. Development policy center of SMEs and entrepreneurship. (2012). Report on SMEs in Croatia – 2012. http://www.cepor.hr/SME%20godisnjak_2013.pdf (accessed 06/24/2015)
21. Development policy center of SMEs and entrepreneurship. (2013). Report on SMEs in Croatia – 2013. http://www.cepor.hr/Izvjesce%20o%20malim%20i%20srednjim%20poduzecima%202013_CEPOR.pdf (accessed 06/24/2015)
22. Drucker, P. (1991). *Innovation and Entrepreneurship: Practice and Principles.* Second edition. Belgrade: Grmeč.
23. Erastus, Y., Stephen, A., Abdullai, I. (2014). Institutional Framework for Promoting Small and Medium Scale Enterprises in Ghana: Perspective of Entrepreneur. *Australian Journal of Business and Management Research.* 3 (10), pp. 28-45.
24. Erić, D., Beraha, I., Đuričin, S., Kecman, N., Jakišić, B. (2012). *Small and medium enterprises financing in Serbia*. Belgrade: Chamber of commerce and industry of Serbia.
25. European Commission (2014), COSME, http://ec.europa.eu/enterprise/initiatives/cosme/index_en.htm (accessed 05/19/2015)
26. European Commission. (2014). Annual report on European SMEs 2013/2014. http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2014/annual-report-smes-2014_en.pdf (accessed 06/10/2015)
27. European Commision (2013). Annual report on European SMEs 2012/2013. http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2013/annual-report-smes-2013_en.pdf (accessed 06/09/2015)
28. European Commission. (2011a). Bussiness Dynamics: Start-ups, Bussiness Transfers and Bankruptcy. Bruxelles. Final Report (accessed 06/12/2015)
29. European Commission. (2011b). Innovation Union Competitiveness Report 2011. http://ec.europa.eu/research/innovation-union/pdf/competitiveness-report/2011/chapters/part_iii_chapter_1.pdf (accessed 06/15/2015)
30. European Commission. (2010). EUROPE 2020: A Strategy for Smart, Sustainable and Inclusive Growth. Communication from the Commission, COM(2010)2020
31. European Commission (2008). Innovation Clusters in Europe: A statistical analysis and overview of current policy support. http://www.central2013.eu/fileadmin/user_upload/Downloads/Tools_Resources/Cluster.pdf, (accessed 07/10/2015)
32. European Commission (n.d.). Mezzanine Finance. Final Report.
33. EVCA (2014). Annual Report 2013/2014. http://www.evca.eu/media/166016/annual_report_2013-2014.pdf (accessed 10/17/2014)
34. Fotopoulos, G. (2012). Nonlinearities in regional economic growth and convergence: the role of entrepreneurship in the European Union regions. *The Annals of Regional Science*, 48(3), pp. 719-741.
35. Frank, H., Kessler, A., and Fink M. (2010) Entrepreneurial Orientation and Business Performance: A replication study, in SBR, 62, April 2010, pp. 175-198.
36. G. T. Lumpkin and Gregory G. Dess. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review,* 21(1), pp. 135-172.
37. Grover, A. and Suominen, K. (2014). 2014 Summary – State of SME Finance in the United States. White paper, Trade up.
38. Hall, C. (2007). When the dragon awakes: internationalisation of SMEs in China and implications for Europe, CESifo Forum 2/2007

39. Harvie, C., Narjoko, D. and Oum, S. (2013). Small and Medium Enterprises' Access to Finance: Evidence from Selected Asian Economies. ERIA Discussion Paper Series. http://www.eria.org/ERIA-DP-2013-23.pdf (accessed 05/15/2015)
40. IBGE (2007). Sistema IBGE de Recuperação Automática – Banco de Dados Agregados, Industria. http://www.sidra.ibge.gov.br/bda/tabela/protabl.asp (accessed06/18/2015)
41. International Finance Corporation (IFC). (2010). Scaling-Up SME Access to Financial Services in the Developing World, Washington, D.C.: World Bank. http://www.gpfi.org/sites/default/files/documents/G20_Stocktaking_Report_0.pdf>, (accessed 04/13/2015)
42. Ivanović, V. (2010). *Possibility of development of youth entrepreneurship in the Republic of Srpska and Bosnia and Herzegovina.* Unpublished master's thesis. Banja Luka: University of Banja Luka, Faculty of Economics
43. Jennings P. L. and Beaver G. (1995). The Management Dimension of Small Business Failure. *Journal of Strategic Change*, 4, pp. 185 - 200.
44. Kecman, B. (2010). *Entrepreneurial education as a function of SMEs development.* Prijedor. Digitalair. Ltd.
45. Levchenko, M. (2008). EU-Russia cooperation. Mutual benefits for SMEs in framework programs. Unpublished Bachelor theses, Jyvaskyla University of applied sciences.
46. Liu, J. and Pang, D. (n.d.). Determinants of survival and growth of Listed SMEs in China. http://www.efmaefm.org/efma2006/papers/797614_full.pdf (accessed 13/4/2015)
47. Loewen, B. (2011). Formal and informal learning – analysis and perspectives. GIZ.
48. Mello, P. and Valle, M. (n.d). The entrepreneur and internationalization of small and medium sized enterprises in Brazil. http://www.ead.fea.usp.br/semead/10semead/sistema/resultado/trabalhosPDF/206.pdf, (accessed 06/26/2015)
49. Miles, N., Wilkinson, C., Edler, J., Bleda, M., Simmonds, P. and Clark, J. (2009). The wider conditions for innovation in the UK: How the UK compares to leading innovation nations. NESTA Index Report. London: NESTA.
50. Statistical Office of the Republic of Serbia. (2013). Enterprises in Serbia accoriding to its size, 2012. Working paper. http://webrzs.stat.gov.rs/WebSite/repository/documents/00/01/10/91/RD_82_Preduzeca-2012.pdf (accessed 06/10/2015)
51. OECD. (2015). Financing SMEs and Entrepreneurs 2015: An OECD Scoreboard. OECD Report to G20 Finance Ministers and Central Bank Governors.
52. OECD. (2014). SMEs and the credit crunch: Current financing difficulties, policy measures and review of literature, by Gert Wehinger. http://www.oecd.org/finance/SMEs-Credit-Crunch-Financing-Difficulties.pdf (accessed 06/15/2015)
53. OECD. (2013). Financing SMEs and Entrepreneurs: An OECD Scoreboard Final Report, https://www.google.ba/#q=OECD.+(2013).+Financing+SMEs+and+Entrepreneurs%3A+An+OECD+Scoreboard+Final+Report (accessed 03/18/2015)
54. Office for National Statistics of UK (2014). Self employed workers in the UK – 2014. http://www.ons.gov.uk/ons/dcp171776_374941.pdf (accessed 05/24/2015)
55. Open Society Fund Bosnia and Herzegovina. (2013). Economic Development- Policies for Small and Medium-Sized Enterprises. http://www.vpi.ba/upload/documents/privredni_razvoj_en.pdf (accessed 03/15/2015)
56. Peacock, R. (2000). Failure and assistance of small firms. http://www.sbeducation.info/downloads/sbfail.pdf (accessed 05/18/2015)
57. Petković, S. and Berberović, S. (2013). *Economics and Management of Small and Medium Sized Enterprises. Principles and Policies*. Banja Luka: University of Banja Luka, Faculty of Economics of. ISBN 978-99938-46-52-9.
58. Petković, S. and Tešić, J. (2013). SMEs and Entrepreneurship Development and Institutional Support in Republic of Srpska (Bosnia and Herzegovina). In Ramadani, V. and Schneider,

R.C. (Eds.), Entrepreneurship in the Balkans. Diversity, Support and Prospects (pp. 293-315). New York, Heidelberg, Dordrecht, London: Springer Link. ISBN 978-3-642-36577-5, DOI 10.1007/978-3-642-36577-5.

59. Petković, S. (2010). Small and medium-sized enterprises in the function of economic performance (projected on the Republic of Srpska). Unpublished Ph.D. thesis. Banja Luka: University of Banja Luka, Faculty of Economics.
60. Ramadani, V. and Dana, L.P. (2013). The State of Entrepreneurship in the Balkans: Evidence from Selected Countries, in V. Ramadani and R.C. Schneider (eds.), Entrepreneurship in the Balkans, Verlag, Berlin, Heidelberg: Springer.
61. Republic of Srpska Government (2012). Annual Report to the field of SMEs and crafts and entrepreneurial activities in the Republic of Srpska in 2011. http://rars-msp.org/sr-Cyrl-BA/publikacije/izvjestaj/ (accessed 05/17/2015)
62. Republic of Srpska's Official Gazette number 20/14 (2014). Law on the unified system of multilateral compensation and cession.
63. Riderstale, J. i Nordstorm, K. (2004). *Funky business. Talent makes, capital dance*. Belgrade: Plato.
64. Rigtering, J.P.C., Kraus, S., Eggers, F. and Jensen, S.H. (2014). A comparative analysis of the entrepreneurial orientation/growth relationship in service firms and manufacturing firms. *The Service Industries Journal*, Vol. 34, No. 4, pp. 275-294.
65. Say J. B. (1885). *A Treatise on Political Economy*. Philadelphia: Lippincott pristupljeno preko Library Economics Liberty. http://www.econlib.org/library/Say/sayTCover.html (accessed 05/23/2015)
66. Schumpeter, J. (1934). *The Theory of Economic Development*, Cambridge Mass: Harvard University Press.
67. Trivić, J. and Petković, S. (2015). Different Features of Transition Economies-Institutional Matter. In Dana, L-P. and Ramadani. V. (Eds.), Family Businesses in Transition Economies. Management, Succession and Internationalization (pp. 71-96). New York, Heidelberg, Dordrecht, London: Springer International Publishing.
68. Unlocking business potential, especially of SMEs. (2009). http://cor.europa.eu/en/documentation/studies/Documents/Unlocking_Business_Potential_SMEs.pdf (accessed 06/29/2015)
69. USAID. (2013). How does enterprises use factoring. Case studies. http://policycafe.rs/documents/financial/research-and-publications/faktoring/Faktoring%20studije%20slucajeva.pdf, (accessed 06/20/2015)
70. Vasilescu (2008). Business incubators in CEE countries – New Coordinates for Development, Annals of University of Craiova – Economic Sciences Series, University of Craiova, Faculty of Economics and Business Administration, vol 2(36), pp. 674-684. http://feaa.ucv.ro/AUCSSE/0036v2-016.pdf (accessed 18.05.2015.)
71. Wennekers S., van Stel A., Carree M., Thurik R. (2010). The relationship between entrepreneurship and economic development: is it U-shaped? Found Trends Entrepreneurship 6, 167–237.
72. Wennekers, A.R.M., Van Stel, A. J. Carree, M.A. and Thurik, A.R. (2010). The relation between entrepreneurship and economic development: is it U-shaped? *Foundations and Trends in Entrepreneurship*, 6(3), pp. 167-237.

PRICE COMPETITION IN THE TELECOMMUNICATIONS INDUSTRY IN THE REPUBLIC OF MACEDONIA

Nexhbi Veseli

Nada Gjolevska

Abstract

Price is without a doubt one of the main elements in contemporary market economies when it comes to gaining and maintaining the much needed edge over competition. In the case of the telecommunications industry in the Republic of Macedonia the price could be discussed , apart from assortment which has been the decisive factor in ensuring competitive advantage since the market got deregulated over a decade ago. In fact, in Macedonia just like elsewhere in the world, the telecommunications industry drastically has changed everyday life. The deregulation of the telecommunication industry in the Republic of Macedonia had a rather huge impact on prices. Each of the new market entrants had a serious impact on prices in terms of pressuring the existing companies to lower prices in order to maintain their market share. In fact, usage of dumping prices has not been an unfamiliar concept for companies functioning in the telecommunication industry in the Republic of Macedonia. Perhaps this is the main reason why some of the major players in the industry functioned with losses for the first couple of years on the market. On the other hand, people owning and using more than one cell phone number is also not a rare phenomena in the Republic of Macedonia. The objective of this paper is to offer an analysis of the price and its importance for the growth of the telecommunications industry in the Republic of Macedonia.

Key words: *price competitiveness, market, demand and supply*

Introduction

Subject of this research is analysis of the price competitiveness between companies on the domestic market because offers on its participant's possibility for achieving profit and gives base for stability and growth of a company. Field where we put effort for revolution, innovation and getting competitive advantage of the companies and successful positioning, it is the market which is basic and most important source of information required for continual effective working in the business world.

Companies take part in the market economy to satisfy the customer's needs on prices ready to pay for particular good or service, but at the same time strive to achieve maximal profit. Market orientation positions the selling policy in the center of attention, because it serves as coordinator of other functions and because of that companies should effectively and efficiently use the elements from the marketing mix for successfully positioning on the market.

We live in a period where most of the time is spend on phone or internet, for private as well as business aims. Following the innovation services with prime quality, world trends and consumer requirements lead to strong competition and price battle between companies on the domestic market. Because of that telecommunication industry is the case analyzed in this research, because the aim is to determine the role of the competition in formation of the price between companies which cover the telecommunication service market in the Republic of Macedonia.

With the research we got important and relevant information for which if the change of the prices has impact on the customer change, or if the consumers have trend of changing the operators or are they loyal to one company, because telecommunications is industry prone to fast and considerable innovations. The results give clear picture for possibilities and restriction of the companies which offer same or similar products and services, in this particular case telephony, which developed from monopoly position, after entering of the second operator and strong competence with the third operator. From consumer point of view, benefits for the consumers are bigger, and that is result of more affordable prices, service and products offered from the companies, concerning that consumers' right have central position in company policy.

I. Price Conception

1. Concept, Meaning of Prices and Price Policy.

The price is an abstract concept, as proof of that there are the big number of considerations from many economists. Because its broad meaning the term price can be understood in narrower and broader sense, because all goods and service launched on the market have price as well as own single value. Hence, due to the different considerations in broad sense everything around us, concerning the price given to the athletes, employee's payment in the company, taxes paid by residence of one country and expenses of the modern living in one society of all natural and legal entities is price.

In broader sense the price is the amount of money paid for one good or service, or amount of all values which consumer change for achieving benefit from the use of the good or service (Kotler e al, 2009).

Analogously to the above mentioned it is required to mention that price is one the elements of the marketing mix, because from itself has not got any meaning without other elements and mutual coordination.

- The meaning of the price in one economy appears in many shapes and can be examined from many aspects: *(Veseli, 2009)*

- Price is monetary term of the value for particular good or service
- Price is amount of money for which the consumer is ready to pay on the opposite side for particular product or service.
- Price is the value and quantity for which is changed one good for another.
- Price is the balance between the offer and demand expressed in money.
- Price is one type of economical-social relation between the buyer and seller in form of change goods for money;

Price of the companies means increase of the profit, or maximization of the current profit, but also measuring refers the quality of the goods and services offered by the market.

II. Analyses of the Price Competiveness between the Telecommunication Companies- Case T-mobile, One and VIP from 2008-2013

1. Defining the Problem

The consumer is in the center of attention and satisfying his needs makes the market field for competition between the companies. In conditions when on the market there is a strong competition, the price which has considerable impact on the consumers, but also on companies which need to make profit and at the same time are ready to pay for particular good or service, considering the average income per capita in the Republic of Macedonia.

Telecommunication industry is expanding, because consumer's needs are changing, and that is result of the fast life beat and need of fast, effective, efficient communication due to the consumer's engagement, for instance, people communicate with their closest friends via "smart" phones, employers conduct Skype interviews and etc.

Almost completely we exterminate the mail and replace with" e-mail" which is used as a mean for written communication, except for business or private people, which the Internet or excellent net coverage of smart phones consider necessary. Result of these aspects is increased competition between companies which serve on the Macedonian market with constantly improving of the service and innovation offers for better positioning and attracting consumers.

This analysis is conducted with aim to determine the role of the price in consumer's perception in using particular operator and formation of the companies' price in terms of competition.

The market in the Republic of Macedonia is covered by three telecommunication companies and they are:

[88]T-Mobile Macedonia AD Skopje is the first mobile operator and market leader for mobile telephony which works since September 1996 under the name Mobimak, but on September 7th 2006 was re-named and became part of Deutsche Telecom Group. Today it has over 1, 2 million customers or 48, 62 % market share.

[89]One AD Skopje is mobile operator which entered as second in the mobile market in the Republic of Macedonia since 2003 under the name "Cosmofon", but on November 11th 2008 changed the brand in One and became part of Telecom Slovenia Group and it is the first operator

[88] Information are undertaken from www.t-mobile.mk
[89] Information are undertaken from www.one.mk

in the country which offers complete telecommunication services and positioned as technological leader and innovator and it has 500.000 customers, or 23,06 % from the market share.

[90] Vip is the third operator which has entered in the Macedonian market since 2007 and it is a member of Telecom Austria Group. The main company motto for market competitiveness is the best offer for unlimited communication. Vip is presented as innovation leader with new technologies and services and made real market competitiveness in this area. In 2011 became second mobile operator according the customer's number in Republic of Macedonia and counts over 630.000 or 28, 32 % of the market share.

From the information which the companies applied it is clear the problem for which we like to get information which will be considerable and relevant, and they refer to the customer's loyalty, who the price affects the customer's number, company profitability and etc. With the results we will notice the possibilities and restrictions of the companies, because the market nature of the telecommunication services is changeable, T- Mobile was company monopoly which established high price and customers didn't have other choice, than with the second operator terms has changed and companies follow the procedures of the competitor, while with entrance of the third operator created strong competitiveness or war among the companies for attracting customers with better offer.

With examination of particular number of examinees and conducting financial results in the last six years, that will form conclusion for the state on the telephony market in the framework with determined goals and tested hypothesis. This period is chosen because since the beginning of 2008 all three companies have covered the Macedonian market.

[90] Information are undertaken from www.vip.mk

2. Research Project

2.1 Sources and Data

For this research are used: **primary and secondary data.**

The primary data are taken directly from the users to analyze their opinions, attitudes, needs, behavior and expectations in the process of using mobile operators.

Secondary data are gathered from internal company's basis, public institutions and internet sources.

2.2 Methods of Data Collection

Primary data are gathered by method of survey. Using of structural survey with formal list of question on which examiners answer on the same way. The data is gathered personally or by phone.

For secondary data it is used historical method or method of direct data because the data has already existed and it is combined with statistical and dynamic approach.

2.3 Forms of Data Collection

Data are collected through closed dichotomy questions and closed questions with multiple choices. The questions are objective, clear, simple with logical order, from them you can get answer for the determined objective and make conclusion for dynamic approach.

2.4 Sample Method

For the survey is used representative sample (helped by the student from the Faculty of Business and Economy, SEEU-Tetovo) from 700 examinees randomly chosen from the cities in Republic of Macedonia, customers of one of the three operators. All examinees are majors on age above 18 year due to the possibility of number registration, no sex difference, because as variable doesn't affect the research objective.

3. Analysis and Data Interpretation of the Questionnaire

After realization of the representative sample, it has been made analysis of the questionnaire data. Results represented are from the second, third and fourth question category. The first category is not represented because it is related to the basic data from the examinees and as that did not have effect on solving the problem. The results got from the research are the following:

- ***Numerical and percentage results of the examinees' attitude for prices and quality that companies offer***

1. Company's prices in comparison with the incomes in the Republic of Macedonia are:	Number of examinees	Percentage participation
High	270	38,57%
Medium	240	34,28%
Satisfying	170	24,28%
Low	20	2,85%

2. Which was the key factor in choice of the operator?	Number of examinees	Percentage participation
Quality	140	20%
Price	230	32,85%
Both factors	330	47,14%

3. Services provided by the operator as a customer:	Number of examinees	Percentage participation
Completely fulfills your expectations	250	35,71%
Partially fulfills the expectations	380	54,28%
It does not fulfills the expectation	70	10%

Table 1,2 and 3 display examinees' attitudes for the prices of the companies where 38,57% think that prices are high in relation to the average incomes in the Republic of Macedonia, 34,28% think that prices are neither high nor low, 24, 28% are satisfied with the prices, and considerably small number , or 2,85 % say that prices are low. In the second table examinees' say about the factors of decision in operator choice, 47, 14% choose on basis of two factors under influence of one factor, price versus quality, we have the following results, 85 % versus 20 %. The satisfaction degree from examinees' expectation is completely 35, 71%, while 54, 28 % are partially satisfied from the offered and real service, and small number of examinees is not satisfied from the offer.

4. Packages offered by the company are for business customers with acceptable price and they offer quality for business decisions: (answered only business customers, total 300)	Number of examinees	Percentage participation
Yes	190	63,33%
No	30	10%
Partially	80	26,66%

Business customers are more satisfied than private, or 63, 33% answered with yes; partially satisfied are 26, 66%, while 10 % are not satisfied.

- ***Numerical and percentage results from the examinees' attitudes for the operator competence and operator advantage***

1. What attract your attention to become operator customer?	Number of examinees	Percentage participation
Convincing marketing campaign	150	21,42%
Stability of the company	210	30%
Lower prices from the competence	340	48,57%

2. If the operator increase the service's price which offers will you replace with the competitor who offers lower price?	Number of examinees	Percentage participation
I don't change, I am a loyal customer	250	35,71%
I will change, company which offers lower price is my primary choice	450	64,28%

3. Does the company which you are a customer offers benefits, awards?	Number of examinees	Percentage participation
Yes, often	300	42,85%
Sometimes	250	35,71%
Very rarely	90	12,85%
Never	60	8,57%

Second category of questions was imposed to test customer's attitudes for the company in terms of competence, and the results are the following: almost half of the examinees were attracted to become operator customers due to the lower prices of the competitor, 30 % were attracted by the company stability, or reliability and protection of the customer and 21, 42 % were attracted by the convincing marketing campaign. On the question do examinees change the operator if the price increase even 64, 28% answered positive, but only 35, 71% are loyal customers. Even half of the examinees answered that company offers discounts, benefits and it's socially agreed, while the others have split attitudes.

- ***Numerical and percentage results from examinees' attitudes for the strategies used by the operators and formation of prices and market positioning***

1. According to your vision does the company invest in researching and development for better positioning and segmentation on the Macedonian market?	Number of examinees	Percentage participation
Yes	570	81,42%
No	130	18,57%

2. Do you consider that the company uses strategies for differencing the services?	Number of examinees	Percentage participation
Yes	590	84,28%
No	110	15,71%

3. Positioning of the company depends from:	Number of examinees	Percentage participation
Benefit that is offered to the customers	100	14,28%
Prices that are paid	180	25,71%
Quality of the products and services	270	38,57%
Combination of the marketing mix elements	150	21,42%

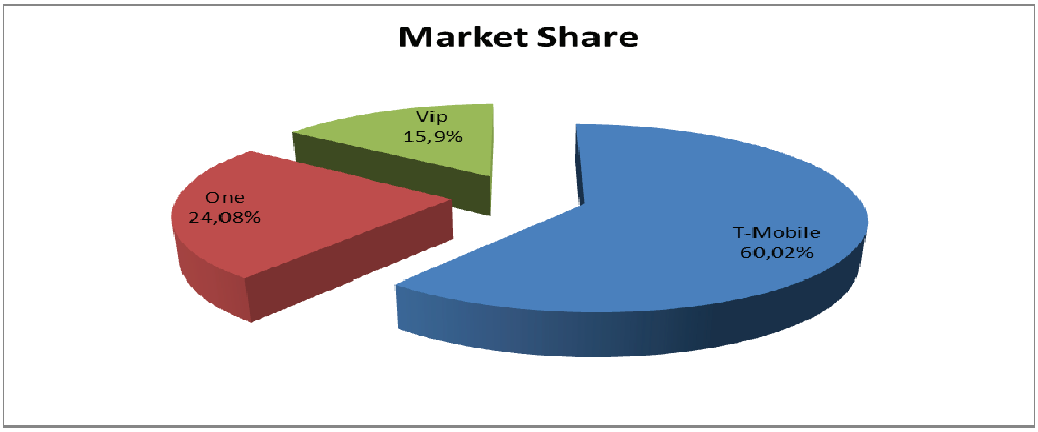
Almost all examinees consider that the company invests in research and development and makes effort for better position, and only 18, 57% gave negative answer. The same case of answers is for the question of the services used by the examinees are differentiated, or 84, 28% answered with yes and 15, 71 answered with no. On the question from which depends positioning of the company the examinees have different attitudes, but the most dominate quality of the products and services with 38, 75%.

The data got from the questionnaire give us clear picture for the customers' attitudes in relation to the prices formed by the mobile operators, quality, and competence and positioning. The same are used for formulation of the report and together with the data from secondary sources are taken important conclusions which are in benefit for companies' decision and explain the hypothesis which are tested.

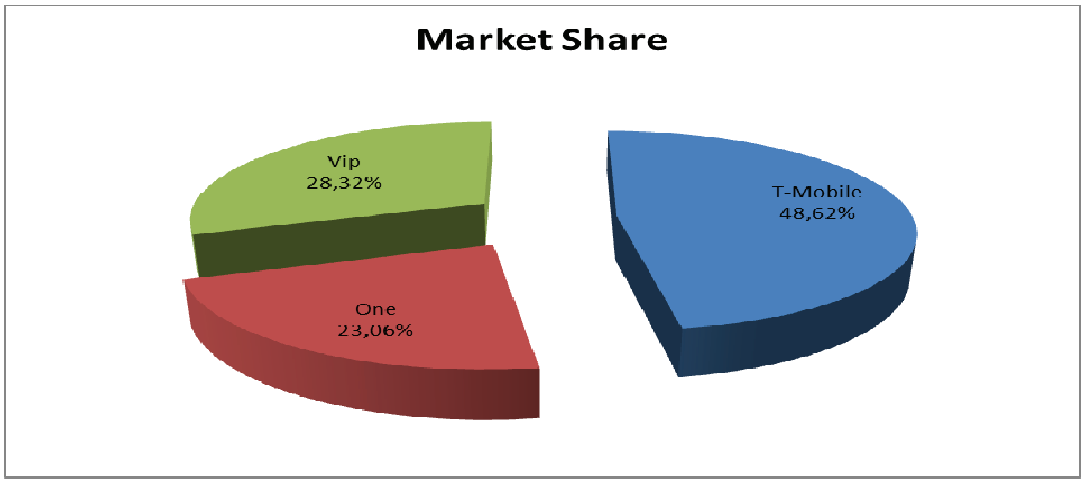
4. Statistical Data from 2008-2013

To answer the questions which are subject of this research, apart from the analyses of the questionnaire, it is necessary the analyses of the companies' statistical data.

1. Annual report of shares of the three operators on the market 2008-2013



Pie chart no. 4-1 Market share of the operators in 2008



Pie chart no. 4-2. Market share of the operators in 2013

Source: www.aek.mk

The applied annual reports are conducted by the Agency for Electronic Communication. Here the share data are applied of the three telecommunication operators, from which you can see that T-Mobile is the market leader with shares of 48, 62%. One takes part with 23,06%, while Vip takes part with 28,32% and it is second operator in the Republic of Macedonia, but compared with 2008 T-Mobile decreased its shares on the market which than was 60,02% on the market. The benefit is on Vip operator which with strategies of lower prices ménage to become second on the market with increase of 15,9% to 28,32. One operator obviously does not apply good strategies for acquiring competent advantage and increasing the market shares and there is an increase of 1.02%. According to the market shares, from second telecommunication operator, get to the third place on the Macedonian market.

5. Report from the Research

According to the measuring value after conducted statistical processing of the primary data from the questionnaire and secondary data from the companies, Agency for the Electronic Communications and State Statistical Office pursuant to the determined objectives, subject of the research and determined hypothesis the following conclusions are following:

- Prices formed by the telecommunication companies are relatively high in relation to the income per capita, but customers in the choice of the operator despite the price they give big importance to the meaning and quality.

- There is a strong competence because the customers do not have loyalty trends to the operator, attracted by the lower prices and satisfaction is not complete in comparison to the promised offer and value.

- The customers are aware for social responsibility of the operator and investment in the research and development for better position and differentiation of the services, but that confirms that competence is high and they should form the price, the companies make effort to satisfy the demands of the customers and better the service.

- Examinees have split opinions for facts from which depend company position and analogously on that the combination of all elements is the most appropriate for positioning and increasing the market holdings together with offering the high quality services.

- Statistical data in period of six years is proof that strategies for entering the market with penetrating prices succeed to increase the market share, that was made by the Vip operator which offered relatively low prices for pre-paid and post paid costumers, or at the beginning do not decide for following the market leader, and with that succeeded to increase the market holdings and to became second mobile operator on the Macedonian market.

- In the last year, the number of customers is decreased and price war lead to decreasing the company benefits, or when T-Mobile was the only company on the market with telephone offer that achieved bigger benefit, there is no analyzes for the competiveness and menace of entering new competitiveness was big, but it could not long sustain the barrier for entrance. With entrance of One in the market, and then Vip, operators determine the prices on the basis of the competence and together act reasonably, form "fair" prices not to increase the profit, because minimal difference lead to losing the customers.

Established and analyzed hypothesis from the research,

- The price as a factor impacts on positioning the companies on the market;

- Combination of the market mix elements affects on the company success on the market;

- Price war between the competences affects on decreasing the incomes in the mobile telephony;

As a result of the credibility and representativeness of the model for statistical processing and theoretical understanding are completely accepted.

CONCLUSIONS AND RECOMMENDATIONS

1. Research Findings

From this paper we can conclude that price competiveness is determinant from which depend profitability and positioning of the companies on the Macedonian market. The price is one of the elements of the marketing mix and it has importance in coordination with other elements. Price policy used by the companies and the role of the competence during formation, factors which have impact on marketing policy and formation of company's prices, precisely defined objectives and use of actual method for formation of prices and strategies used by the companies for formation competitive advantage with price concept determined each company for successful and profitable working. Price of the company means increased profit, or maximization of the current profit, but also tells the value of the product quality or services offered by the market.

The policy used by the companies is necessary to be rational, which means elasticity on longer period. It can be changeable on changed market conditions which can be identified throughout continual analyze in the company working period and use of alternative strategies. In the 21st century the market is bigger, offer of goods and services is increased enormously, also customer's needs and because of that companies need to be prepared on constant changes in the image opinion, not to have enormously increase or decrease of the prices. Decisions made by the companies for determination of the prices caused by internal factors in the company, as the marketing objectives, marketing strategies, organization for particular prices and external outside factors, nature of the market and demand, competence, economy in the country, government regulation, social aspects and etc.

Marketing objectives are formed differently depending from the activities of the company and market nature. Short term objectives are defined on the manner which enables achievement of long term, or they are activity chain for particular time period with objective to achieve long term efficiency through business strategy and in that context it is necessary mutual balance and coordination.

Objectives which are realized through prices from companies can be different, as maximization of the profit, providing existence of the company, increasing or maximization of the market share, service differentiation, sustaining profitability, liquidity and etc. Companies that are competitive orientated it is necessary to analyze the competitive objectives and make adequate future predictions.

After marketers will make relevant analyzes and make rational analyzes it is decided for the choice of most adequate method for price formation relating of the market nature, targeted segments and other internal and external factors. The prices are determined based on working expenses, offer and demand, competence and etc. The methods oriented to competition are determinate on the markets where customers where value estimation of the products or services are based on the price basis of the competence. The company may decide for following the market leader, determination of the current prices and policy for premium prices, sealed for bidding and closed offers.

Strategies used by the companies are created to fulfill the determined objectives, but unique and complexity for copying makes the strategy sustainable and competitive. Acquiring competitive advantage can be realized through satisfaction of customers' needs better than competitive companies. It is necessary companies to compare products prices or services, distribution channels, production capacities and manner of promotion of competence. With comparison companies can identify areas where they can achieve competitive advantage or areas

where they are weaker. For acquiring of competitive advantage companies create information inquiring system through which comes to information to competent movies. Starting from benefits offered by the analysis, company can make stronger marketing campaign and make scheme for defense potential activities of the competence.

The rivalry among the permanent competitors, thread of new competitors, negotiator power of buyers, supplying and threat of substitutes determine the industry attraction of one national market. Following the innovation services with supreme quality, world trends and customer's need lead to strong competence and price war among companies in mobile industry and make very attractive for investigation.

Prediction in relation with the analysis of this industry determined and gives base for further investigation. The market offers terms for increasing the competence, entrance of the companies in the new marker and increasing the market segments. If on the market enter additional operator it is necessary analyzes for price competence and permanent companies, annual benefits which will be achieved in future and market share

References

1. Aveni R., (2002). *The Empire Strikes back Counterrevolutionary strategy for Industry Leaders,* Harvard Business Review;
2. Biema M., Greenwald B., (1997). *Managing our way to higher service – sector productivity,* Harvard Business Review;
3. Cooper D., Schindler P., (2002). *Business Research Methods,* 8th edition, McGraw – Hill Irwin;
4. Стојковска Л., Жупановска Е., (2011). *Маркетинг*, Скопје: Графички центар дооел);
5. Gale B., (1994). *Managing Customer Value,* New York: The Free Press;
6. Haugen R., (2001). Modern Investment Theory, 5th edition, New Jersey: Prentice Hall;
7. Hayes M., Jenster P., Aaby N., (1996). *Business Marketing,* Burr Ridge, IL: Richard D. Irwin;
8. Heskett J., Sasser W., Hart C., (1990). *Service Breakthroughs,* New York: Free Press;
9. International Herald Tribune, (2008). *For Cellphone Makers, The Fight Is for Second Place*;
10. Јаќовски Б., (2002). *Маркетинг*, 6-то изменето и дополнето издание, Скопје;
11. Јаќовски Б., (2002). *Маркетинг менаџмент*, Skopje;
12. Јаќовски Б., Ристовска С., (2006). *Маркетинг политика на цени*, второ изменето и дополнето издание, Скопје;
13. Kasper, Wolfgang, (2008). *Competition*, "In Davis R. Henderson". Concise Encyclopedia of Economics, 2nd edition, Indianapolis: Library of Economics and Liberty;
14. Kotler P., (1990). *Kotler on Marketing,* Upper Saddle River, NJ: Prentice Hall
15. Kotler P., (2003). *Marketing insights from A to Z,* John Wiley & Sons, Inc.;
16. Kotler P., Armstrong G., (2000). *Principles of Marketing,* Prentice Hall;
17. McCarthy J., (1960). *Basic marketing, a managerial approach,* Homewood, III., Richard D. Irwin;
18. McDaniel C., Gates R., (2005). *Marketing Research Essentials*, 5th edition, John Wiley & Sons;
19. Nagle T., (1987). The Strategy and Tactics of Pricing: A Guide to Profitable Decision – Making;
20. Nagle T., Holden R., (1995). *The Strategy and Tactics of Pricing,* 2nd edition, Englewood Cliffs, NJ: Prentice Hall;
21. Parker A., (2008). *Upwardly Mobile,* Financial Times;

22. Porter M., (1980). *Competitive Strategy*, New York: Free Press;
23. Porter M., (1985). *Competitive Advantage*, New York: Free Press;
24. Porter M., (1980). *Competitive Strategy: Techniques for analyzing industries and competitors*, New York: Free Press;
25. Porter M., (2008). *The Five Competitive Forces That Shape Strategy*, Harvard Business Review;
26. Raynauld J., Stringer Y., Townley P., (1994). *Market and Prices*, Ontario: Prentice Hall;
27. Rust R., Zahorik A., Keiningham T., (1996). *Service Marketing*, New York: Harper Collins;
28. Tompson A., Strickland A., III, Gamble J., (2007). *Crafting and Executing strategy: the quest for competitive advantage*, 15th edition, McGraw Hill;
29. Trout J., (1969). *Positioning "is a game people play" in today's me – too market place*, *Industrial Marketing*, Vol. 54, No. 6;
30. Veseli N., (2009). *Principles of Marketing*, 2nd edition, Skopje: Alma;
31. Veseli N., Veseli T., (2009). *Marketing Management*, Skopje: Alma;
32. Vohra R., Krishnnamurthi L., (2012). *Principles of Pricing*, Northwestern University, Illinois;
33. Zeithaml V., (2000). *Service Quality*, Profitability and the Economics Worth of Customers: What We Know and What We Need to Learn, Journalist of the Academy of Marketing Science;
34. http://crm.com.mk/
35. http://www.aek.mk/
36. http://www.stat.gov.mk/
37. http://www.t-mobile.mk/
38. http://www.one.mk/
39. http://www.vip.mk/

THE ROLE OF BANKS IN SUPPORTING SME INVESTMENTS IN THE REPUBLIC OF MACEDONIA: THE CASE OF THE POLOG REGION

Ass.Prof.Dr.Jeton Mazllami[91]

Abstract

The economy of the Republic of Macedonia has gone through a difficult and prolonged process of transition. The period of transition has been characterized with negative effects on the national economy, which unfortunately continue to remain present even nowadays: an unsecure and unfavourable business environment, a low level of investments, a banking system "organised" around the bigger banks, fluctuating trends of economical growth, a tendency of a slowing economic development, not to mention the high degree of unemployment and poverty. During this period several important reforms in the real and financial sector have been implemented, but unfortunately without major effects on economic development. The real sector (SMEs) is considered as a generator of new jobs, a generator of development as well as the main contributor to decreasing the degree of poverty. On the other side, the banking sector is considered to be a suitable source of finance for business activities and investment projects undertaken by the SMEs.
The objective of this paper is to measure the role and importance of the banking sector in providing microfinance for the SMEs with special emphasizes to the Tetovo region. In order to determine the correlation I have realized a survey in SME's in Polog region as well as the analysis of the data found in the annual reports of the economic entities. The methodology used is cross tabulation two-way tables with measures of association basing to the data analyses from both surveys and processed by STATA/SE 12.0 software.

Key words: *Investments, loans, economic growth, etc.*

[91] *Faculty of Business and Economics at South East European University; Tetovo, Republic of Macedonia,* j.mazllami@seeu.edu.mk

Introduction

Small and medium-sized enterprises (SMEs) play a pivotal role for employment, job creation, investment, innovation and economic growth and thus are crucial for the recovery of each economy (EU Monitor, 2014).

The local and central government as well as the banking sector have supported the growth and development of SME's, although with several country differences. Facing immense financial difficulties, in many cases SME's have managed to solve their internal issues, even though in a prolonged manner. SME's in continuity have done their best to maintain good relations with supporting institutions, especially with the banking sector. Access to finance is of immense importance for the growth and development of business's, especially in overcoming liquidity constraints and in capitalizing on investment opportunities. Banks play a major role in providing support in solving companies long and short term money shortages.

The financial crisis of 2007/08 has imposed additional constrains on SME's: *a drastic drop in the demand for the goods and services they provide* accompanied by a *credit crunch.* This business cycle has had a negative repercussion on cash flows and liquidity followed by drastic drop of investments, increasing the level of unemployment and low outcomes.

According to OECD Report on SMEs and the credit crunch (2014), the crisis has had a negative effect on bank lending and when bank lending is reduced, SMEs tend to be more vulnerable and affected than larger corporations. Governments launched specific measures to address this problem, in some cases targeted to the banking sector.

The financial system may help SMEs to solve the problems impacted by financial crisis. The financial system performs the function of efficiently channeling funds to individuals or corporations with worthy investment opportunities. If shocks interfere with the information flows that are necessary for a smooth functioning of the financial system, the system can be disrupted and financial instability can arise. By disrupting the flow of credit, financial instability, in turn, becomes a threat to economic performance (Mishkin, 1999).

The Macedonian economy has undergone the same path as other countries from the region during the post crisis period. The objective of the paper is to detect and measure the role of banks in supporting SME, increasing the investments and improving their business activities.

Literature review

There is a substantial literature from relevant international institutions published in the field, some of which will be mentioned in the following text.

One of the many conclusions of the Report for G20 Leaders (OECD, 2013) should be mentioned: it will be very important to analyses how to develop policies with respect to suitable bank business models in order to foster an environment more conducive to infrastructure and SME lending, and to foster a more stable environment that will lower the cost of capital, which is so critical in longer term investment funding and decision-making. It is not helpful to foster an environment that once more favors debt over equity.

In 2012 the OECD launched the first edition of "Financing SMEs and Entrepreneurship: An OECD Scoreboard" with the aim of establishing a comprehensive international framework for monitoring SMEs' and entrepreneurs' access to finance over time.

The United Nations Secretary-General's Special Advocate for Inclusive Finance for Development (UNSGSA), is working with stakeholders to share knowledge, inspire deeper commitments, and take action that results in meaningful impact for poor people and smaller enterprises.

The International Finance Cooperation (IFC) works to increase access of SMEs to financial services in developing countries by providing funding for equity, loans, and mezzanine finance to financial intermediaries focusing on SMEs, by building their capacity and raising awareness on best practices

The Francoise Company Vigeo (2014) have had a research how banks support SMEs and their research shows that supporting access to credit for SMEs appears as a common practice among the different geographical regions that were analyzed with 68% of banks in Europe, 79% in North America, 66% in Asia Pacific and 68% from Emerging Markets reporting their support to SMEs. This report, the provision of micro-finance as well as cooperation with stakeholders appears to be more widespread in Europe and North America. The more important finding of Viego report research are as follows:

1. *Banks supporting access to credit for SME's, the provision of micro-finance as well as cooperation with stakeholders appears to be more widespread. This appears as a good common practice.*
2. *Only 28%, or 56 out of 200 banks, disclose indicators allowing measuring the effectiveness of their efforts.*

In a research paper by Lawless, McCann and O'Toole (2013) it was analyzed the importance of banks in SME financing in Ireland pre and after financial crises. The survey pre-crisis was undertaken in thirteen European countries: the Czech Republic, Estonia, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Slovakia, Slovenia and Spain with a total sample of 6.354, of which 501 are Irish while the post-crisis survey consists by 7,510 firms, of which 500 are based in Ireland. The findings of this research are as follows:

1. *The both pre- and post-crisis, Irish SMEs are among the most reliant on banks in Europe, across a number of different measures.*
2. *If a diversification away from reliance on bank funding is desirable, it is important that policy makers mitigate the risk that firms are merely turning to other under-developed and costly forms of financing due to an inability to access bank credit. Policy must aim simultaneously to stimulate the flow of bank credit and to create well-developed markets for a range of alternative financing sources to complement the role of banks in financing the SME segment in Ireland.*

According to the research "SME financing in the EU area-New solution to an old problem" by Deutsche Bank research (EU Monitor, 2014) it can be concluded that SME's play a central role in terms of economic activity and employment in Europe. The supporting and SME's financing process in different countries in EU realized combined by banks and public institutions (local and central level). In some of countries there is a large spectrum of public institutions which aim to support SME's access to finance which need to be combined with the adequate type of bank. Also it was underlined that there are currently some signs of more aggressive competition for banks from shadow lenders. This may imply that some SME loans are now being funded by lightly regulated or unregulated shadow banks which may not be a desired outcome for regulators.

Overview of business and banks entities: Polog region in the Republic of Macedonia context

According to the Law on territorial reorganization the Republic of Macedonia is comprised of 85 municipalities. According to the reshuffling of regional municipalities in R. Macedonia and according to statistical classification nomenclature-territorial units NUTS3 has 8 regions as follows: Pelagonija, Vardar, North eastern Region, Southwest, Southeast, Pollog and Skopje.

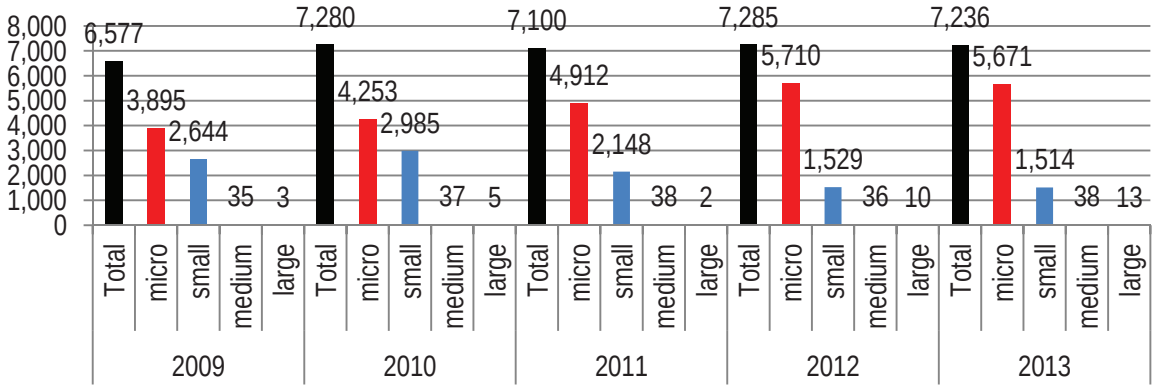
The Pollog region includes two major cities as are the cities of Tetovo and Gostivar. This region is known as a region of private initiatives and a region of many successful businesses.

If the trend of SMEs (micro, small, medium and large) in the Pollog Region during last 5-years (2009-2013), is analysed it can be concluded that:

- The total numbers of SME's are increased for 659 entities (from 6.577 till 7236),
- The number of micro business entity is significantly increased for 1776 entity (from 3.896 till 5671),
- The number of small business entity is significantly decreased for 1130 entity (from 2644 to 1514)

The number of medium and large company category has shown slower growth compared with other categories (Chart 1).

Chart 1 The number of SME's in Pollog Region (2009-2013)

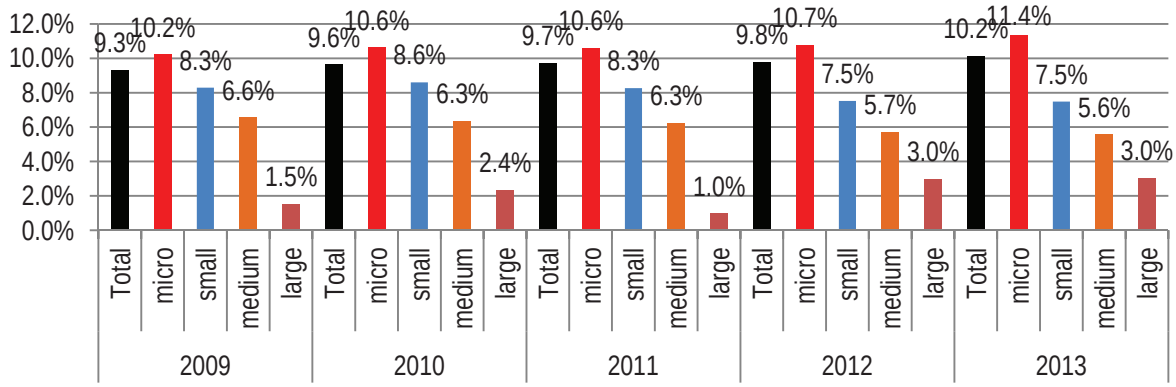


Source: *Authors own calculation based on official data from the State Statistical Office of RM*

The analysis of participation of the SME's of Pollog Region as a part of the Macedonian economy during 2009-2013 is as follows *(Chart 2)*:

- The percentage of total SMS has moved from 9.3% to 10,2%,
- The higher percentage from SMS's have micro business entity

Chart 2 The number of SME's of Pollog Region as a part of RM (%), (2009-2013)



Source: Author's own calculation based on official data from the State Statistical Office of RM

The banking system of the RM is consisting of Banks and Savings houses. The total numbers of banks and savings house comparison between years have changed (Table 1). In the end of 2013, the banking system in the Republic of Macedonia consisted of sixteen banks and four savings houses. The total number of banks in 2013 remains unchanged compared to the 2012 year, while the number of savings houses declined by three (from 7 to 4) (NBRM, 2014).

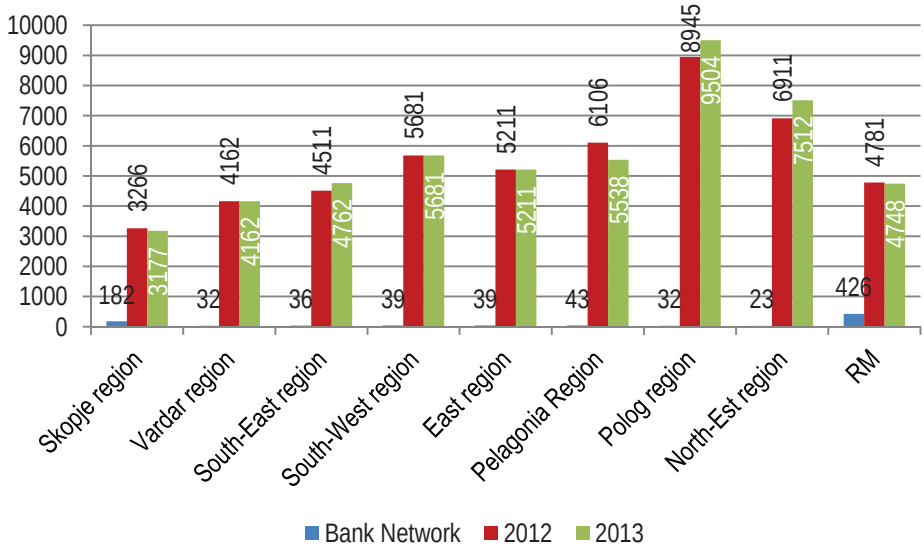
Table 1 Banking system in Republic of Macedonia, (2009-2013)

Categories	*2009*	*2010*	*2011*	*2012*	*2013*
Banks	18	18	17	16	*16*
Savings Houses	10	8	8	7	*4*
Total	*28*	*26*	*25*	*23*	*20*

Source: Author's own calculation based on official data from the State Statistical Office of RM

The banking network is comprised of 426 business units spread across almost all cities in all regions of the Republic of Macedonia. The analysis shows that most bank units are concentrated in the Skopje region. Compared with other areas, Skopje area still offers the best access to banking services, as measured by the number of inhabitants per business unit (3.266 inhabitants/business unit for 2012 and 3.177 for 2013). The question arises, where is the region of Polog in this context? Unfortunately in the last position! The banking network in Polog region is present with 32 business units like a Vardar region but the number of inhabitants per business unit it is more different in favor of the Vardar region. In 2012, the Polog region had 8.945 inhabitants per business unit but in the Vardar region it was 4.162 while in 2013, in Polog region it was 9.504 inhabitants per business unit but in Vardar it was 4.162. This means that the Polog region in this regard has less efficiency compare with Vardar region and with all other regions (Chart 3).

Chart 3 Bank network and number of inhabitants per business unit by region in the Republic of Macedonia (2012-2013)



Source: NBRM, State Statistical Office of RM, author's own calculation

The bank network in the banking system in Macedonia is underdeveloped compared to the majority of EU countries having in mind the number of residents per credit institution and per bank unit (Table 2).

Table 2 Comparative indicators on number of inhabitants per bank and business unit of banks

No	Country	Number of inhabitants by bank	No	Country	Number of inhabitants per business unit by banks
1	Luxembourg	3,714	1	Cyprus	1,258
2	Austria	12,032	2	Spain	1,380
3	Cyprus	15,053	3	France	1,739
4	Malta	15,755	4	Portugal	1,742
5	Lithuania	33,073	5	Italy	1,914
6	Latvia	33,923	6	Bulgaria	1,922
7	Estonia	35,563	7	Austria	1,955
8	Germany	44,672	8	Germany	2,234
9	Denmark	47,288	9	Poland	2,456
10	Hungary	52,261	10	Luxembourg	2,581
…	…	…	…	…	…
20	**Macedonia**	**137,718**	20	Denmark	4,480
21	Croatia	141,560	21	Lithuania	4,487
22	Albania	180,997	22	**Macedonia**	**4,748**
23	Czech Republic	187,722	23	Sweden	4,886
24	Slovakia	193,427	24	Czech Republic	4,924
25	Spain	205,806	25	Albania	5,474

Source: NBRM, EU report, WB, national banks of mentioned countries, author's design

The number of inhabitants served by a bank places the Republic of Macedonia in the second half of the above table. In this case it should be underlined that this indicator is better if compared to some of the countries in the Western Balkan region.

Research methodology

The methodology used is cross tabulation two-way tables with measures of association of the survey realized in SMEs of the Polog region. The objective of the research is to measure and to test the level of relationship between the banks and business category by the Software STATA 12.0. It should be underlined that this study investigates direct linkage between banks entities and business categories and attempts to shed some light on the discussion about the banks contribution in order to increase the private investments. In this case the following hypotheses will be tested:

The null hypothesis (Ho): *No relationship between variables*
The alternative hypothesis (Ha): *Existing relationship between variables*

The estimation and testing of hypotheses will be realized as follows:

- *Cross tabulation two-way tables with measures of association.*
- *Statistic Testing: X2 (chi-square) tests, Cramer's V test, Gamma, Kandall's taub test and Fisher's exact test*

The objective is to estimate the real perceptions of entrepreneurs of Polog region regarding the Banks (based on the questionnaire sample).

Empirical data analysis

The economy of the region represents a complex collection of all economic activities, local and national policies, including a number of factors determining it. The national economy represents quite complex symbiosis of all local or regional economies of the country. Constant functioning of branches of economic activities in general represents a necessary condition to sustainable development of a regional or national economy (Mazllami at all, 2011).

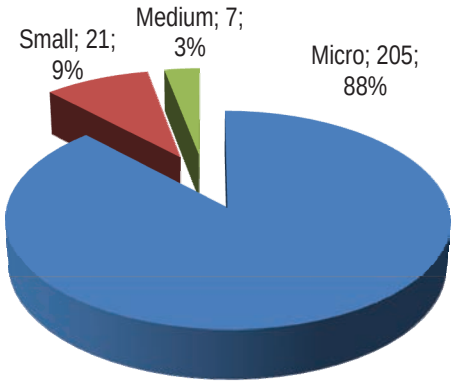
The survey sample includes 233 SMEs from the Pollog region. As can be notices from the activity can be concluded as follows:

- Trade 46,78% (109 subjects);
- Production 28,32% (66 subjects)
- Construction 10,73% (25 subjects);
- Providing services 7,72% (18 subjects)
- Transportation 3,0% (7 subjects)
- Hotels and restaurant 3.45% (8 subjects)

Of all the subjects interviewed it based on their size the companies can be classified as follows (Chart 4):

- Micro company – 205 (88,0%)
- Small company – 21 (9,0%)
- Medium company – 7 (3,0%)

Chart 4 Structure of questioner based on the Company's size



Another issue that should be paid attention to are investments. What resources would SME's preferred to finance their investment projects? Analyzed as a whole the answers by SMEs of survey of Polog region about these issues are as follows (Table 3):

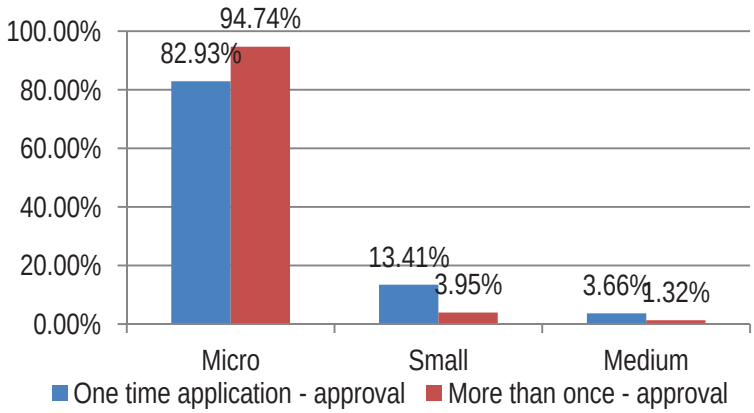
- 57.94% of SME's stated that investments projects are financed by firm's own capital (of these 88.15% are micro, 9.63% small and 2.22% are medium company),
- 31.33% of SMEs stated that investments projects are financed by banks loans (of these 84.93% are Micro, 10.96% small and 4.11% are medium company),
- 6.87% of SMEs stated that investments projects are financed by join venture capital (of these 93.75% are micro and 6.25% are medium company),
- 3.86% of SMEs stated the other.

Table 3 Financing forms of investments projects of SMEs

Forms of financing	Micro		Small		Medium		Total	
Firm's own capital	119	88.15%	13	9.63%	3	2.22%	135	57.94%
Bank loans	62	84.93%	8	10.96%	3	4.11%	73	31.33%
Joint venture capital	15	93.75%	0	0.00%	1	6.25%	16	6.87%
Other	9	100.00 %	0	0.00%	0	0.00%	9	3.86%
Total	205	87.98%	21	9.01%	7	3.00%	233	100%

Analyzing the answers of SMEs related how many times they have applied for a bank loans, the following can be noticed (Chart 5 and table 4):

Chart 5 Number of applications of SMEs for loans and their approval



From the entire surveyed SMEs 67.81% (158 companies) stated that have applied for loans and it is approved. Of these can emphasise as follows (Table 4):

- 35.19% or 82 companies have declared that once have applied for banks loans (82.93% micro, 13.41% small and 3.66% medium).
- 32.62% or 76 companies have declared that more than once have applied for banks loans (94.74% micro,

Table 4 Number of applications of SMEs for bank loans

Number of application/App/NonApp	Micro		Small		Medium		Total	
One time application - approval	68	82.93%	11	13.41%	3	3.66%	82	35.19%
More than once – approval	72	94.74%	3	3.95%	1	1.32%	76	32.62%
One time application - non approval	50	89.29%	4	7.14%	2	3.57%	56	24.03%
More than once - non approval	14	77.78%	3	16.67%	1	5.56%	18	7.73%
We do not have seek never	1	100.00 %	0	0.00%	0	0.00%	1	0.43%
Total	205	87.98%	21	9.01%	7	3.00%	233	100%

In this case it should be underlined that 32.19% (75 companies) of surveyed SMEs stated that they had never an opportunity to take a loan.

The most important issues for SMEs of Pollog region is the level of interest rates of bank loans accorded by commercial banks. Ever time according to the survey sample the collected answer as follows:

Table 5 The perceptions of SMEs for the level of interest rate

Level of interest rate	Micro		Small		Medium		Total	
Very low	9	90.00%	0	0.00%	1	10.00%	10	4.29%
Lower	15	83.33%	3	16.67%	0	0.00%	18	7.73%
Acceptable	65	85.53%	9	11.84%	2	2.63%	76	32.62%
Higher	79	87.78%	7	7.78%	4	4.44%	90	38.63%
Very high	37	94.87%	2	5.13%	0	0.00%	39	16.74%
Total	205	87.98%	21	9.01%	7	3.00%	233	100%

According by table 5 it can be concluded as follows:

- 12.02% or 28 companies have declared that the interest rates are very low and lower (4.29% and 7.73% respectively).
- 32.62% ore 76 companies have declared that the interest rates are acceptable.
- 55.37% ore 129 companies have declared that the interest rates are higher and very high (38.63% and 16.74% respectively)

Some entrepreneurs have the opinion that the bank's procedures are too bureaucratic. In order to clarify this dilemma the issue was included in the questionnaire and the following opinions emerged (Table 6):

- 3.43% of companies especially micro have stated that the bank's procedures are very simple.
- 7.73% of companies have stated that the procedures are simple.
- 37.34% or 76 of SMEs have stated that the bank's procedures are acceptable (of these 87.36% are micro, 10.34% are small and 2.30% are medium)
- 35.19% or 82 of SMEs have stated that the bank's procedures are difficult (of these 90.24% are micro, 7.32% are small and 2.44% are medium)
- 16.31% or 38 of SMEs have stated that the bank's procedures are very difficult (of these 84.21% are micro, 7.89% are small and 7.89% are medium)

Table 6 The perceptions of SMEs for the level of bank's procedures

Level of bank's procedures	Micro		Small		Medium		Total	
Very simple	8	100.00%	0	0.00%	0	0.00%	8	3.43%
Simple	15	83.33%	3	16.67%	0	0.00%	18	7.73%
Acceptable	76	87.36%	9	10.34%	2	2.30%	87	37.34%
Difficult	74	90.24%	6	7.32%	2	2.44%	82	35.19%
Very difficult	32	84.21%	3	7.89%	3	7.89%	38	16.31%
Total	205	87.98%	21	9.01%	7	3.00%	233	100%

Testing of hypothesis and discussion

The following hypotheses have been tested:

Hypotheses 1: There is no relationship between the SMEs which preferred bank loans and level of investments

According to the cross tabulation of SMEs (micro, small and medium) which preferred bank loans and their level of investments the following results have been obtained:

- 73 SMS from survey questioner have declared that they use bank loans for financing their project investments
- 19.18% (14 from 73) are declared that their investments have been decreasing (from these 85.71% micro and 14.29% small companies).
- 32.88% (24 from 73) are declared that their investments have been the same (from these 87.5% micro, 4.17% small and 8.33% medium companies).
- 41.1% (30 from 73) are declared that their investments are increasing (from these 86.67% micro, 10.00% small and 3.33% medium companies).

- 6.85% (5 from 73) are declared that their investments have significant increasing (from these 60.00% micro and 40.00% small companies).

In general 35 or 47.95% of SMEs which use bank loans believe and have declared that their business activities will be expanded but 52.05% of SMEs think the opposite.

Table 7 SMEs which preferred bank loans and level of investments

SMEs	Decreasing		Same		Increasing		Sig.increasing		Total	
Category	No	C_o %	No	C_o %	No	C_o %	No	C_o %	No	C_o %
Micro	12	85.71	21	87.5	26	86.67	3	60.00	62	84.93
Small	2	14.29	1	4.17	3	10.0	2	40.00	8	10.96
Medium	0	0	2	8.33	1	3.33	0	0	3	4.11
Total & Ro%	14	19.18	24	32.88	30	41.1	5	6.85	73	100

If I test this correlation I will obtain these results as follows:

TESTING:	RESULTS :
Pearson chi2 (6) = 7.2877 **Pr = 0.295**	**Because Pr>0.05 (at 95% confidence) than we accept H(0)**
Crammer's V= 0.2234	**V: ∈+ or -0.20 to 0.29 then the association is moderate**
Gamma= 0.1627	
Fisher's exact = 0.301	

Comments: The H (0) hypothesis stating that there is no relationship between the SMEs which preferred bank loans and level of investments and this relationship isn't significant, is accepted.

Hypothesis 2: There is no correlation between variables using bank loans and the level of interest rates.

According to the cross tabulation of the mentioned variables the following results has been obtained:

- From the SMEs which have used a bank loan 42.40% (or 67 companies) has declared that the interest rates are higher and 23.42% (or 37) have declared that the interest rates are very high.
- In general 69.96% or 163 SMEs have declared that the interest rates are higher and very high.

Table 8 SMEs which use bank loans and level of interest rates

Bank loans	Very low		Lower		Acceptable		Higher		Very high		Total/ C_o %	
Using	No	R_o %	No	R_o %	No	R_o %	No	R_o %	No	R_o %	No	C_o %
Yes	5	3.16	10	15.8	39	24.68	67	42.4	37	23.42	158	67.81
Non	0	0.00	6	8.00	10	7.50	32	42.66	27	36.00	75	32.19
Total	5	2.15	16	6.87	49	21.03	99	42.49	64	27.47	233	100.00

The testing of correlation shows the following:

TESTING:	RESULTS :
Pearson chi2 (4) = 8.6278	
Pr = 0.071	**Because Pr=0.071<0.10 (at 90% confidence) we reject the H(0) and accept the H(a)**
likelihood-ratio chi2 (4) = 14.6491	
Pr= 0.036	
Crammer's V= 0.1924	**V=0.1924 ∈ (+ or -) 0.10 to 020, this association is weak**
Gamma= 0.2535	**G=0.2535<1.0000 then there are a positive moderate relationship**
Fisher's exact = 0.071	**Here we reject the (H_0) and conclude that are a relationship between variables**

Comments: There is a correlation between the SMEs and level of interest rates. The declaration of the 69.96% of SMEs that the interest rates are higher and very high is accepted (within a 90% confidence interval).

Hypothesis 3: There is no correlation between variables using a bank loans and level of bank's procedures

According to the cross tabulation of the mentioned variables the following results has been obtained:

- From the SMEs which have used a bank loans 42.41.68% (or 67 companies) have declared that the bank's procedures are difficult and 13.92% (or 22) have declared that the bank's procedures are very difficult
- In general 55.36% or 129 SMEs have declared that the bank's procedures are difficult and very difficult

Table 9 SMEs which use bank loans and level of bank's procedures

Bank loans	Very simple		Simple		Acceptable		Difficult		Very difficult		Total	
Using	No	C_o%	No	C_o%	No	C_o%	No	C_o%	No	C_o%	No	C_o%
Yes	4	2.53	9	5.70	56	35.44	67	42.41	22	13.92	158	67.81
Non	6	8.00	9	12.00	20	26.67	23	30.67	17	22.67	75	32.19
Total&Ro%	10	4.29	18	7.73	76	32.62	90	38.63	39	16.74	233	100.00

The testing of correlation shows the following:

TESTING:	RESULTS :
Pearson chi2 (4) = 11.4972	
Pr = 0.022	**Because Pr=0.022<0.05 (at 95% confidence) we reject the H(0) and accept the H(a)**
likelihood-ratio chi2 (4) 11.0375	
= 0.026	
Pr=	
Crammer's V= 0.2221	**V=0.1924 ∈ (+ or -) 0.20 to 029, this association is moderate**
Gamma= -0.036	**G=-0.036<1.0000 then there are a positive strong relationship**
Fisher's exact = 0.021	**Here we reject the (H_0) and conclude that are a relationship between variables**

Comments: There is a correlation between the SMEs and level of bank procedure complexity. The declaration of the 53.36% of SMEs that the bank's procedures are difficult and very difficult is accepted (within a 95% confidence interval).

Conclusion

The research leads to the following conclusions:

- The Bank system in the Republic of Macedonia has not played an adequate role to help and support the SMEs. According to the sample it can be conclude that there is no relationship between the SMEs which preferred bank loans and level of investments
- The level of interest rates offered by the Bank System in Republic of Macedonia is not adequate to support the new investments of SMEs. According to the sample 69.96% of SMEs are opinion that the interest rates are higher and very high. This opinion is accepted within a 90% confidence interval.
- The bank's procedures in Bank system in Republic of Macedonia are complex. According to the sample 53.36% of SMEs have declared that the bank's procedures are difficult and very difficult. This opinion is accepted within a 95% confidence interval.

Reference list

1. Daverio, C at all.(2014). The role of banks in supporting the real economy, Sustainability focus, Vigeo rating
2. EU Monitor (2014). SME Financing in the euro area: new solution to an old problem
3. Haldane, A. (2004). 'Defining Monetary and financial Stability', mimeo, Bank of England.
4. Lawless, M. at all (2013). Yhe importance of banks in SME financing: Ireland in a European context, Central Bank of Ireland.
5. Mariotti, S.; Glackin, C. (2015). Entrepreneurship: Starting and Operating A Small Business (4th Edition), Prentice Hall.
6. Mazllami, J. (2007). Economic efficiency of investment in the transition period in Macedonia with special emphasis on Pollog region, Unpublished Master Dissertation, Skopje.
7. Mazllami, J. (2011). Investments and Local Economic Development in the Tetovo region, Unpublished PhD Dissertation.
8. Mazllami, J. at all. (2011). The impact of global financial crisis on the Macedonian Economy. 1ed. Germany, UK: Lambert Academy Publishing.

9. Michael E. Porter (2000). Location, Competition, and Economic Development: Local Clusters in a Global Economy, Economic Development Quarterly 2000.
10. Mishkin, F.S. (1999), 'Global Financial Instability: Framework, Events, Issues', Journal of Economic Perspectives, Vol. 13, No. 4.
11. Naude, W. (2013). Entrepreneurship and Economic Development: Theory, Evidence and policy, IZA DP No.7507.
12. NBRM (2012). Report on the risks in the banking system of the Republic of Macedonia, Skopje
13. NBRM (2013). Report on the risks in the banking system of the Republic of Macedonia, Skopje
14. NBRM (2014). Report on the risks in the banking system of the Republic of Macedonia, Skopje
15. OECD (2013). The rol of banks, equity markets and institutional investors in long term financing for growth and development, Report for G20 Leaders
16. Öksüzoğlu-Güven, G. (2015). Decision Making in SMEs: Insights from Business Ethics and Entrepreneurship. In *Human Rights and Ethics: Concepts, Methodologies, Tools, and Applications*, IRMA.
17. Oscar Torres-Reyna (2014). Getting Started in Frequencies, Crosstab, Factor and Regression Analysis
18. Robert E. B.(2009): Significance and Measures of Association, Chapter 12, Copyright.
19. Smallbone, D., Kitching, J., Blackburn, R., (2015). Anchor institutions and small firms in the UK: A review of the literature on anchor institutions and their role in developing management and leadership skills in small firms
20. Wolfe, R. (1999): Partitions of Pearson's 2 for analyzing two-way tables that have ordered columns. Stata Technical Bulletin 51: 37–40. Reprinted in Stata Technical Bulletin Reprints, vol. 9, pp. 203–207. College Station, TX: Stata Press

BEYOND AND BEHIND A SIMPLE COMPANY REGISTRATION PROCEDURE: CROATIAN CASE

Ružica Šimić Banović, PhD[92]

Abstract

Regulations affecting the entry of new firms are among the most frequently used indicators for the assessment of business friendliness. Registering an enterprise was one of the key services of Hitro.hr one-stop shop provided within Croatian Government Financial Agency. The e-Company service was promised to encompass all the necessary steps to complete the registration of the company within 24 hours. Despite the impression of a well-functioning project supporting favourable business climate, various regulatory changes appeared to show thoughtless and unsystematic approach to reforms. In order to check the media news reporting that e-Company service became another (epic) fail, the story of an entrepreneur is closely followed from the first step and reported in detail in a case study. Additional clarifications of the entire process were gathered from the relevant authorities and people involved.
This article explores the top down change in the regulatory infrastructure in order to explain the reasons of the fail of a simple and fast, utterly important and unavoidable, procedure. This analysis contributes to the debate on the business environment reform in transitional societies, former Yugoslav republics in particular as they are affected by mutual (regulatory) legacy.

Key words: *entry regulation, reform, Eastern Europe, entrepreneurship, business environment*

[92] Assistant Professor, Department of Economics, Faculty of Law, University of Zagreb ruzica.simic@pravo.hr

1. Introduction and methodology

The number of the days needed to register a company and the costs of the whole process are among the most frequently used indicators for the assessment of business friendliness of a certain country. Registering a company (named e-Company service) was one of the key services of Hitro.hr one-stop shop provided within FINA – Government Financial Agency. The e-Company service was promised to encompass all the necessary steps to complete the registration of the company within 24 hours[93]. It was also one of the positive "leftovers" of Hitro.hr and Hitrorez reforms. Several international awards such as European eGoverment Award "Good practice label" that Hitro.hr received in 2009 are likely to be seen as an objective proof of its excellence. Despite the impression of a well-functioning project supporting favourable business climate, the changes in the beginning of 2011 again appeared to show thoughtless and unsystematical approach to reforms. In order to check the media news (Večernji list, 2011) reporting that e-Company service became another fail, the story of an entrepreneur DB is closely followed from the first step. In the beginning of February 2011 while being unemployed and trying to find the ways to earn money, this entrepreneur decided to register a limited liability company in Zagreb, business consulting being the company's core business. Additional clarifications of the entire process were gathered from the relevant authorities and people involved. They were selected as key informants in the process. Due to the sensitivity of data disclosed, several interviewees requested to stay anonymous.

The case of the entrepreneur DB does not pretend to be used for generalisation of all the small companies being registered in Zagreb in 2011. Still, there are several reasons proving the usefulness and representativeness of this case. Almost 99% of all enterprises in Croatia are the small ones (CEPOR, 2011, p. 13) and approximately a third of all Croatian enterprises are registered in Zagreb. According to the Total Entrepreneurial Activity Index[94] (CEPOR, 2011, p. 17) this trend of Zagreb dominance will continue. Furthermore, Croatian early-stage entrepreneurs are still more often necessity-driven than opportunity-driven (Kelly, Singer and Herrington, 2012, p. 10) same as the entrepreneur whose case is being observed. Moreover, despite the case being explored almost four years ago it is still relevant as e-Company as a proper one stop shop is still not operational, while other e-Government services have improved. This article seeks to reveal real, apparently more resistant, barriers for starting a business in Croatia.

2. Literature Review on Entry Barriers and the Case Study Context: Croatian business environment

More business-friendly environment can also be described as less burdensome (Djankov et al, 2006). Large entry barriers are shown to be linked with country's poverty (de Soto, 1989) and it is common that developed, less corrupt countries with better public administration have less barriers to starting a business (Djankov et al, 2012). Moreover, lower entry barriers are correlated with international openness (Norbaeck et al, 2014) and higher productivity per worker (Barseghyan, 2008). Overall, the studies confirm that more entry regulation results in less enterprises being registered (Ciccone & Papaioannou, 2007; Desai et al, 2003; Klapper et al, 2004). Administrative obstacles, i. e. long and expensive procedures for registering and terminating an enterprise, have been over decades recognised among key barriers for the

[93] The e-Company process included all the milestones except the registration with the Tax Authority: checking the availability of the company name, verification of the documents provided, opening the transfer bank account for the payment of the initial capital, collecting the Notification of Classification form confirming the business activities of an enterprise at the State Bureau for Statistics, and, if necessary, registration with Croatian Pension and Croatian Health Insurance Institutes. More detailed information are to be found at www.hitro.hr

[94] This Index shows a number of surveyed people in certain city/region planning to start a company in the next three years and/or recognizing the business opportunity in the next six months.

development of the small and medium enterprises in Croatia (CEPOR, 2015). Despite all the reforms undertaken by several governments, according to the most recognized international benchmarks (Figure 1, Figure 2) a significant decrease in the quality of the Croatian business environment is to be seen. Overall, the rankings show two important findings: first, Croatia is lagging behind the post-communist transition countries and second, Croatia's position shows a negative trend.

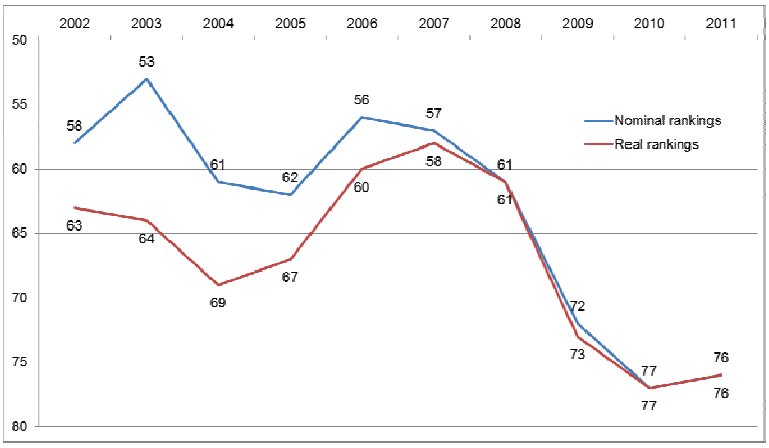


Figure 1. Croatian competitiveness 2002-2011 according to WEF World Competitiveness Report

Source: Croatian National Competitiveness Council based on *Global Competitiveness Reports 2002-2011* (World Economic Forum)

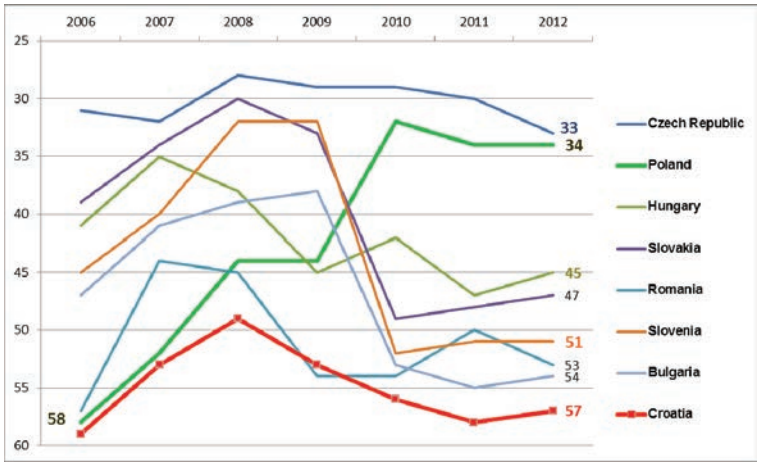


Figure 2. Croatian competitiveness 2006-2012 according to IMD World Competitiveness Yearbook

Source: Croatian National Competitiveness Council database based on *IMD World Competitiveness Yearbook 2006-2012*

The list of the biggest obstacles for doing business in Croatia suggests that over many years the inefficient government bureaucracy is at the top followed by access to financing, corruption, tax rates, tax and labour regulations (Figure 3). Based on the comparisons presented, it seems that Croatia is left out of the "transition tournament". The reasons are most likely to be twofold: first is that other countries encompassed in the measurements have in total improved much faster and better, and the other reason lies in more durable and deeper issues that are less likely to be changed over a decade or two: "soft infrastructure" (modes of behaviour, traditions, culture, etc).

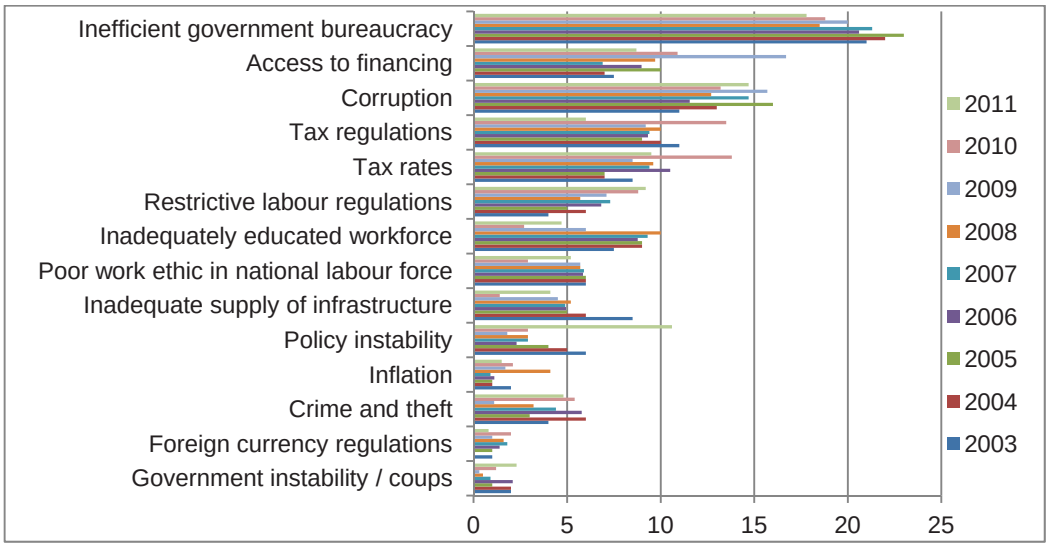


Figure 3. The most problematic factors for doing business

Note: From a list of 15 factors, respondents were asked to select the top five problems for doing business in their country and to rank them between 1 (the most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.
Only the public health factor is excluded from the table because it was less than 1% throughout the years listed.

Source: *Global Competitiveness Reports 2003-2011*, World Economic Forum

Regarding the "hardware" of the business environment, the Doing Business results (WB, 2012) based on the data from 2002 to 2012/13 show that in the majority of areas essential for a well-functioning business environment, Croatia improved its results, i. e. decreased the number of procedures or days needed or lowered required financial resources to pursue certain activity. The rest of the indicators show the stagnant results in the last decade. And a worsening is evident in only 4 out of 33 indicators. These results reflect the partial or wholesale reforms undertaken in order to improve the legal framework and financial services necessary for the business sector development, and support of international trade. They also reflect the pressure of the EU accession process. Yet, the most recent results (WB, 2015) indicate deterioration in starting business indicators despite the changes implemented and the novelty called "simple limited liability company". These can again be related to the grassroots problems of the institutional infrastructure depicted by this case study.

3. Hitro.hr: The flow of a (once simple) regulatory procedure

A very first step is a company name check. As of January 2011, it was impossible to check the availability of the proposed names with Hitro.hr service. As an effect of the changes of the Law on Court areas and headquarters (Official Gazette 144/10) and Decision on establishing the permanent services (Official Gazette 03/11), that needed to be done at the Trade Court in Zagreb. The phone calls at the Trade Court were accepted only an hour a day, and because of the queue it took in average twenty minutes to reach an officer. The officers could only give general advice that can be found on the website as well. They were not allowed to provide any specific information nor could they give the assurance that the name suggested would most probably pass the Court procedure. The entrepreneur asked for advice and help from a public notary, but she could not do much because her contact persons including the judge and court advisers at the Trade Court were away for several days. While searching through web forums the entrepreneur DB

found out that it might be possible to talk directly to the Head of the Court register who is in charge of approving the names. The office hours of the Head of the Register are actually designated for the public notaries registering companies on behalf of their clients[95]. But if the entrepreneur proposed the name within the procedure led by the public notary and the name was rejected, he would need to pay the fee of 400 HRK (approx. 55 EUR) again (also confirmed by the case of an entrepreneur portrayed in Večernji, 2011). And the payment of that fee is requested every time a new name is in a Court procedure. Visiting a judge accelerated the process because she instantly checked the names proposed and suggested one that would most likely be approved. Finding an appropriate name for a company in Zagreb is quite complicated due to several reasons. First, because of the often-changing rules[96] that are being strictly followed and those rules limit the choice of the name to a significant extent. Second, the Register at the Trade Court in Zagreb compared to other trade courts in Croatia includes the biggest number of the companies registered and that makes it even more difficult to find the name that is not already in use. Alternatively, some entrepreneurs from Zagreb register their company at some other trade court in Croatia if they insist on a particular name (that is not available in Zagreb any more) or are not able to find an appropriate name because of the Zagreb register being overloaded. Third, inactive companies (accounting for more than a third of all listed) are not deleted from the Court register despite repeated complaints on the impossibility of finding appropriate names. Fourth, at any of the milestones at the beginning of the registration process there was no guidance offered nor user-friendly information provided, let alone the information covering the recent legal changes and its implications for the businesspeople.

The second step was preparation of the company's documents at public notary's office. The lawyer at the office was experienced and efficient, proactively providing valuable advice. She also noted that since the beginning of 2011 the public notaries have increasingly received more work because of Hitro.hr inefficiencies and contradictory information provided on the website and experienced in practice (Vrcić, personal communication, 2011). This step remained the only one executed reliably and fast. It also showed a big contrast in the quality of service compared to public administration. It can be explained not only by the competence of the employees at public notary's office, but also by their need to successfully compete in the market.

The third step included obtaining the Decision on entry in the Court register from the Trade Court in Zagreb and submitting it with other documents at the Central Bureau for Statistics in order to receive Notification of classification of business activities. This step went quite smoothly. This meant that there were only two minor problems (especially if comparing to the first step). Entrepreneur brought the confirmation of the fee payments done via online banking while officers preferred the "old-fashioned" payments at the bank or post office and explained it as more secure. Another issue was, that just because (again) nobody was answering the phone and the information was not available at the Central Bureau for Statistics website, the entrepreneur did not have enough photocopies of all the documents needed. Despite large scale informatization conducted all over public administration, additional copies of the documents already in their system are usually requested. Even though both situations were resolved pretty quickly, they again illustrate the way time is lost due to mismatch of public administration practices with contemporary ways of dealing with payments and documentation flow.

[95] Trade Court in Zagreb is in charge of registering companies from five counties and that makes it additionally overloaded.

[96] The name can only be in Croatian, Latin or Greek (use of English and other foreign languages is not allowed); place and historic names have been prohibited since several years; the name is not allowed to resemble any other name (that is usually interpreted as 3-4 same letters in a row); the most common words have also been prohibited in the meantime (such as plus, commerce, import, export); etc. Furthermore, as an effect of separate laws some professions restricted the usage of certain words for companies dealing with their business activities; for instance, words project and engineering can be solely used by companies dealing with architecture and construction engineering.

The fourth step was the opening of the permanent account at the selected commercial bank (Zagrebačka banka in this case). The alternative to going directly to the bank was doing the same thing at Hitro.hr office. Yet, since in the newly emerged situation Hitro.hr would only be an intermediary slowing the process it was decided to resolve everything directly in the bank. The advantages of this step were double checked; with public notary and by comparing the information gathered via phone from Hitro.hr officers. Opening a bank account was supposed to be a fast routine task. Yet, it took 2.5 hours instead of half an hour because of the problems with FINA (Central Financial Agency). Those problems were not connected with the registration of the company at all. They were actually caused by FINA becoming the only responsible party to enforce the foreclosures in Croatia[97]. It resulted in an overload and inefficiency of the system, particularly in the sectors of commercial banks dealing with SMEs (Šaško, personal communication, 2011). The Government decision on making FINA the central point for executing foreclosures was in line with EU harmonisation. But, the EU requirement behind it seems to be a lucky circumstance from the Government's perspective: it helped justifying the need for FINA's existence and keeping the working places in it. In the previous years, the real workload of FINA had actually diminished due to informatization of their services and modernisation of banking services. Therefore, many workplaces became redundant. Coming back to the initial situation, it meant entrepreneur's additional time lost because of the implementation of legal changes on foreclosures not being connected with his objective of registering the company.

The final step was the registration of the company with the tax authorities. This step was never a part of Hitro.hr service but it is mandatory in the process of establishing a company[98]. This step seemed to be an ambiguous task from the beginning because no information on the documents needed was available on the website and the office of the local tax authority was not easily reachable by phone. When the entrepreneur went there, he "discovered" that besides all the documents confirming the registration of the company, he needs to present the contract on the bookkeeping services and the contract on the rent of the office. No guidelines were given again. The fulfilment of all the requirements seemed to be upon the skills and intuition of the entrepreneur to find the appropriate information bearing in mind that it is a medium-term issue at least. In order to get the additional information on the bookkeeping and office rental contract, the entrepreneur was advised by the local tax authority to contact the Central Tax Office. It seemed again as a mission impossible because it took three days of continuous calling to reach the Contact centre of the Central Tax Authority that is officially available from 8 am to 4 pm[99]. So the entrepreneur visited the Central Tax Office to find out the elements of the office rental contract because he will use part of his apartment as his office and needs to know how to deal with it on paper. Regarding the amount of the rent, Central Tax Office operates based on their own estimates of the market prices in all the areas in Zagreb and that is the basis for the calculation of the tax the owner of the place needs to pay. The officer said to the entrepreneur that the rent for the square meter in his zone is estimated to be 60 HRK[100]. According to the tax adviser (in the later conversation), the officer was not allowed to give that information. It seems to be the secret that makes the tax authorities operate more "efficiently", probably by focusing on penalties. The additional issue emerged when the entrepreneur wanted to find out the share of utilities he is

[97] On 1st of January 2011 the changes of Laws on foreclosures and payment system happened within EU harmonisation. This resulted in 600,000 foreclosures of all sorts being handed over from the commercial banks to FINA.

[98] That is why it is included in this case, too.

[99] This may be partly explained by the tax "peak season"; by the end of February individuals need to file personal taxes.

[100] It is outside the scope of this case study, but still worth mentioning as another peculiarity. The entrepreneur was confused with the information on the price because it seemed to be overpriced. Namely, the mentioned price equalled the current market price for the proper office spaces in the centre of Zagreb (zone 1) and his enterprise was going to operate in a part of the living apartment in the zone 2 (that is the way Zagreb local authorities marked it for the purposes of parking payments).

supposed to put in the rental contract as an obligation of his enterprise since he is using part of his apartment as his office. Tax advisers in the Local tax office and Central tax office were not able to answer this quite specific, yet very common, question. According to the tax officers and tax advisers this is because it is not defined by any law, but it may be a problem if tax inspector assesses it that way. Luckily, the entrepreneur had a very experienced bookkeeper that provided him with bookkeeping contract and several samples of office rental contracts. But, she could not help either with the issues that tax advisers were not able to answer (Supanc, personal communication, 2011). The consultation processes again caused additional transaction costs at the initial stage of the company that then still did not make any turnover.

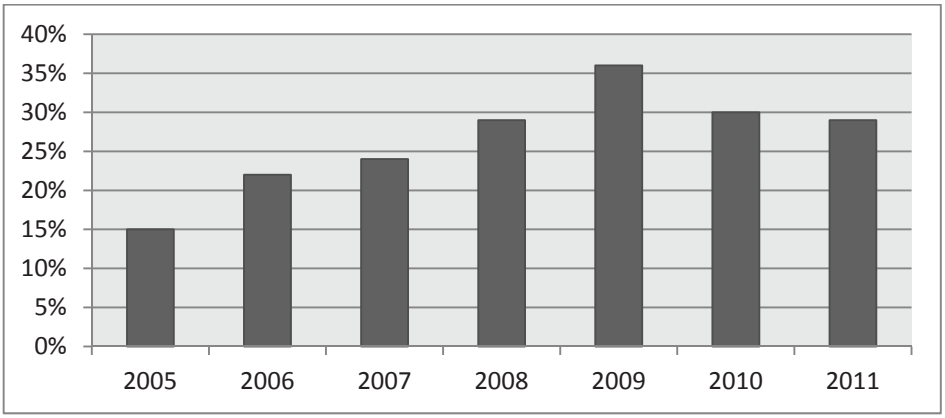


Figure 4. Companies registered through Hitro.hr e-Company service (as a % of all registered companies)
Source: *Hitro*, 2012.

Finally, after 35 days the entrepreneur managed to finish the process of the registration of his limited liability company for business consulting. This total of 35 days is comprised of 23 days that were previously dealt through Hitro.hr e-Company within 1-3 days and additional 12 days with tax authorities. He spent 4,600 HRK throughout this administrative journey, and in addition had to invest 20,000 HRK as the initial capital that can be withdrawn once the registration process is over. Regarding the fees, it is a paradox that a fee of 400 HRK is paid for the intellectual work of the judges whereas a fee for the mandatory announcement in Official Gazette costs 900 HRK. And, same as in many other countries it could be done online for free or against a small fee.

In general, the deterioration of Hitro.hr e-Company service is likely to influence the number of companies registered through it. After the trend of continuous increase (Figure 4), the share of companies registered through Hitro.hr started decreasing in 2010. It is highly probable that Hitro.hr decreased presence in the media and lacking commitment of the incumbents influenced that result and the decrease was continued in 2011 when the changes affecting the first step of the registration process happened.

4. Hitro.hr behind the curtains

According to the interviewees[101] there is no conspiracy behind changes of Law that led to a sudden discontinuance of Hitro.hr e-Company as a one-stop shop and made it one of the stops of the company registration process. The "only" minus is that the changes of the Laws were literally brought in a day, without any impact assessment. The reasons for the related set of unclear modifications and inconsistencies need to be analysed through two perspectives: Hitro.hr as a whole and e-Company with its own features and related groups.

[101] Because of the sensitivity of information provided, interviewees requested to stay anonymous.

It is easily noticeable, and interviewees confirm it from their everyday experience, that political support for the implementation of Hitro.hr vanished. This may seem surprising regarding both governments: the current (SDP / HNS led by Zoran Milanović) and the previous one (HDZ led first by Ivo Sanader, and then by Jadranka Kosor). Namely, the initial decision on establishing Hitro.hr dates all the way back to 2002 when SDP was in power and it was one of the requirements of the EU Stabilisation and Accession Agreement. It seems that SDP forgot both facts that, if not substantially, could be used for the promotion of their continuous efforts for business climate improvement. In 2005, HDZ Government actually started the implementation of Hitro.hr project and made it one of the most visible reforms. Sanader was present at most of the openings of new offices and was enthusiastically presenting new services. When he abruptly left Government in July 2009, Jadranka Kosor became a Prime Minister and was expected to continue the projects initiated by the Government. Yet, despite the success of Hitro.hr reforms, Sanader's successors considered Hitro.hr to be Sanader's brand and did not want to have anything with it. That statement was never publicly disclosed, the instructions were only given behind closed doors (anonymous interviewees, 2011). Not only that there was no political support, but the signs of mobbing emerged, too. At the beginning of Kosor's mandate the Hitro.hr team was by political decree moved to worse space. For the rest of her mandate that lasted for 2.5 years, there was no support whatsoever. It additionally worsened the improvement of the entire e-Government system that because of all its transparent features (time stamp, for instance) was in different ways blocked by many parties.

Regarding e-Company, there were various obstacles with the trade courts. There are thirteen trade courts all over Croatia in charge of registering companies' names and despite the same Law they have different court practices. That results in confusion among entrepreneurs. Even within the same trade court there are different practices influencing even micro details. For instance, it was well known that one judge never let entrepreneurs register marketing as a business activity because he insisted on a word that he considered Croatian synonym for marketing. And this word is not a synonym as it is a translation of the word promotion[102]. Overall, the work of most of the judges is neither transparent nor consistent. In some countries analysed and visited by Hitro.hr team, court advisors are in charge in approving the names of the companies. This way the overload of the judges is avoided. Yet, Croatian judges were not in favour of handing over that task to their advisers and being consulted only in complex cases. They also opposed the introduction of an electronic template for their decisions that would be a part of e-Company procedure. They explained it by losing their independence and existing discretionary rights, both considered to be crucial for their work. There are other organisational problems within trade courts as well. Some trade courts have only one judge in charge of registering companies (it is deemed to be a "specialised judge"), so when that person is absent because of holiday, sick leave or a business trip, everything is on hold. There is also a week when throughout Croatia everything is on hold because of the Annual Summit of judges lasting five days. Moreover, whenever there is an opportunity to organise a long weekend, if for instance if a public holiday is on Thursday, common practice for the working day in between is to leave only one person at the court. This employee is on duty, but usually does not have any operational authority. Even though it seems intolerable, only media headlines sometimes raise that topic.

Even before January 2011 and name check being returned to the trade courts, judges and public notaries used to repeatedly accuse Hitro.hr team of being "tattletales". Judges did not want to be urged to complete the documentation for the registration of the company; and public notaries did not like to be asked about their prices, i. e. precise information on costs of their services. The transparency of public notaries' charges became a pressing issue because some notaries charged

[102] There is no Croatian word for marketing, and the only word used appropriately is actually marketing. Promotion (*promidžba* in Croatian) is only a part of marketing activities.

almost a double fee for the same services as they colleagues. These were mostly the ones at the most frequent locations like city centre. One entrepreneur commented on the role of public notaries in general:

"In the hell, I would give public notaries even worse treatment than Zagreb taxi drivers. You can't avoid those arrogant monopolists[103]." (Globus, 2010)

Nevertheless, charging different fees was legal because their fees are listed as ranges, not as fixed amounts, so some notaries (mis)used that pricing system. Additionally, it became a common wisdom that some notaries could register the companies faster (these usually coincide with the overpriced ones) because they developed better relations with the court employees mostly through unofficial channels.

Coming back to the emphasis on the functioning of e-Government, it needs to be noted that IT infrastructure in Croatian public administration is very advanced; "it is a Ferrari" according to Hitro.hr Head. The problem is that it is underused due to all afore-mentioned factors and reluctance of bureaucrats. Hitro.hr team still keeps proposing changes that would make the situation better. A name reservation document is one of the changes they managed to put on the implementation agenda. It is considered to be a good practice in numerous countries as it enables the entrepreneur to book the approved name(s) against a small fee for a period of thirty days. During that period the entrepreneur can solve other formalities of the registration process. That novelty still does not compensate for the missing one-stop shop, but shows that there are bureaucrats who still care about the primary goal of their job.

5. Hitro.hr: Conclusions drawn, lessons learnt?

Hitro.hr is yet another example of the institutional reform that targeted business sector and was designed, implemented and continuously improved in a business-friendly way. Unexpectedly, the processes in practice have stopped functioning properly. Because of the changes in legislation that did not undergo ex ante impact assessment, there is both a clear sense and the indicators showing backward steps. Furthermore, simultaneous changes in several related laws and regulations[104] and lack of information and unpreparedness for their implementation among the street-level bureaucrats force the entrepreneurs to waste additional time and financial resources in order to deal with all the activities ranging from waiting in the lines when the IT system in the bank is blocked to getting additional advice on how to write certain articles in the contracts required by tax authorities. Despite its validity, this is only a publicly available flip of the coin. The other side of the coin discovered through fieldwork proved to be even more insightful.

The influence of the top down change and the (in)efficiency of the system were planned to be observed with particular reference to the work of the front desk employees. It would serve as an additional explanation for Croatian drop according to registering a company indicator provided by several international benchmarks. In the course of fieldwork analysis, it was confirmed that the background of the problem definitely included sudden legal changes, but also arbitrariness of the politicians. The latter may seem solely as an obstacle. But it enabled at the same time the unsystematic changes directed by randomness and interest groups. Despite nominal and sometimes substantial support of both left wing (SDP) and right wing (HDZ) governments, Hitro.hr seems to be left alone to cope with identified interest groups on one side and chaotic processes of law– and decision-making on the other. This rather confirms the necessity for the economists to understand the world of the politicians, if they want to have the enforcement done.

[103] Until recently taxi drivers had a monopoly in Zagreb. As a result, taxi services in Zagreb were among the most expensive in Europe.
[104] Law on companies and Law on payment system, for instance.

The e-Company case showed that messy environment with instantly decreased political support enabled a group of change-reluctant and power-inclined judges to install the minor changes of the law that had significant effect on the company registration process. It would be rather useful if the judges included in drafting the change proposals had foreseen the implications of it and had at least warned the Hitro.hr team of the emerging novelties. If the judges did that, Hitro.hr would at least be able to provide more reliable information to the entrepreneurs. In addition, the cumbersome court procedures were already a matter of complaints before 2011. Yet, despite its obvious inefficiency the judges' claim of the last resort, that cannot be disputed, is always the necessity for the judiciary independency. While e-Company is losing its importance, public notaries are even more oriented towards the cooperation with the Trade Court Register employees. Some of them had previously noticed some holes in the system and obviously they used them. These include charging the highest possible fee for company registration documentation because this service is comprised of several steps and the charges are defined as ranges, and not as strict amounts. The other possibility is in improving the relations with the Court employees by offering small bribes in order for the public notary's files to end up on the top of the pile. It is not an alibi for the opportunistic notaries, but those actions are actually underpinned by the system, i. e. non existing precise fee for a company registration documents and non-functioning e-Government that would make the flow of the Trade Court documents transparent and disable unnecessary manual interventions.

Throughout the process presented, the market-oriented service providers showed significantly higher responsiveness than public services employees. The former group includes bookkeepers, public notaries and commercial bank, whereas the latter one is consisted of trade court employees and tax officers. Hitro.hr e-Company employees seem to be "stuck" somewhere in between, they seem to be enthusiastic and willing to help, but easily lose their credibility since the primary aim of their existence is currently lost. The lower quality of public services in this case is another proof of inefficiency of the overprotective role of the State towards its employees[105]. Insufficient quality of services is reflected in several aspects: questionable availability and reliability, and mismatch with the needs of the market. The first two have already been explained, and the last aspect is best justified by the case of the portrayed entrepreneur. He, same as most of the early-stage entrepreneurs in Croatia, did not have a financial back up and had to focus on minimising the costs in order to survive the initial period. That is why, for instance, the living space is used as the office, but he could not get straightforward information on the required details of the office rental contract required by tax authorities. At the same time, he was warned about the possible penalties. That situation additionally pinpoints the need of tax authorities' competences for micro and small entrepreneurs that make 99% of all Croatian entrepreneurs.

If observing the main financial investment of the entrepreneur in the registration process, there is no difference relative to e-Company optimal functioning. Still, this is only if opportunity and transaction costs are not taken into account at all. In terms of time, the results are even more unfavourable than expected. Drawing upon majority of Croatian cases, the necessity-driven entrepreneur was portrayed. Yet, these obstacles are also likely to hinder the opportunity-driven entrepreneurs with reasonable financial resources. Let alone large foreign investments when choosing the best location for their business. Still, despite all the obvious and all the hidden wide and narrowed aspects of the company registration process, there are no signs that lessons are learnt at any of the levels necessary for the implementation and monitoring. The people[106] who understand the development of Hitro.hr e-Company and all the implications of its changes and are willing to persevere in improving it are both experts within and outside public administration. The problem is that they seem to be increasingly distanced by a misunderstanding gap from the

[105] The same was found in another case of a failed business environment reform – Regulatory Guillotine adapted as Hitrorez in Croatia (Šimić Banović, 2015).
[106] Some of them interviewed for this case.

majority of decision makers. And this further underpins the manoeuvre space for the vested interests. Even though it may seem trivial as a conclusion, in order to solve this situation the vicious circle needs to be broken. And the breaker of it is unlikely to be seen at this point.

Note: The initial research on the topic was conducted for the Doctoral Dissertation 'Institutional Change in Transition Economies: Analysis of the Croatian Business Environment' defended at the Faculty of Economics, University of Ljubljana in December 2012.

References

1. Barseghyan, L (2008). Entry costs and cross-country differences in productivity and output. *Journal of Economic Growth*. 13(2). 145-167
2. CEPOR (2011). *Izvješće o malim i srednjim poduzetnicima u Hrvatskoj - 2011*. [The Report on Small and Medium Enterprises in Croatia in 2011]. Zagreb: CEPOR – Centar za politiku razvoja malih poduzeća. http://www.cepor.hr/SME%20godisnjak_final.pdf
3. CEPOR (2015). *Small and Medium Enterprises Report – Croatia 2014.* CEPOR – SMEs and Entrepreneurship Policy Center. http://www.cepor.hr/wp-content/uploads/2015/03/Cepor-godisnje-izvjesce-ENG-web-2014.pdf
4. Ciccone, A. and Papaioannou (2007). Red Tape and Delayed Entry. *European Central Bank Working Paper Series*. No. 758. https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp758.pdf?9c1b13cef285577e19a29c9965b73454
5. Desai, M., Gompers, P. & Lerner, J. (2003). Institutions, Capital Constraints and Entrepreneurial Firm Dynamics: Evidence from Europe, NBER Working Paper No 10165 http://www.nber.org/papers/w10165
6. De Soto, H. (1989). The Other Path: The Economic Answer to Terrorism.
7. Djankov, S, La Porta, R, Lopez-de-Silanes, F & Shleifer, A (2002). The Regulation of Entry. *The Quarterly Journal of Economics*. 117(1). 1-37. doi:10.1162/003355302753399436
8. Djankov, S., McLiesh, C., & Ramalho, R. M. (2006). Regulation and growth. *Economics Letters*. 92(3), 395-401.
9. Hitro.hr Official Website
10. Kelly, D. J, Singer, S., Herrington, M. (2012). *The Global Entrepreneurship Monitor 2011 Global Report*. London: Global Entrepreneurship Research Association. http://www.gemconsortium.org/docs/2201/gem-2011-global-report
11. Leora Klapper, Luc Laeven, Raghuram Rajan (2004). Business Environment and Firm Entry: Evidence from International Data. NBER Working Paper No. 10380 http://www.nber.org/papers/w10380
12. Norbaeck, P-J, Persson, L, Douhan, R (2014). Entrepreneurship Policy and Globalization. *Journal of Development Economics*. Vol. 110. 22-38
13. Odluka o osnivanju stalnih službi u županijskim sudovima [The decision on the establishment of permanent service in the municipal courts]. *Ministry of Justice*, 30 December 2010.
14. Odluka o proglašenju Zakona o područjima i sjedištima sudova [The decision on the promulgation of the law of the courts' territory and seats]. *Narodne Novine* [Official Gazette] no. 144/2010.
15. Šimić Banović, R. (2015). Cutting red ribbon, but not the red tape: the failure of a business environment reform in Croatia. *Post-Communist Economies*. 27(1). 106-128
16. Večernji list (2011, February 8). *Krah Hitro.hr-a: Otvaranje tvrtke opet traje tjednima.* [Hitro.hr crash: Registering a Company Takes Weeks Again].

http://www.vecernji.hr/vijesti/krah-hitro-hr-a-otvaranje-tvrtke-opet-traje-tjednima-clanak-249697

17. World Bank Group (2012). *Doing Business website* – Historical Data Sets and Trends Data, 2012.

Interviews and other personal communication

- Alen Šaško, SMEs Manager, Zagrebačka banka
- Božica Bukovski Supanc, General Manager, Infoproces - Bookkeeping services
- Ivana Vrcić, Senior Associate at the Public Notary Office Šarčević
- Željka Bregeš, Judge at the Trade Court in Zagreb
- Anonymous interviewees (upon their requests)

BUSINESS ENVIRONMENT AND FINANCIAL AWARENESS OF SME MANAGERS

Prof. dr Novo Plakalović

Doc. dr Almir Alihodžić

Abstract

In this paper we investigate the degree of financial awareness of SMEs managers in the Republic of Srpska. We start from the assumption that the owners and / or managers of small and medium-sized enterprises (SME) do not have the appropriate level of financial awareness in certain significant aspects of financial management. Although one might expect that the owners and managers of small and medium-sized firms have significant expertise in financial management for which is required of owning financial awareness and literacy, in practice this is not the case. The reasons for this we are trying to find in essential characteristics of the domestic business environment in which SMEs operate. Empirical research has been done on the basis of survey research and interviews with managers and owners of small and midle enterpises- SMEs.

Key words: *Financial awareness, financial literacy, business environment, managers of SMEs, finanacial management,*

1.Introduction

In this paper we investigate financial awarenes and financial litaracy level of the managers of small and medium enterprises (SMEs) in Republic of Srpska (RS), one of the two entities in Bosnia and Herzegovina (B&H). We start with the assumption that the owners and managers of SMEs are simultaneously inadequately financial awarenes and financially literate . We start with very strong hypothesis that contradicts the fact that the observed sample mainly includes enterprises that have been successful for a prolonged period. The fact that entrepreneurs, owners and managers are financially illiterate but at the same time successful becomes a puzzle and a paradox. The investigation has been realized using survey and interview amongst owners/managers of a number of SMEs in RS. The results show that our initial hypothesis and expectations were sound and we concluded that financial literacy amongst owners/managers of observed companies was unexpectedly low.

2.Methodology

Starting hypothesis in this research is that the level of financial awareness and financial literacy of SMEs managers is low. The reasons for this can be found in a business environment that creates the need for a higher level of financial awareness and skills.

In this research we are using survey and interviews. Survey is constructed in such a way that examinees cannot guess the true aim of the survey at the first glance. The rationale is that the survey should not have negative effect on examinee's pride so that they would not refuse to cooperate. Owners and managers of successful SMEs are not very conducive to the idea that somebody checks their level of financial and managerial knowledge in general so that the conduct of this survey was quite delicate. We approached managers through private connections, most often through highly positioned banking managers who have client relationships with enterprises of surveyed owners and/or managers. The choice of respondents was random because respondents were chosen using no criteria but readiness to answer the questions taking into account client relationship with bank or microcredit organization. Questions included in the survey included alternative answers or options in advance: yes, no or in between. Often there was a space for a specific answer. First part of the survey contained questions related to general business climate, obstacles and their opinions about possible betterment of business climate. Other group of questions were aimed at checking financial and analytical capacity of the respondents i.e. kinds and the scope of usage of basic tools of financial analysis.

We took a survey among 51 owners/managers of SMEs. . We carried out the survey in Banjaluka and East Sarajevo regions. These regions are two most important regions in RS when it comes to the density of population and business activity. All SMEs are successful and profitable companies. Out of 51 surveyed SMEs about 70% are small companies (up to 50 employess) and the rest are medium-size companies. 27 of SMEs belong to the group of companies with 40-70 employees and the rest of SMEs have less/or 25 employees. One company has total revenue of around 7 million euro per year, another one has total revenue of around 5,5 million euro per year, several companies have total revenue per year ranging from 3 to 4 million euro and the rest of companies has 500,000 euro or less.

History of SMEs is mostly short. Out of the surveyed SMEs 12 companies have been in business for less than 10 years. Most companies have been in business between 10 and 25 years (36 companies or 70%). Three companies are companies of long standing (30, 45 and 50 years). Being a company with long standing in B&H and RS is more an exception than the rule. Random sample is such that the structure of the respondents is very similar to the factual structure of SMEs according to the business that the company performs. The highest number of the surveyed companies belongs to trade sector 31% (in RS 38% of companies are in this sector). 23% of the

surveyed companies are industrial companies (in RS 16% of companies are in industrial sector). Similarities are even more expressed in other sectors. 28% of the respondents are owners, 25% are managers and 47 % are simultaneously owners and managers.

The answers given by the economists were "most accurate" as it was to be expected and an owner of accounting and revision company had (in scholar terms) most accurate answers. We concluded that respondents are quite satisfied with their subject knowledge with regard to financial management. It is similar to conlclusion of another reseach (Prime Communication) where only 12% of respondents stated that they are interested in financial management education. (www.porodicnefirme.com).

3. Importance of positive environment for SME business

Promotion of successful development of poor countries assumes holistic approach because development not only depends on economic conditions but on sociological and political circumstances as well. (Beaugrand, 2004. p.14). Sociological aspects are related to entrepreneurial culture prevailing in a country, region or ethnic group. How much operational space will entrepreneurial spirit obtain depends on real material and institutional factors. Mere entrepreneurial spirit, strength and energy depend on anthropological factors, ethnographic characteristics, culture (ethnic group mentality) and other characteristics which are not easily measurable and quantified. These factors have significant influence on entrepreneurial strength, business ethics and moral, politics and political behavior of certain groups and individuals.

Essential stepping stone towards the betterment of entrepreneurship and entrepreneurial culture is establishment of good (positive and stimulating) environment and basic conditions for the development of entrepreneurship and innovations. Apart from these conditions development depends on another important precondition which is provision of crucial public goods. Proper environment for entrepreneurial activities is consistent with the emphasis on the importance of institutions as a key foundation of economic growth. Evolutionary theory of economic change states that basic preconditions of sociological and economic development are political stability, rule of law, reputation and responsibility, efficacy of state government, light regulatory burden, protected property rights and absence of blackmailing. Experience shows that sound economic and financial politics and investment growth are not enough to promote sustainable development. Good governance and rule of law are considered to be the most important developmental factors (Beaugrand, 2004. p.17). Easterly (2001) states that factors of successful entrepreneurship in less developed countries are: peace and stability, rule of law and protection of property rights, mentality, economic initiatives, basic infrastructure, access to capital and education.

In this context, we can see that some specific cultural norms influence behavior in terms of savings. In order to explain problem of illiquidity of companies and individuals it is very inspiring to have a look at historical and anthropological context of this phenomenon in many African societies where it is still difficult to save liquid resources outside demand from the rest of the family (Paltteau, 1996.). "Hiding" and "running from" liquid resources have its real and rational economic reasons and causes towards preferences for illiquid assets for mid-term and long-term needs.Sve ovo nam zvuči dosta poznato. It has effects on the measurement of financial capability. Not expected to financial education in such conditions affect the behavior change.

4.What is financial awareness?

Marriott and Mellet carried on research (1991) with the aim to reckon the managers' adequacy based upon the premise that if managers lack necessary skills their decisions will be wrong. Financial awareness can be defined as "... the manager's ability to understand and analyze financial information and act accordingly" (Mariott and Mellett, 1996 p.64). They measured the capacity of examinees to define and calculate a number of accounting measures though the ability to calculate does not guarantee that one is capable to understand and analyze.

Financial literacy can be defined as ‘'ability to obtain, understand and evaluate the relevant information necessary to make decision with an awareness of the likely financial consequences’’. (.Bartlett A.& Chandler A. 1997. p.31). This is a set of skills that must be held by all those who want to run their business successfully and to be able to follow and understand the financial world (Berman & Knight, 2007. p.9). They must be able to read balance sheets and financial statements of companies and financial institutions and to understand their mutual relations and influences.

Financial literacy is most broadly defined as the capacity to analyze. Its content is now being shifted from financial knowledge and understanding to the inclusion of financial skills and competencies, attitudes and behavior. Nowadays there is consensus that this broader concept is more relevant. It is still of topical interest how best to define, measure and influence.

Low income countries and middle income countries show a number of common and idiosyncratic characteristics that will have an influence on financial behavior which is different than in high income countries with regard to measurement of financial capability and effectiveness of financial education and alternative intervention. (Holzmann R. 2010. p.13). In poor countries high percentage of population is financially illiterate and outside financial sector.

Information relevant to the decision-making does not necessarily have to be strictly financial. The information that will be smaller inflow student is not financial but the consequences in the form of smaller inflow of funds will be obvious if funding is related to the number of students. Understanding this is fundamental financial awareness. The individual must be able to receive and understand relevant information in order to act. Financial awareness and literacy can only provide an individual with the information necessary to make a decision, but can not ensure the adoption of " right " decision.

Individuals *inter alia* do not always make decisions that are based on economic rationality. Financial literacy is a prerequisite for proper decision-making but not enough. If the results are bad then the decision is a financial literacy insignificant. Financial literacy is seen as a function of correct decisions that bring results. It is a tool that makes decision-making more well- informed. The model assumes that the individual uses a combination of skills, technology and, resources and possesses contextual knowledge that gives meaning to information. It is necessary to have sufficient information in order to make decisions based on an awareness of the financial consequences (Bartlett A. & A. Chandler 1997, p.33.) The emphasis is on literacy that enables the entire process to a desired result.

It is suggested that financial literacy should be conceptualized as a complex phenomenon where individuals give meaning to information for the purpose of quality assessment of the financial consequences of their decisions taken in order to achieve the desired results. In this case, financial awareness is part of financial literacy. For the individual to be financially literate, they must first be financially aware. However, an individual may be financially aware, but at the same time not financially literate. Managers may test well in financial literacy, but fail in decision-

making without awareness of the financial consequences. They may not understand the factors that are relevant to their decision-making so that they may truly be financially illiterate.

They may be able to locate and understand information relevant to decision making. Financial awareness may be tested as a measure of understanding of terms that are already present such as balance, budget, and depreciation. The relationship between the understanding of these terms and the ability of people to make decisions has not been investigated. Individuals can have excellent knowledge of certain financial terms that make them financially aware, but they may not be able to recognize the relevance of other information, and that prevents them from recognizing the financial consequences of any decision they make. It may ultimately prevent them from achieving desired outcomes. In this case, the individual may be financially conscious but financially illiterate. Exploring the impact of the education level on the market share shows that cognitive ability is more important than education. It increases market share. This contradicts previous findings that financial literacy influences decision-making (Cole S. Shastry G.2008). All these results point to the need to approach this issue in a holistic manner, as the exclusive study of financial literacy is inadequate explaining the behavior of managers and their efficiency and the ability of them to make good and right decisions.

In many countries, financial literacy is interpreted as the ability to analyze information with the help of financial knowledge understanding, skills, competencies, attitudes and behaviors. There is a consensus that this broader concept is a more relevant to us as we define, measure and influence. It is still a moving target. According to Holzmann, R. (2010.p.4.) a very large number of interventions are aimed at improving financial literacy but rigorous monitoring and evaluation of such intervention are still the exception not the rule, particularly with regards to the measurement of impact (Holzmann, R. 2010.p.6.)

Extensive literature survey that tackles the issue of financial literacy can be found in Hustings, Madrian & Skimmyhorn, (2012). Question of the importance of the level of entrepreneurs' education is still to be explained and is not thoroughly investigated. A research realized in Ethiopia shows that small companies, which are owned by an ethnic group seen as the least educated, are very successful though the indicators of financial success gets better with higher educational level (Mengistae, 2001). Recently some authors question generally accepted and prevailing opinion that education is important for successful formulae of rapid development (Chang, 2010).

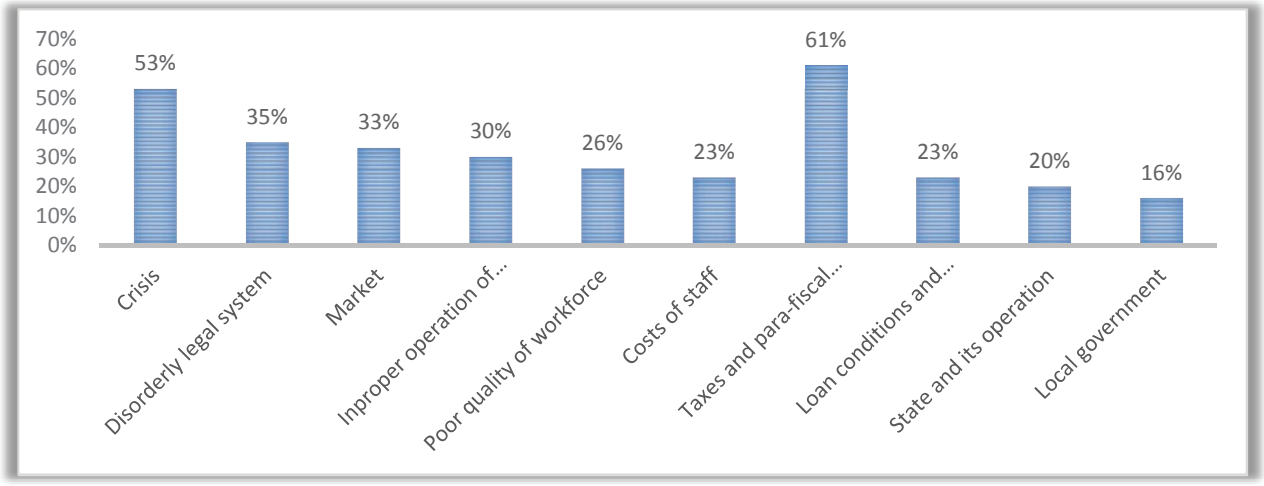
5.Results

5.1. Business environment

When asked what are the main obstacles faced by entrepreneurs and managers, most of the respondents (53%) circled, among several responses, " crisis ". Another factor in rank significance in the eyes of respondents is the unsettled legal system, as reported by 35% of respondents. The market is a problem for 33% of respondents. Inadequate actions of institutions were noted in 30% of responses and lack of training and poor quality of the workforce are issues for 26% of respondents. Staff costs (salaries, taxes and contributions) are too high for 23% of respondents and taxes and para-fiscal charges are a problem for 61%. Loan conditions and poor quality of the workforce offered by the labor market have been a nuisance for 23% of the respondents. The state and its actions (or “inaction”) are a problem for 20% of respondents. In last place are the activities of political parties and local authorities, which are a problem for 16% of respondents.

This is represented in the following figure:

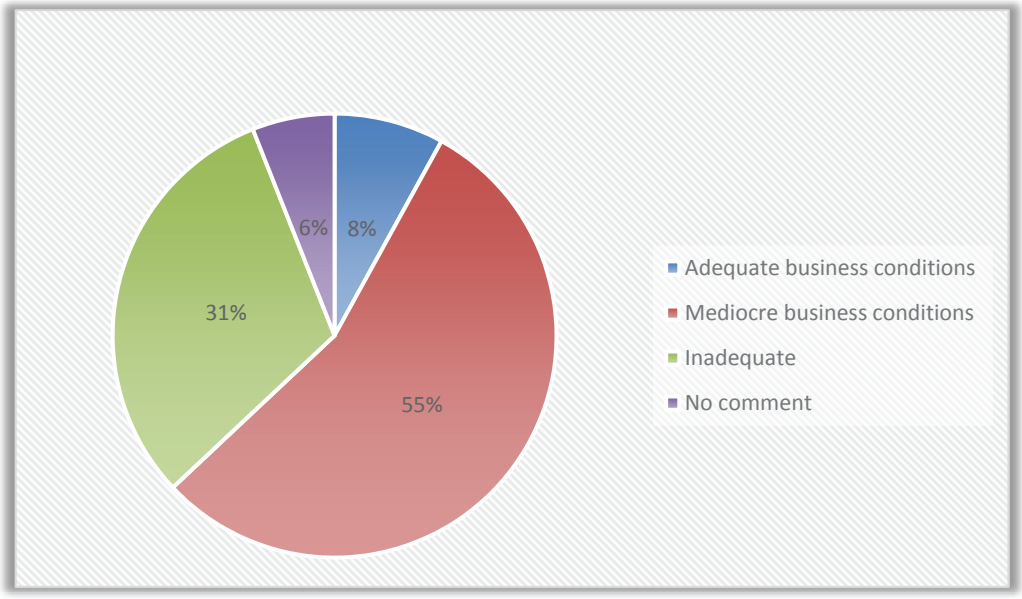
Figure 1: Assessment of obstacles in business environement



Source: Calculation by author's

In the general assessment of the business conditions of SMEs, only 8% of the respondents believe that these conditions are adequate. A lack of adequate conditions for business SMEs considered 31% of respondents. Business conditions as a moderately estimated 55% of respondents, while 6% have not declared themselves on the subject. Overall, it could be concluded that the perception of entrepreneurs and managers regarding the business conditions of SMEs as a whole are unfavorable. This should take into account the fact that this is a mostly successful or very successful SME.

Figure 2: Assessment of business conditions adequacy



Source: Calculation by author's

By research from Prime Communications from Banja Luka on a sample of 208 private family enterprises as key observations entrepreneur highlights business challenges related to the high duty to your country (nearly 60% of respondents cited this as the biggest problem). Another problem is difficult to find quality and skilled workers to 13%. Administrative difficulties are a hindrance to 12% of a strong domestic competition for 7.7% of the respondents. Foreign competition is a problem for less than 4% of respondents. About 80% of them, does not cooperate or are very dissatisfied with the cooperation with the Chambers of Commerce of RS and BH. Only 8% think that the Government is taking measures to improve the conditions of operations of these companies. For 15% of the surveyed municipalities and local communities are open for cooperation with these companies (www.porodicnefirme.com).

Our findings differ somewhat from the conclusions of the local authors who are often invited to research Doing Business Rankings (World Bank) at which the domestic business environment is constantly rated very poorly. Position of the list of 189 countries of the 107 positions. Therefore, low ranking contributes to most of the problems of obtaining construction permits (rank 182), joining the current (163), paying taxes (151) and starting a business (147). The best position is to resolve insolvency (34), getting credit (36) registering property (88) (Lojpur A. 2015). In addition to indicators related to the legal environment to be used in the preparation of Doing Business Rankings, Džakula M. and Danon B. (2015) pointed out other factors such as para-fiscal charges, infrastructure, political instability and weak institutional support, inadequate human capital (practically bad system education) and natural resources. In our research, a relatively small number of respondents see the problem in politics, provide the human capital, infrastructure and the likes. This is largely attributed to the specifics of the our sample because it is mostly good companies.

Most of the comments and suggestions from the respondents in our sample were related to a tax burden that is too large fiscal and para-fiscal benefits which, in the opinion of respondents should significantly loosen. 60% of respondents state that high fiscal and para-fiscal burdens present basic obstacles to successfully run businesses. Regarding the institutional factors that depress the operations of SMEs surveyed, accentuated the absence of well-ordered legal systems and 35% of respondents referred to it. The reasons are the inefficient operation of public administration, various administrative obstacles, (too long a time for obtaining various permits and approvals, certification of goods, expensive licenses, problems in obtaining licenses, etc.). Non-compliance with the rules, inefficient courts and a weak rule of law in general. Therefore considered necessary to improve the efficiency of the courts. For SMEs which jobs are offered on a competitive basis on Public Procurement, a lot of comments are available regarding their perception that they are not equal in the allocation of these jobs, there is unfair competition, and certain leniency towards companies that have priority in obtaining jobs. These privileges are likely to arise from belonging to owners and managers of certain powerful interest groups or connected in some other way with stakeholders. The perception of corruption is generally high.

For some companies the problem is the large shadow economy, where companies from the gray zone undercut competing companies in the same industry (do not pay taxes or other obligations to the state), and on this basis to achieve a significant competitive advantage. A higher number of respondents pointed out the weak mechanisms for the collection of receivables and inadequate legislation in this regard.

Economic crisis presents business challenge for 53% of entrepreneurs/managers. Market is a problem for 33% of respondents whereas 30% of respondents state that institutions perform their tasks inadequately. Poorly trained and low quality workforce present an obstacle for 26% of respondents.

Owners/managers of SMEs complain about unfair competition and privileged position of certain companies connected with influential interest groups when they apply on public procurement tenders. Underground economy in certain sectors is a source of disloyal competition for the companies that run businesses respecting all laws and regulations.

5.2. Results of financial awareness survey

First question that relates to the way how owners/managers estimate profitability of their investments referred to the way investment decisions are made. This question referred to the provision of high value assets that are partly financed with bank credit. We were interested if investment elaborates are produced when respondents invest in high value assets. Only 42% of respondents answered that they would produce investment elaborates even if bank did not request it. It is common practice that banks request investment elaborates. 11% of respondents state that they produce investment elaborates only because bank requests it. 33% of respondents state that investment elaborate is not necessary when investing in high value assets. It is open to debate if all 42% of respondents were genuine when they stated that they would produce investment elaborate even if bank did not request it.

During decision making process 21% of respondents make decisions without consultations with anybody. It can be understood when a company is small and has low turnover. It is puzzling that only small number of respondents consult financial experts during decision making process. Majority consult only with associates but associates are not financial experts. Only 25% of respondents consult financial experts. According to Prime Communications survey, the owners of family businesses make decisions by themselves in 30% of the cases. Almost 50% most believe to family members (probably " associates" from our survey) and 20% of the owners believe to financial experts outside family. (www.porodicnefirme.com)

Bartlett & Chandler (1997. p.259) conclude that company stockholders do not often read financial statements. For that reason narrative section of annual report has increased. Despite this fact 85% of them make decisions by themselves whereas only 8% actually actively invest. Possible conclusion is that financial awareness is related to activism. Those who are financially more aware trade more frequently. It is established that majority reads narrative parts of reports but it is not clear if it is due to lack of financial skills or simply because they understand narrative parts of reports. Another rationale is that they are capable of reading the words but are not familiar with the concepts behind the words.

Usage of financial reports in terms of preferences related to presentational style carries a lot of information on financial and analytical capacity and preferences of our respondents. It is surprising that 70% of respondents prefer reading and using financial statements which are simultaneously presented in form of numbers and written comments. Only 28% of respondents prefer reports given in the form of numbers. Financial analyst is only interested in numbers but not in written reports that could make certain suggestions to reader leading him towards the goal determined by the financial analyst.

The most interesting part of the survey was related to questions of the usage of ratios in financial analysis of company. We received the following answers to the question of which ratios are regularly used in company: profitability 36%, indebtedness 43%, efficacy 38% and liquidity 62%. This is surprisingly small percentage. The rest of respondents (approximately 60%) do not follow any financial indicators apart from "liquidity" indicators. Unintentionally this question turned to be a trap. The following question aimed at checking how respondents follow liquidity coefficients. The answer was that only 20% of respondents follow liquidity coefficients. Majority

of them follow liquidity by simply checking the balance of their current account. Only 6% of respondents encircled the following answer: " Creditors constantly remind me of my obligations". This is small percentage of those who have liquidity problems. Again, this made us believe that respondents come from successful companies.

Although surveyed owners and managers come from successful companies which do not have liquidity problems it should not be neglected that illiquidity problems have long tradition in domestic economy. Traditionally there is "culture of illiquidity" in which everybody owes money to everybody. Observed sample in our survey "sticks out" a little bit from the general pattern of financial performances of domestic companies.

When it comes to following company profitability majority of owners/managers measures business results very simple - via "profit volumes". Indicator of efficiency of total firm resources which is measured as ratio of profit/returns/proceeds and own capital is followed by only 7% of the respondents.

Analysis of the results show that respondents often intended to give "right" but not honest answer. We witnessed a great number of declarative statements that were supposed to show that certain indicators are calculated such as efficiency, profitability, indebtedness, efficacy and liquidity indicators. In reality only small number of respondents calculated these indicators.

When it comes to the evaluation of the intangible value of their own company in which the main managers / owners, only 21% of the respondents reported that the company has intangible value and that they can assess how much it is in cash. Of those surveyed 39% stated that their company has intangible value but do not know how much it is. It is surprising that even 40% of respondents reported that their company has no intangible value.

When asked about the causes of failed business endeavors in the past 20% of respondents stated that main causes were wrong perceptions of future market movements. 77% of respondents stated that business failures were caused by "problems which I could not foresee". It was expected answer since entrepreneurs always face uncertainty. It took us by surprise that a few respondents (11%) stated that lack of success came from "insufficiently precise financial calculations and plans".

Results of our survey show that only 20% of respondents can be considered financially literate. Practically they received passing mark in this short test. These are owners and managers who are familiar with financial analysis and financial management. This percentage was arrived at by summing the answers which were reliable indicator of financial literacy and good knowledge of financial ratios and financial analysis. We emphasize only the most important. Financial statements which are shown in numerical form are preferred by only 28% of respondents. Liquidity coefficients are regularly followed by only 20% of respondents. Calculators of net present value and future value of money are used by only 20% of respondents on regular basis. Profitability is followed in proper way by 24% of respondents. Only 9% of respondents estimate the adequacy of profitability by comparing profit and total assets. Existence of company know-how and value attached to it is "recognized" by only 21% of respondents. Insufficiently precise financial calculations and plans are seen as the cause of poor and failed business endeavors by only 11% of respondents. This all leads to the conclusion that for all these entrepreneurs all other circumstances were more important than financial calculations which could not be accepted as rational and complete explanation of business failures. All business endeavors by the obvious logic begin with financial construction and every failure has financial implications. For every business failure financial calculation was consequentially almost always wrong and this can be sadly determined with certainty only ex post. (Plakalovic N.2015.p.)

One of the possible explanations how it is possible that the level of financial literacy of owners/managers is so low and at the same time they are successful can be found in the fact that the respondents run business in very uncompetitive environment. Most of SMEs do not face severe competition apart from companies which bid on public procurement tenders and companies whose products compete with cheap imported goods. Since they have quite secure market niche they do not have strong and reliable financial calculations which are based on competitive market prices. For this reason managers do not have to possess high level of financial literacy. Key factor is how to achieve and obtain "good" market price. For this reason nobody in our survey mentioned market competition as a problem. Prime Communications survey also showed that competition does not have some significant influence on SMEs business. Strong domestic competition is problem for only 7% of respondents (14 companies) whereas foreign competition is problem for 4% of respondents (8 companies) (www.porodicnefirme.com).

In the same survey respondents reported that the programs for the improvement of small and medium-sized businesses by the international community participated in only 11.5% of these companies. 45% of them attend various seminars and professional conferences and 11% think that there is no need for additional education. When selecting topics that interested them at seminars only 12% of those surveyed said they would be interested in financial management. This means that the respondents mostly are satisfied with the level of their knowledge, especially in finance (www.porodicnefirme.com).

6.Conclusions

The obtained results of the research, we came to the conclusion that very few of the surveyed managers / owners of businesses are financially literate. But no one could say that these entrepreneurs are financially unconscious. On some issues in the survey, they show a certain degree of financial awareness. We could not accurately determine the percentage of the sample because the survey focused on issues that are supposed to show their level of financial literacy. From discussions with managers and owners, we have concluded that they have rule financial categories that are relevant to their area of business. Finally, it is very difficult to say that they are unaware of the financial managers of successful small and medium-sized firms.

Low levels of financial literacy and financial knowledge indicate that this knowledge and skills are not of utmost importance for SMEs success. It is to be expected that, in underdeveloped and poor society such as B&H and its entity RS, financial knowledge and financial literacy are limited. It is possible that such kind of knowledge is neither absolutely necessary nor is an obstacle for successful business of many SMEs. Our insights lead to the conclusion that "life" or people solve problems by themselves better than any sophisticated technical and scientific engineering. For thriving business and entrepreneurship it is necessary to have favorable climate and environment which will enable that "life" and business people solve their problems, grow and advance further. This necessarily poses question whether higher level of financial intelligence and knowledge significantly prevent demise and closure of SMEs or make successful companies even more successful. This is the open question for further research. We found some reasons for prevalence of financial illiteracy in widespread "culture of illiquidity" and lack of strong competition for majority of surveyed SMEs. This all can lead to decreased need for the sophisticated way of financial management. Conventional wisdom holds that higher level of financial knowledge can give competitive edge to entrepreneur and help him to use his resources more efficiently. It remains a dilemma whether higher level of financial education would improve financial performances of companies which are run by financially aware and literate owners/managers.

Reference:

1. Bartlett A.& Chandler A. (1997), The Corporate Report and the Private Shareholder: Lee and Tweedie Twenty Years On, *British Accounting Review,* Vo. 29. (pp.245-261).
2. Beaugrand, P. (2004), And Schumpeter Said,''This Is How Thou Shalt Grow'': The Further Quest for Economic Growth in Poor Countries, *IMF Working Paper*, WP/04/40, (pp.1-22)
3. Berman K.& Knight J. (2006) , Financial intelligence, Business Literacy Institute, INC, Harvard Business School, Boston
4. Cole S.Shastry G. (2008) If You So Smart, Why Aren't You Rich? The Effects of Education, Financial Literacy and Cognitive Ability on Financial Market Participation, Harward Business Schol, *Working Paper*, 09-071
5. Čang H.Dž, (2013), *23 stvari koje vam ne kažu o kapitalizmu*, Mali vrt, Beograd
6. Džakula M. Danon B. (2015), Polovni ambijent u bosni I hercegovini-analiza tekućeg stanja I preoruke za unapređenje, *Acta conomica*, Godina XIII, Broj 12. Banjaluka
7. Easterly W (2001) *The Elusive Quest for Growth-Economists' Adventures and Misadventures in the Tropics*, Cambridge: MIT Press.
8. Hustings J. Madrian B.Skimmyhorn, W. (2012), Financial Literacy, Financial Education and Economic Outcome, *NBER Working Paper 18412,* september, http://nber.org/papers/w18412
9. Holzmann, R. (2010), Bringing financial literacy and education to low and middle income countries: The need to review, adjust and extend current wisdom, *Discussion paper series//Forschungsinstitut zur Zukunft der Arbeit,* No.5114, http://nbn-resolving.de/urn:nbn:de:101:1-201010132699
10. Lojpur A.(2015), Reindustrijalizacija-između zakašnjelog buđenja I nove paradigme privrednog rasta, *Acta conomica*, Godina XIII, Broj 12. Banjaluka
11. Marriot t D.N.Mellett H.J. (1991), The Financial Awareness of Managers an the Reformed NHS , *Occasional Research Papers* No.10, London: ACCA
12. Mengistae, T.(2001), ''Indigenous Ethnicity and Entreprenerial Success in Africa: Some Evidence from Ethipoia'', *World Bank research Working Paper*, no.2534, (www.worldbank.org.)
13. Prime Communications, Porodične firme u Republici Srpskoj,novembar 2012-februar 2013.g.www.porodicnefirme.com
14. Plakalović N. (2015) , Financial Literacy of SME Managers, Make Learn, International Conference, Bari, May
15. Platteau, J.P. (1996), Mutual Insurance as an Elusive Concept in Traditional Rural Societies'', *Journal of Development Studies* 23 (4), (pp.461-490).

CHALLENGING COMPETITION AT PUBLIC PROCUREMENT MARKETS: ARE SMES TOO BIG TO FAIL? THE CASE OF BIH AND CROATIA.

Sunčana Slijepčević, PhD[107]

Jelena Budak, PhD[108]

Edo Rajh, PhD[109]

Abstract

This study empirically evaluates the role and perspectives for SMEs to successfully compete at the public procurement markets. The government procurement markets in post-transition countries make a significant share of national economy and seemingly its importance rises in the times of economic crisis. The literature on public procurement and involvement of SMEs noted severe obstacles for companies to access public procurement markets, and the set of policies were established in the EU to promote SMEs involvement in public procurement. Our case study encompasses business sector in two post-transition countries, Croatia and Bosnia and Herzegovina (BiH) in order to explore competitiveness and entry barriers specifically for SMEs to participate at the public procurement market. We compare the views of managers and business people representing companies of the small and medium size on the level of competition and on the range and intensity of obstacles to participate at the public procurement tenders, in terms of availability of resources, corruption risks, transparency and fairness of procedure, clarity of documentation, principles and standards achieved, price, deadlines and other dimensions of public procurement. If there are differences observed between two countries, do they stem from the different EU membership status? Are there differences between subgroups of micro, small, and medium companies? Finally, we discuss whether public procurement is an opportunity for SMEs to grow bigger through public investments. In order to give plausible answers to these questions, we use the empirical evidence collected by the surveying of companies in BiH in 2014, and comparable data on Croatian companies surveyed in 2013. The findings are put in the context of public procurement as an opportunity to enhance growth and economic development in post-transition era.

Key words: *public procurement, small and medium enterprises, post-transition, competition*

[107] Institute of Economics, Zagreb, suncana@eizg.hr
[108] Institute of Economics, Zagreb, jbudak@eizg.hr
[109] Institute of Economics, Zagreb, erajh@eizg.hr

Introduction

This study empirically evaluates the role and perspectives for small and medium enterprises (SMEs) to successfully compete at the public procurement markets. The case study is based on experience of companies in two post-transition countries, Croatia and Bosnia and Herzegovina (BiH).

The size of public procurement markets worldwide is impressive. For developed economies the ratio of government procurement markets to GDP is about 15 to 20 percent of GDP (OECD, 2012) and in the European Union (EU) countries the share of public procurement is estimated to range between 10 and 25 percent (European Commission, 2015). The government procurement markets in post-transition countries make a significant share of national economy and seemingly its importance rises in the times of economic crisis. Previous research on public procurement and involvement of SMEs noted severe obstacles for companies to access public procurement markets, and the set of policies were established in the EU to promote SMEs involvement in public procurement (European Commission, 2010b). Here most of the research is focused to the government procurers i.e. to the demand side of public procurement markets and its (in)efficiencies. The shift to the supply side makes the new stream of the research in developed countries, yet comprehensive assessment of post-transition economies is missing.

We build on existing EU studies and on preliminary research conducted for Croatia (Budak and Rajh, 2014) that provided insights into the functionality of the system from the business sector perspective. Its findings have revealed new issues in the public procurement system in Croatia, a post-transition country and a new EU member state. Real experience, attitudes and practices of Croatian companies involved in public tenders showed to be more positive than intuitively expected, in particular regarding the professional capacity and integrity of procurers and low level of informal payments and corruption risk in public tenders process. These two topics are worth further exploring, especially in comparison to other similar countries. However, the most intriguing finding for Croatia was that low participation of SMEs in the public procurement market is not an issue. Therefore we extend the analysis to BiH in order to examine if this fact stands for another similar but somewhat different post-transition economy. By this comparative assessment we fill the gap in the scarcity of parallel studies in public procurement noted in the literature by Preuss (2009).

Our motivation was to see if public procurement is an opportunity for SMEs to grow bigger through public investments, and what would in that case be the appropriate policy measures to enhance involvement of SMEs in public tenders. What capacities should be built both at the side of procurers and suppliers, and is the fine tuning of policies needed to adjust them to principal contractors and subcontracting companies? Are these policies in line with the EU standards of public procurement? Are there differences observed between two countries that might stem from the different EU membership status? If micro firms experience different entry barriers compared to small and medium-sized companies, does it call for specifically designed policy answers?

In order to give plausible answers to these questions, we use the empirical evidence collected by the surveying companies in BiH in 2014, and comparable data on Croatian companies surveyed in 2013. The choice of these two countries in the region for a comparative assessment of SMEs in the public procurement is not by incident. Croatia and BiH have had similar problems in getting close to the European standards where Croatia had successfully finished the EU accession process. Further, both nations have been severely hit by economic crisis that slowed down the after war recovery of national economies. Historically, both states are former republics of ex-Yugoslavia what might have shaped perceptions and attitudes of business people in the region. The starting point of our assessment is narrative description of opinions collected in two country

surveys. We compare specifically the opinion of managers and business people representing companies of the small and medium size on the competition and entry barriers. We asked about range and intensity of obstacles to participate at the public procurement tender, availability of resource, corruption risks, transparency and fairness of procedure, clarity of documentation, principles and standards achieved, price, and other dimensions. Finally we conclude with comparative pros and cons for SMEs to compete at public procurement markets. The findings are put in the context of public procurement as an opportunity to enhance growth and economic development in post-transition era.

The paper is structured as follows. Next we proceed with the literature review, and separate section is devoted to the EU policy regarding SMEs and public procurement market competition. Methodology and data are described in section three and results presented in section four. The last section concludes with discussion of main findings and policy recommendations.

Literature review

Over 99 percent of the total number of enterprises in the EU are SMEs. These enterprises create 67 percent of jobs and deliver 58 percent of the gross value added generated by private economy in the EU (European Commission, 2014b), which clearly indicates the substantial economic role of SMEs. Nevertheless, the number of authors claims that SMEs participation in public procurement is very weak (Loader, 2013; Vincze et al., 2010). Data revealing the actual involvement of SMEs in public procurement are quite limited and no comparative and reliable evidence on SMEs in Croatia and BiH participating in public procurement is available. For illustration European Commission (2010b) data show that on average in EU27, SMEs secured 38 percent of the value of public contracts and 61 percent of number of successful bidders.[110]

The position of SMEs at the public procurement market in post-transition countries is not clear-cut. Scattered national studies suggest there are discouraging barriers for SMEs to access public contracts (see for example Mitran (2011) for Romania, or Yakovlev and Demidova (2012) for Russia). New EU member states and ex-transition countries seem to stand worse when compared to old EU member states in terms of SMEs participation at public procurement market. On the other hand, Vincze et al. (2010) evaluation of SMEs' access to public procurement market in different EU countries showed that SMEs have stronger position in public procurement in smaller countries.

In this context our study of SMEs and public procurement in Croatia and BiH could be influenced by the recent economic crisis as well. The two observed countries went through the slow post-war recovery and were severly hit by the 2008 crisis that plunged national economies into the prolonged economic recession. In times of crisis, some scholars and practitioners advise public investment to boost recovery. In Croatia and BiH government money and public sector are main generators of economic activity which consequently makes public procurement market even more appealing for SMEs; however, crisis in turn might squeeze available resources of SMEs to compete. Although studies have suggested that SMEs were more resistant than large enterprises to the impact of the crisis, they also stress that they are recovering more slowly (European Commission, 2014b) thus affecting the competition at the public procurement market where SMSs oftenly act as subcontractors.

Contemporary public procurement practices encorporate three, oftenly competitive strands of public procurement: commercial, regulatory and social strand (Erridge and McIlroy, 2002), and

[110] Available data reflect only to successful bidders, but there is no data about actual attempts of SMEs to participate in public procurement process (both sucessfully and unsucessfully).

policy makers seek to find the optimal combination between them. EU policies regarding SMEs and public procurement allow social consideration in contracting if such decisions comply with fundamental single market priciples and freedoms (Kidalov, 2011). Studies of scholarly research and practitioners showed there is a strong, two-way relation between public procurement and competition. The lack of free and fair competition among private and public agents both at the supply and demand side, seriously threaten the level of competitiveness at public procurement market. Undesired level of competition could be result of regulatory framework for public procurement, market characteristics, collusive behavior of bidders or other factors (UNCTAD, 2012). Free and fair competition might be limited by a set of factors, such as discriminatory regulations, preferential treatment in designing tender documentations and/or procedures applied, and all kinds of entry barriers. One obstacle for fair competition frequently observed in post-transition countries is corruption (Ateljević and Budak, 2010; Grødeland and Aasland, 2011). In wider context it refers as well to conflict of interest, cartel deals, trading information and other irregularities in the tender and contracting procedures (OECD, 2012). Safeguarding and enhancing competitiveness by opening public procurement markets to all potential participants (along with applying money for value criterion) contributes to rational usage of resources and increases efficiency of the public sector as a whole.

The literature observes factors influencing SMEs' access to participate in the public procurement tenders from different perspective, but several factors influencing the level of their participation are commonly recognized. The large size of the contract is recognized to stand as the most important obstacle for SMEs to access the public procurement market (European Commission, 2014a; OECD/The European Commission/ETF, 2014; Loader, 2005). SMEs are less involved in above-threshold contracts. Second, the share of contracts awarded to SMEs depends on the type of procurer and is larger in local authorities tendering (Vincze et al., 2010; European Commission, 2014a). Third factor is tender procedure which has an impact on SMEs access to public contracts. SMEs participation is larger in open procedure or restricted procedure than in negotiated procedure (European Commission, 2014a). Furthermore, lack of time, financial and human resources are shown to be significant barriers for SMEs (Loader, 2013).

Studies on how successful the companies are in public tenders found company size as the relevant factor. In the public procurement processes middle-sized companies have proven to be more successful that micro-sized companies (European Commisssion, 2010b). On average SMEs in the EU have been performing well considering they secured 58 percent of public contracts in the period between 2006 and 2008. However, since the term includes various types of enterprises, it is necessary to analyze each type separately. Medium size enterprises, making up between 15 percent and 19 percent public procurement suppliers performed well. Also, there are almost no differences between medium and large companies when it comes to securing public procurement contracts. On the other hand, small and micro enterprises are lagging behind making up 10 percent and 5 percent of public procurement contracts, respectively (Vincze et al., 2010).

Public procurement is seen as an important mechanism to boost national economic activity. The share of public procurement in GDP was 12 percent in 2013 in Croatia (Directorate for the Public Procurement System, 2014) and 13 percent in BiH in 2012 (Balkan Tender Watch et al., 2015). Therefore policy makers worldwide use public procurement to conduct economic policy measures, and the EU takes the lead in common market public procurement regulations and policies. For this purpose EU standards and principles of public procurement have been agreed whereas special attention has been devoted to include small and medium companies. EU regulatory framework defines national public procurement regulations and delineates behavior of agents in the EU member states or acceding countries. It means the EU directives apply in Croatia as a new EU member state and impose rules for the future development of public procurement system in BiH.

EU directives and SMEs in the public procurement market

The importance of public procurement is recognized in the EU strategic documents such as Europe 2020 Strategy for smart, sustainable and inclusive growth, and the EU legislative acts explicitly says that public procurement is one of the instruments based on market principles, used to achieve smart, sustainable and inclusive growth that enables the most efficient usage of public resources (European Commisssion, 2010a). Considering the performance of SMEs, and referring to the European best practice codex to facilitate access to SMEs to the public procurement contracts (European Commission, 2008), the EU upgraded the existing regulations in order to enable these enterprises to integrate more easily into the public procurement market. In the course of 2014 the new EU legislation relevant to public procurement has been adopted[111] (for review of the previous EU public procurement regulation, see Bovis, 2012). The main goal of the new legislation is to improve competitiveness and reduce discrimination practices in general. The new framework will support the already ongoing initiatives like JEREMIE - Joint European Resources for Micro to Medium Enterprises that aim to improve the overall position of small and micro companies.

Prior to the implementation of the new directives, awarding of contracts was regulated by the Directive 2004/18/EZ. Ramsey (2006) argues that EU public procurement directives failed to open up the public contracts to competition and therefore did not enhance efficiency and market liberalization as expected. There are a lot of legal insecurities and entry barriers due to the lack of clear rules for awarding contracts. Such a legal environment elicits a lot of missed opportunities for SMEs. Since the rules in the old directive were open to interpretation, developing a new framework was necessary for raising the efficacy of public procurement. This has been achieved by replacing the old framework with the Directive 2014/24/EU.

Some of the problems regarding SMEs and public procurement calling for immediate actions were previously noted in the academic literature as well. Carpineti et al. (2006) opted for facilitating entry of SMEs to public procurement market by splitting contracts into lots. Equally, European Commission in new directive recommends to public procurers splitting large contracts into several smaller lots thus enabling SMEs to take part of the public procurement market pie. Splitting public procurement is expected to keep market competition alive and to lower entry barriers to SMEs. Special instructions how to implement these recommendations in practice are given in order to maintain fairness and non-discriminatory principles of public procurement[112].

One of the existing barriers for SMEs to participate in public procurement are too complex requirements for SMEs to fulfil, disproportionate to their economic and financial capacities. The new directive therefore envisages three basic criteria to be fulfilled in terms of professional, economic and financial, and technical capacities that have to be proportional to the volume of the public contract. Availability of contracts suitable to business capabilities of SMEs is addressed by EU directives and the mostly applied practices are seizing down the contract value (Kidalov, 2011).

Furthermore, in the EU there is a tendency to collaborate with large enterprises in order to utilize the economies of scale. For that reason it is necessary to monitor the centralization of public procurement purchases which in turn will ensure that SMEs have a representative share in securing public contracts.

[111] Directive 2014/23/EU for concessions, Directive 2014/24/EU for public procurement in general, and Directive 2014/25/EU for public procurement in the water, energy, transportation sectors.
[112] For EU public procurement principles, see more in Aviani, 2007.

Additional entry barriers in the EU are administrative burden in public procurement procedures, in terms of mandatory submission of numerous documents, validation forms, certificates and licenses. The new European unique procurement documentation system (e-Certis) would make the procedure simpler both for procurers and for suppliers.

Substantial changes in the Directive 2014/24/EU make subcontracting easier and more transparent, and the sub-contracted payment could be effectuated directly from the procurer. This makes SMEs engaged as subcontractors timely paid and lowers their operational costs and risk.

Technical specifications should not stand as unjustified barriers for market competition, and public procurers should use all available instruments to enhance competition at their tenders. The novelty in the Directive is the new definition of the awarding criteria that favors economically best offer instead of (widespread and easier to manage) lowest-price criterion.

Enhancing competitiveness of SMEs participating at public procurement markets by e.g. eliminating entry barriers stands as a primary EU policy goal. What obstacles exist and what policy responses apply in that domain in two post-transition sample countries, Croatia and BiH is assessed in the analysis that follows. First we describe methodology and data used.

Methodology and data

The empirical analysis is performed on survey data of Croatian and BiH companies. The Croatian part of the study uses data on Croatian companies collected in a specially designed cross-sectional survey conducted in April 2013. The target population includes active businesses of all sizes. The stratified sampling procedure is applied with company size, region and business sector as control variables. There were three categories for company size (small, medium, large), six categories for region (Zagreb region, Northwest Croatia, Central and Mountainous Croatia, Slavonia, Dalmatia, Istria and Croatian Littoral) and 15 categories for business sector according to the NACE Rev. 2 classification, where sectors omitted from the sample were sectors considered not participating in public tenders. The total net sample size is 300 Croatian companies, where the share of SMEs is 90 percent. The sampling procedure combined stratified sampling and quota sampling, where the stratification variable is participation/non-participation in public procurement tenders. Namely, the sampling was conducted by first randomly selecting 200 companies and then filling the rest of the sample with 100 companies that had participated in public procurement tenders. The survey was administrated through telephone interviews (for details on Croatian survey see Budak and Rajh, 2014).

In BiH, two surveys have been conducted among representatives of business sector. The first large telephone survey in 2014 was conducted at the net sample of 2500 companies of all sizes and operating in all economic sectors over the entire BiH territory. The purpose of this survey was to identify the sample of companies with public procurement experience, i.e. the share of companies which have participated in public tenders in the total business population. The sub-sample of 511 companies with public procurement experience was surveyed in detail by face to face interviews conducted in spring 2014 (for details on BiH survey, see Voloder, 2015b). The data of both surveys conducted in BiH are used in different phases of our analysis.

In the first phase, preliminary findings of large surveys on the entire populations in Croatia and BiH have been qualitatively assessed and compared (results presented in Table 2). The core analysis performed in the second phase refers to SMEs only. For that purpose, only SMEs in terms of number of employees were extracted in the survey databases: for BiH we used data from face to face interviews with managers form companies with up to 249 employees, and for Croatia, large companies were removed from the survey database as well. In that way, of the original large

survey databases, only small and medium enterprises in both countries were extracted to perform the detailed analysis, totalling 725 companies. The large sample of SMEs surveyed assures the reliability of the analysis. Summary statistics on sampled SMEs is presented in Table 1.

Table 1. Sample characteristics, n=725

Characteristics	%
Size (number of employees)	
Micro (1-9)	34.0
Small (10-49)	44.2
Medium (50-249)	21.8
Country	
Bosnia and Herzegovina	65.2
Croatia	34.8

As far as it considers the questionnaire items used in the analysis, first all questions and answers from both national surveys were explored and described (results presented in Table 2). For the next phase of the detailed analysis, eight questions that tackle different public procurement issues were selected from larger questionnaires. Questions were selected based on their content and on their availability on both country questionnaires.[113] Initial data format for all questions were recoded in order to prepare them for comparative analysis. Chi-square tests were employed to test differences between BiH and Croatia.

Results and discussion

Two national public procurement systems were assessed from the point of view of participants who provided insiders' authentic evidence on the characteristics of the system. Although it considers two country surveys that are not identically matching and therefore not directly comparable, we employed qualitative narrative analysis of main features of two country public procurement systems. It helped us to identify main issues in both of them regarding the competition and entry barriers. Comparison was made in seven main areas of public procurement. Along the public procurement process, we examined the issues in tender phase (application criteria for companies to participate and quality of tender information provided, technical specifications and procedures); selection of suppliers in terms of awarding criteria applied and suppliers' deals; and post-tender stage referring to contracting practice. Special sections refer to appeals and cost assessment. Corruption risk and perceived trust in the public procurement system were compared as well. Summary of results are presented in Table 2.

In both countries, companies evaluate tender information prompt and available and technical specifications clear (although in BiH somewhat restrictive). The main variations in responses appear in tender qualification criteria applied (in Croatia they are considerd clear and non-discriminatory, in BiH ambiguously defined and subjective) and procedures (considered transparent in Croatia and frequently misused in BiH). The major differences are noted in corruption and trust in the system. In BiH perceptions of corruption in public corruption is very high, while in Croatia it is not the case. In BiH over half of the respondents expressed distrust in the system, and in Croatia that was the case of one in ten respondents. Although companies in both countries observed making deals in the supplier selection process it seems at the first sight that EU principles of fair and non-discriminatory procurement are better applied in Croatia than in BiH.

[113] Questionnaires are available upon request.

In Croatia the situation seems to be different from the point of view of principal supplier and his subcontractors. Of Croatian companies that had experience in public procurement, more than one third participated as a sub-contractor. This indicates opening up to SMEs already aking place in Croatia. Main entry barriers identified for Croatian companies in general was the lack of capacities and resources. One part of companies surveyed had no business interest to participate and some were reluctant to participate because of distrust in the system, corruption, informal payments and other unfair deals in (sub)contracting. It is interesting to note that companies in Croatia evaluated the public procurement procedures better than one would expect and much better than companies in BiH. Croatian respondents mainly do not agree that informal payments are necessary to get the public contract, and find the system well designed and pretty effective in seizing the ever existing corruption risk. The strenghts of the Croatian system are seen in high transparency, well prepared and clear tender documentation, and procurement is well managed by competent staff. Croatian companies see public procurement practices in other EU countries and at the EU level better and have consequently high expectations of EU standards to become fully implemented in Croatia as well. It was for respondents at the time of survey early to estimate the benefit of the EU membership since Croatia is the EU new member state since July 1st, 2013. The empirical anylysis of the system at first sight indicated that SMEs in Croatia participate at the significant extent at the national public procurement market and that the development of SME sector is viable through public investment. The main entry barriers to enhance competition at the public procurement market, and to build the competitiveness of SMEs to participate at tenders are limited human and other resourses of the companies, in particular when it considers direct contracting for large business deals. The entry barriers and problems for BiH are different. First of all, the EU public procurement standards and best practices are not fulfilled, in particular when it considers non-discriminatory and fair practices applied to all participants. The lack of transparency and high corruption risk, poorly defined qualification and awarding criteria, cartel deals and conflict of interest jeopardize the efficency and competitiveness at the BiH national public procurement market. Over a half of the companies see corruption as “a grease in the wheels”; companies gain the competitive advantage by paying bribes, using political connections and making other unfair deals to get the public contract. The obstacles directly sezing competition at the public procurement market in BiH (Voloder, 2015a) are intentional misuse od the system in terms of cartel arrangements, deals between suppliers and public procurers in all phases of public tenders, restrictive terms of participating at tenders (e.g. high costs), lack of competences at the public procurer side. Public procurers lack resources and knowledge for complex tenders and contracts, and therefore prefere negotiation procedures directly with supplier(s) who have more expertize in the field. In line with this opinion, it is worth mentioning the general consensus among Croatian and BiH companies that policy makers should promote the criterion of economically best offer instead of lowest price criterion that is easier to apply.

Based on these findings we proceed with the comparative analysis with focus to the SMEs only.

Comparison	BiH	Croatia
Questionnaire objective: subject of research	Candidate selection criteria, scoring of offers. Technical specifications, procedure types, tender documentation price, legal protection of suppliers, contract implementation, corruption perception, trust in public procurement system: three stages of procurement: pre-tender, tender, post-tender - contract implementation.	Attitudes and experiences of business sector – suppliers about public procurement procedures, regulations, compliance with main principles of public procurement, achieved European standards and corruption risk levels in public procurement.
Respondents	2500 companies general sample, 511 companies participating in public procurement.	300 companies.
Tender	Contracting authority sets up tender conditions in agreement with interest groups and/or with preferential suppliers.	Restricted internal human and material resources of companies available for tender participation.
• Informations	Prompt and available.	Prompt and available. Tender deadlines too short for 10% of respondents.
• Qualification criteria	Subjectively appointed, often ambiguously defined and subject to different interpretations; restrictive.	Clear and nondiscriminatory. Companies prefer to be involved in public procurement as direct contractors.
• Technical specifications	Clear, but restrictive.	Clear and well prepared.
• Procedure	Splitting of procurement into smaller amounts is a common occurrence, although forbiden by law. Urgency and other (un)justifiable reasons are to often misused to account for the choice of competitive dialog procedure instead of open procedure.	Transparent.
Supplier selection	Ambiguous assessment criteria. Prohibited deals among suppliers. Conflict of interest among participants in public procurement. However, half of participants state that the most favourable offer is being chosen in a fair manner.	Deals among suppliers present in subcontracting: subcontractors arrange collaborations with the main supplier in advance.
Post-tender stage	Subsequent changes in contract conditions is a common occurrence. More than half of all contracts are subject to supervision and revision.	Contractors are least satisfied with the achieved price, but are very satisfied with contract deadlines.
Appeals procedure	Appeals are resolved promptly, transparently and fairly. Distrust in legal system in BiH stated as main reason among part of unsatisfied participants who did not appeal.	A share of unsatisfied did not appeal so as to not spend additional resources on procedures, and part of them do not believe appealing would change anything.
Costs	Generally, costs ordained by law are reduced.	Public procurement increases business costs for contractors.
• Participation in tender	Purchase of tender documentation and submitting proof not regarded as excessive expense by half of participants.	-
• Appeals	Fee amount for initiation of appeal procedure not among main reasons why companies do not appeal tender outcomes.	Companies do not appeal tender outcomes because they do not want to spend additional resources.
Corruption	Perception of corruption in public procurement is very high, 88% of respondents. Corruption encounters in public procurement 20% of companies. Half of respondents believe they were not awarded a contract because of corruption.	High corruption perception in public procurement not confirmed by questionnaire (11% of respondents believe unformal payments to be necessary to receive a contract). Only 1% of respondents believe to not have been awarded a contract because of corruption.
Trust in the system	58% of companies do not trust the system.	10% of respondents demonstrate distrust in public procurement.

Table 2. Survey results: A comparison between BiH and Croatia - Summary

In the second phase of the analysis, eight areas of issues SMEs in Croatia and BiH are facing were identified. All issues are sorted by their estimated relevance for SMEs safeguarding competitiveness at the public procurement market (Table 3). Therefore, at the very top of the list is the degree of competition to which SMEs are exposed when applying to public tender. The reported (dis)satisfaction with the public contract price achieved stands as a barrier for a company future participation at tenders because of weak profit prospects. If as in most cases the contract price is publicly available the unfavourable deal might deter other companies to participate in public tenders. Short tender deadlines seize competition at the public procurement tenders because if deadlines are too short, it may prohibit SMEs to apply. The EU principles of fairness and non-discriminatory treatment are reflected in the issues of transparency of tenders, perceived conflict of interest in public procurement and respondents' trust in the public procurement system. The last but not the least and according to the results a very important issue in public procurement is the perceived corruption risk. However, the perceptions how public procurement is prone to corruption may not match the real corruption incidence. For issues SMEs are facing in public procurement, we examined differences between SMEs by country, and by size i.e. among micro, small and medium companies.

In order to test the differences between BiH and Croatia, the share of companies that agrees with various statements about public procurement issues were compared and tested with Chi-square tests (Table 3).

Table 3. Issues SMEs are facing in public procurement, n=725

Variable	BiH	Croatia	Chi-square test
Exposure to competition: Yes	12.6%	92.6%	Chi-square=337.54 p=0.000
Dissatisfaction with the achieved price: Yes	63.8%	52.4%	Chi-square=5.42 p=0.020
Satisfaction with tender deadlines: Yes	83.7%	88.6%	Chi-square=2.15 p=0.143
Transparency of tenders: Yes	84.7%	87.3%	Chi-square=0.82 p=0.365
Conflict of interest in public procurement: Yes	71.2%	40.8%	Chi-square=52.37 p=0.000
Trust in the system: Yes	47.5%	17.0%	Chi-square=63.24 p=0.000
Corruption risk in public procurement: Yes	90.8%	82.8%	Chi-square=9.75 p=0.002
Public contract awarded under influence of corruption: Yes	60.1%	28.0%	Chi-square=54.80 p=0.000

Our results indicate that there are significant differences between BiH and Croatia at $p<0.01$ level for the following variables: "exposure to competition", "conflict of interest in public procurement", "trust in the system" and "corruption risk in public procurement". Also, there are significant differences at $p<0.05$ level for variable "dissatisfaction with the achieved price". There are no statistically significant differences for variables indicating "satisfaction with tender deadlines" and "transparency of tenders". "Dissatisfaction with the achieved price" in public procurement tenders is higher in BiH than in Croatia (64% vs. 52%).

Larger share of companies from Croatia, when compared with those from BiH, agrees that they are exposed to competition in public procurement tenders in their respective country (93% vs. 13%). On the other hand, larger share of companies from BiH, when compared with those from Croatia, agrees that conflicts of interests exist in public procurement system of their respective

country (71% vs. 41%). Also, larger share of companies from BiH agrees that public contracts were awarded under the influence of corruption (60% vs. 28% in Croatia). Although there are statistically significant differences between BiH and Croatia in share of companies that agree that corruption risk exists in public procurement, the both percentages are very high (91% vs. 83%). For Croatia, intuitive assumption of SMEs suffering more from corruption is confirmed when compared to the low corruption perceptions of the overall sample (Table 2). Having in mind previous results, the results for variable "trust in the system" might be considered somewhat contradictory. Although it seems there are more corruption and conflict of interest in public procurement system is BiH (based on companies' answers), at the same time the trust in such system is much higher in BiH than in Croatia (48% vs. 17%).

Next we proceed with the analysis of differences among sizes of SMEs. Micro companies up to 10 employees might have resources, business interests, negotiation power, and other characteristics substantially different from middle-sized companies up to 249 employees. The intuition of different entry barriers and challenges in front of micro, small and medium-sized companies competing at public procurement market is tested by additional set of Chi-square tests (Table 4).

Table 4. Company size and issues SMEs are facing in public procurement, n=725

Variable	Micro	Small	Medium	Chi-square test
Exposure to competition: Yes	11.4%	37.6%	57.1%	Chi-square=89.29 p=0.000
Dissatisfaction with the achieved price: Yes	63.7%	61.3%	56.8%	Chi-square=1.57 p=0.455
Satisfaction with tender deadlines: Yes	81.9%	84.5%	91.3%	Chi-square=5.91 p=0.052
Transparency of tenders: Yes	80.9%	87.0%	89.9%	Chi-square=7.32 p=0.026
Conflict of interest in public procurement: Yes	67.0%	62.3%	55.4%	Chi-square=4.83 p=0.089
Trust in the system: Yes	40.2%	39.4%	30.6%	Chi-square=4.44 p=0.109
Corruption risk in public procurement: Yes	91.0%	88.1%	83.5%	Chi-square=5.22 p=0.074
Public contract awarded under influence of corruption: Yes	58.6%	49.7%	37.7%	Chi-square=14.19 p=0.001

We found statistically significant differences between companies of different sizes at $p<0.01$ level for the variables "exposure to competition" and "public contract awarded under influence of corruption", and at the $p<0.05$ level for "transparency of tender". Differences at $p<0.1$ level were observed for "satisfaction with tender deadlines", "conflict of interest in public procurement" and "corruption risk in public procurement". There are no statistically significant differences for variables "dissatisfaction with the achieved price" and "trust in the system".

Largest differences between micro, small and medium companies are observed for variable "exposure to competition". More than half of all surveyed medium sized companies agree that they are exposed to competition in public procurement tenders, while only one in ten micro company thinks the same (57% vs. 11%). Larger share of micro sized companies when compared with small and medium sized companies agrees with the statement that "public contracts are awarded under influence of corruption" (59% vs 50% and 38%). Small and medium sized companies to a larger extent expressed their concern about transparency of public procurement tenders, when compared with micro sized companies (90% and 87% vs. 81%). On the other hand micro and small sized

companies are less satisfied with the tender deadlines when compared with medium sized companies (82% and 85% vs. 91%). Different pattern could be observed for variable “corruption risk in public procurement”, i.e. micro and small sized companies to a larger extent agrees with the statement that there is a “corruption risk in public procurement”, when compared with medium sized companies (91% and 88% vs. 84%).

Conclusion and discussion

Comparative assessment of public procurement market entry barriers in Croatia and BiH as of opinion of participating companies yielded several results that are worth further discussion. Our intuition was that SMEs in Croatia and BiH are too big to fail meaning that these companies do not experience major obstacles when approaching public procurement market. In Croatia, half of the participants at public procurement tenders surveyed were small companies with less than 50 employees. Companies of that size are important to Croatian economy because SMEs with up to 249 employees are relatively big firms in the context of small country of Croatia and the same applies for BiH.

For the overall sample of surveyed companies in both countries, the major differences in entry barriers are noted in corruption and low trust in the system. In BiH perceptions of corruption in public procurement is very high, while in Croatia it is not the case. Less conflicts of interest and less corruption in public contracting in Croatia when compared to BiH might be explained by higher awareness of the Croatian business sector of corruption risk that is present but well handled so public contracts are not awarded as much by means of corruption. Since the focus of this research is the position of SMEs in public procurement, we discuss this part of our analysis in details.

When it comes to the SMEs only, the main and huge difference is found in the level of competition to which SMEs are exposed. The competition at the public procurement market for SMEs in Croatia is much higher than in BiH. This might stem from the Croatian EU membership that facilitates access to the market and establishes tendering procedures and practices by opening up bidding processes to large number of businesses. Companies operating at the EU market should have gained more trust in the system, yet this was not the case observed in the analysis. One of the explaining reasons might be that survey in Croatia was performed at the very beginning of the EU membership period. Another possible reason that remains to be further explored is that EU memebership *per se* does not change overnight the quality of public administration and the poor business perceptions of national public procurement system remain.

As it considers the relative position of micro, small and medium subgroups of SMEs, our findings suggest that as the firm grows, the exposure to competition is higher as well. Maybe micro companies are more engaged in small scale public contracts of for example local provisioning of specific goods and services that are not interesting to other companies to bid for. Possible local and small public contracting might explain as well the higher perceptions of corruption of micro firms in distinction to perceptions of small and medium sized companies. On the other hand micro firms have more trust in the public procurement system that should not prevent them to continue applying to public bids. Other related issues were not claimed by micro companies when compared to small and medium sized companies.

Compared to issues often present in the EU and academic literature as obstacles for SMEs to participate at public procurement market, SMEs in both observed countries do not experience barriers in terms of tender deadlines, transparency and level of contract price achieved. However, SMEs involved or potentially involved in public procurement are facing different obstacles when

compared to the EU average and we tried to provide some answers why. It means that Croatian and BiH policy makers should pay attention to the SMEs and public procurement.

Some authors argue that SMEs performance depends on national and regional legislation (Vincze et al., 2010). SMEs perform better on the local level since those tenders usually do not require large suppliers. Also they are less successful securing tenders launched by the utilities sector and central government bodies. This would imply that: (i) the quality of local institutions plays a significant role in the success of SMEs; (ii) central government institutions should take steps to facilitate SMEs involvement in the procurement market. Further, contracts of higher value are less obtainable for smaller and micro companies. This could be the reason why medium size enterprises perform better than smaller companies. In order to support smaller businesses governments should introduce a practice of breaking down tenders. In this way some unattainable tenders would become feasible opportunities and improve the position of micro and small companies on the public procurement market. Another solution would be to introduce a joint fulfilment or in other words, allowing a few smaller companies to work together on a high value tender.

One of the main goals of the EU new legislation is to ensure a better position for SMEs in the public procurement market. We argue that there are no blank policies for post-transition but different for countries regarding EU members vs. candidate countries. Policy recommendations might be different for micro, small and medium sized companies in post transition.

Croatia had problem with corruption before the EU accession process was intensified, so it is intuitive to conclude that in the advanced EU accessing stage BiH will overcome its current problems i.e. resolve similar issues that Croatia was facing in the past. One could assume that BiH will attain the higher level of transparency, more competent public procurers, less corruption and above all, higher level of competition at some point in the future along its EU accession path. It is however worth noting that despite introducing EU standards in public procurement (at least in terms of regulatory framework) Croatian companies still experience irregularities and lack confidence in the national public procurement system. Here our views are in line with Preuss (2009) pointing out the importance of supporting policies, organizational culture and strategies in implementing efficient public procurement practices. Instead of formal blank legislative prescription of EU regulations that may not be fully implemented, there should be customized policies for every country, local government or type of public investment. However, high standards established though EU practices should stand as a higher rule in terms of rational allocation of public resources.

Official hard data on SMEs involvement in public procurement for Croatia and BiH are missing, and this is valid for other post-transition nations as well. In this context, surveying opinion of participating actors in public procurement is seen as valuable source of information. By acknowledging limitations of this research we set lines of the future investigations. This work fills the gap in the scarce knowledge on SMEs and public procurement in Western Balkans region and its findings and policy implications could be useful for other post-transition economies.

Acknowledgements

The authors would like to thank Transparency International Croatia for supporting the survey fieldwork conducted by the Promocija Plus agency which supplied us with the original database for Croatia. The survey tool development and interpretation of the results remain the authors' responsibility only. We would like to thank Analitika Sarajevo for supplying us with the original database for BiH survey. Assistance from Jelena Vitić and Tea Paulović is highly appreciated.

References

1. Ateljević, J., and Budak, J. (2010). Corruption and public procurement: example from Croatia. *Journal of Balkan and Near Eastern Studies*. 12(4), pp. 375-397.

2. Aviani, D. (2007). Temeljna opća načela u pravu europske zajednice relevantna za tržišno djelovanje javnopravnih tijela. *Zbornik radova Veleučilišta u Šibeniku*. 1(1-2), pp. 38-49.

3. Balkan Tender Watch. (2015). Public procurement in Bosnia and Herzegovina, Montenegro, Macedonia and Serbia. Comparative analysis of legal and institutional framework. http://balkantenderwatch.eu/btw/uploaded/Comparative/Comparative%20analysis%20of%20legal%20and%20instiutional%20framework.pdf (accessed 03.08.2015.)

4. Bovis, C.H. (2012). Public procurement in the EU: Jurisprudence and conceptual directions. *Common Market Law Review*. 49(1), pp. 247–289.

5. Budak, J., and Rajh, E. (2014). *The Public Procurement System: A Business Sector Perspective*. The Institute of Economics, Zagreb. Zagreb. Croatia.

6. Caldwell, N., Walker, H., Harland, C., Knight, L., Zheng, J., and Wakeley, T. (2005). Promoting competitive markets: the role of public procurement. *Journal of Purchasing and Supply Management*. 11(5-6), pp. 242-251.

7. Carpineti, L., Piga, G., and Zanza, M. (2006). The variety of procurement practice: evidence from public procurement. In: *Handbook of Procurement*. Eds: Dimitri, N., Piga, G., and Spagnolo, G. Cambridge University Press. Cambridge. United Kingdom.

8. European Parliament. (2014). Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC. http://ec.europa.eu/growth/single-market/public-procurement/modernising-rules/reform-proposals/index_en.htm (accessed 04.08.2015.)

9. ERAPRISM. (2010). Public procurement for innovation in small european countries. http://ec.europa.eu/environment/gpp/pdf/Public%20Procurement%20for%20Innovation%20in%20Small%20European%20Countries.pdf (accessed 03.08.2015.)

10. European Commission. (2008). European code of best practices facilitating access by SMEs to public procurement contracts. http://ec.europa.eu/internal_market/publicprocurement/docs/sme_code_of_best_practices_en.pdf (accessed 03.08.2015.)

11. European Commission. (2013). A recovery on the horizon?, Annual report on European SMEs 2012/2013. http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2013/annual-report-smes-2013_en.pdf (accessed 03.08.2015.)

12. European Commission. (2015). Public procurement. http://ec.europa.eu/trade/policy/accessing-markets/public-procurement (accessed 03.08.2015.)

13. European Commission. (2010a). Europe 2020: A strategy for smart, sustainable and inclusive growth. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF (accessed 04.08.2015.)

14. European Commission. (2010b). Evaluation of SMEs' access to public procurement markets in the EU, Final report. http://ec.europa.eu/enterprise/policies/sme/business-environment/public-procurement/ (accessed 03.08.2015.)

15. European Commission. (2014a). SMEs' Access to Public Procurement Markets and Aggregation of Demand in the EU. http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/smes-access-and-aggregation-of-demand_en.pdf (accessed 03.08.2015.)

16. European Commission. (2014b). Annual public procurement implementation review, 2013. http://ec.europa.eu/internal_market/publicprocurement/docs/implementation/20140820-staff-working-document_en.pdf (accessed 03.08.2015.)

17. Flynn, A., McKevitt, D., and Davis, P. (2013). The impact of size on small and medium-sized enterprise public sector tendering. *International Small Business Journal*. Prepublished online.

18. Grødeland, A.B., and Aasland, A. (2011). Fighting corruption in public procurement in post-communist states: obstacles and solutions. *Communist and Post-Communist Studies*. 44(1), pp. 17-32.

19. Kidalov, M.V. (2011). Small business contracting in the United States and Europe: a comparative assessment. *Public Contract Law Journal*. 40(2), pp. 443-510.

20. Loader, K.E. (2005). Supporting SMEs through government purchasing activity. *The International Journal of Enterpreneurship and Innovation*. 6(1), pp. 17-26.

21. Loader, K.E. (2013). Is public procurement a successful small business support policy? A review of the evidence. *Environment and Planning C: Government and Policy*. 31(1), pp. 39-55.

22. McKevitt, D., and Davis, P. (2013). Microenterprises: how they interact with public procurement processes. *International Journal of Public Sector Management*. 26(6), pp. 469–480.

23. Directorate for the Public Procurement System. (2014). Statističko izvješće o javnoj nabavi u Republici Hrvatskoj za 2013. godinu. Ministry of Economy, Labour and Entrepreneurship. Zagreb. Croatia.

24. Mitran, D. (2013). Improving access of SMEs to the public procurement markets. *Internal Auditing and Risk Management*. 8(2), pp. 244-251.

25. OECD. (2007). Central public procurement structures and capacities in member states of the European Union. SIGMA Papers No.40. OECD Publishing. Paris. France. http://www.oecd-ilibrary.org/governance/central-public-procurement-structures-and-capacity-in-member-states-of-the-european-union_5kml60qdqq0n-en;jsessionid=atm0rjfnpp1e.x-oecd-live-02 (accessed: 04.08.2015.)

26. OECD. (2012). Reccommendation of the Council of fighting bid rigging in public procurement. OECD Publishing. Paris. France. http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=284&InstrumentPID=299&Lang=en&Book=False (accessed: 04.08.2015.)

27. OECD, European Commission, and ETF. (2014). Implementation of the "Small Business Act" for Europe in the Mediterranean Middle East and North Africa 2014. OECD Publishing. Paris. France

28. Preuss, L. (2009). Addressing sustainable development through public procurement: the case of local government. *Supply Chain Management: An International Journal*. 14(3), pp. 213–223.

29. Ramsey, L.E. (2006). The new public procurement directives: a partial solution to the problems of procurement compliance. *European Public Law*. 12(2), pp. 275–294.

30. Vincze, M.P., Mathis, J., Dumitrescu, A., Erbilgic, A., Coscia, E., and Megliola, M. (2010). Evaluation of SMEs' access to public procurement markets in the EU, DG Enterprise and Industry, Final report. European Commission. Brusseles. Belgium. http://ec.europa.eu/enterprise/policies/sme/business-environment/files/smes_access_to_public_procurement_final_report_2010_en.pdf (accessed: 03.08.2015.)

31. UNCTAD. (2012). Competition policy and public procurement. United Nations Conference on Trade and Development. http://unctad.org/meetings/en/SessionalDocuments/ciclpd14_en.pdf (accessed 03.08.2015.)

32. Voloder, N. (2015a). Ključni problemi u javnim nabavkama u BiH: iskustva privrednih subjekata. Analitika Policy Brief 15. Analitika – Center for Social Research. Sarajevo. Bosnia and Herzegovina.

33. Voloder, N. (2015b). Mapiranje ključnih prepreka za ravnopravno učešće privrednih subjekata u javnim nabavkama u Bosni i Hercegovini. Analitika – Center for Social Research. Sarajevo. Bosnia and Herzegovina.

34. Yakovlev, A., and Demidova, O. (2012). Access of firms to public procurement in Russia in the 2000s: before and after radical reform of regulation. *International Journal of Economic Policy in Emerging Economies*. 5(2), pp. 140-157.

SO CLOSE BUT STILL SO FAR AWAY. HUNGARIAN AND AUSTRIAN SMES EXPLORED

Előd, KOVÁCS[114]

Abstract

Hungary and Austria are not only land border countries, but do have common historical and cultural background. The regional coherence of the neighboring EU-members is stronger than ever, due to the fact that Austria has waived the restrictions and has entirely opened its labor market in 2011. Based on the regulations related to the free movement of people, goods and services within the EU the relatively skilled and highly motivated Hungarian workforce finds its way to the much better paid Austrian jobs, just like employees of other CEE-countries. In this respect do not only private persons choose Austria as a target country, but also Hungarian companies start offering their products and services across the border.

My paper analyzes both the Hungarian and the Austrian SME sector based on the EC's SBA fact sheets, focusing on their similarities and differences, while it clearly shows their importance and contribution to the national economy. The facts and figures prove that the SME sector in Hungary is more or less still suffering from the effects of the 2008 economic crisis, and that the recovery needs much more time than in case of other EU member states. The employment figures of the SME sector and the falling number of the SMEs themselves shows that the Hungarian government needs to pay more attention to the sector in order to boost employment and productivity. The figures also clearly show that the large enterprises have much more successful fought against the crisis, as the value added of the SMEs has decreased compared to 2008, while the large enterprises were able to stay on the same level.

Despite the economic crisis it seems that the Austrian SMEs were barely affected. They not only managed to stay on the same level as before the 2008 outbreak, but even managed to create almost 40 thousand additional jobs increasing the employment of the sector by more than 2%.

Key words: *SMEs, employment, sectors*

[114] PhD Student, Széchenyi István University Hungary, Doctoral School of Regional- and Economic Sciences, HU-9026 Győr, Egyetem tér 1.; E-mail: elodmail@gmail.com

4. Small and medium-sized enterprises in the EU

Small and medium-sized enterprises (SMEs) are the most important economic actors within the European Union, as according to the European Commission (EC) they represent 99% of all businesses in the EU, and therefore must be considered together with entrepreneurship as the key to ensuring economic growth, job creation and social integration in the EU (EC, 2015a). Small and medium-sized enterprises are defined by the Extract of Article 2 of the Annex of Recommendation 2003/361/EC (EC, 2003). Based on the recommendation the category of SMEs is built up by enterprises, which employ less than 250 persons, their annual turnover does not exceed 50 million EUR, and/or their annual balance sheet total does not exceed 43 million EUR. Depending on the number of employees and either the turnover or the balance sheet requirements SMEs are categorized into three groups. A microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million. A small enterprise is defined as an enterprise which employs less than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million. The third group - medium sized enterprises - is clearly defined by the highest limit.

According to the latest handout of the EC, nine out of every 10 enterprises is an SME, while they generate 2 out of every 3 jobs, and are considered as the engine of the European economy (EC, 2015b). Concerning the value added, - the net contribution of the company to the economy - we can see that in 2013 compared to the pre-crisis levels in 2008, 1.2% growth can be observed, which means a 44 billion EUR gain, which was reached by 350 thousand SMEs more than in 2008, which is a growth of 1.7%. Employment figures show a 2.1% gain, meaning that in 2013 1.9 million people more were employed by SMEs in the EU, than in 2008 (EC, 2014c), but still most EU countries struggle with post world economic crisis effects. Figure 1 shows the ratio of value added of the SMEs within the EU 2013 to 2008 and the ranking according to the ratio of employment.

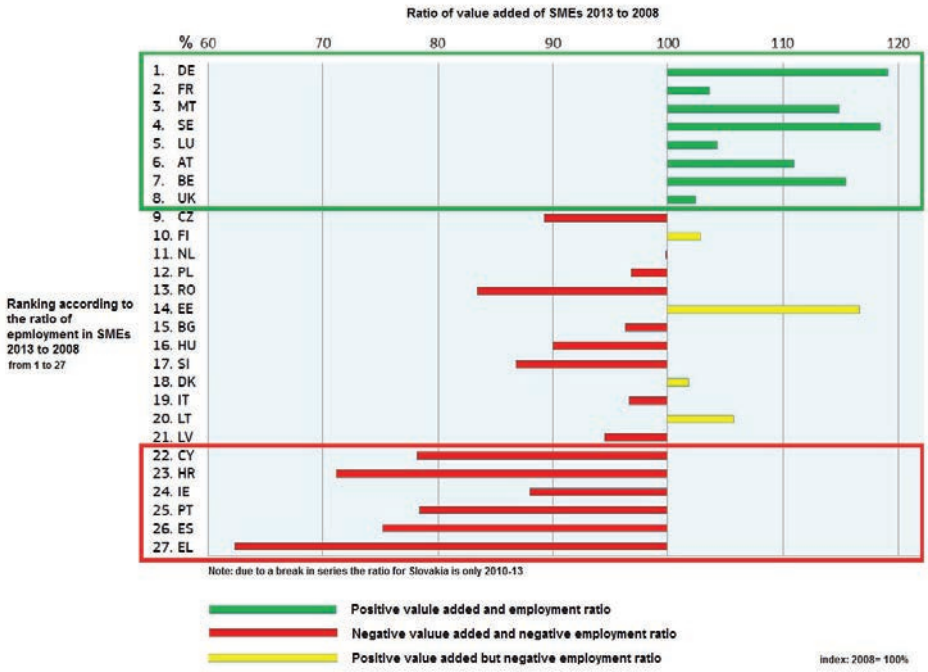


Figure 1

Ratio of value added and employment of the SMEs in the EU from 2013 to 2008.

Source: European Commission, European SMEs according to Annual Report 2013/2014.

Within the EU in 2013 more than 21 million SMEs employed over 88.8 million people, while 99 out of 100 companies is an SME itself. SMEs play a key role on the fields of innovation and are considered to be extremely important for fostering competitiveness. Based on the EC findings (EC, 2014c), the three most pressing problems for the SMEs within the EU are finding customers

(22.4%), the access to finance (15.4%), regulations and the availability of skilled staff or experienced managers (both equally 14.2%). Concerning the recovery of the individual sectors we can see that trade, accommodation- food, business services and other sectors (which include all other non-financial business sectors) have already recovered, but the manufacturing and construction is still much behind their own 2008 performance (EC, 2014c). Some SME sectors have achieved relatively positive growth from 2008 to 2013 with business services, trade and other sectors posting positive value added growth (EC, 2014a). Figure 2 shows the change in percentage in three SME indicators from 2008 to 2013 in the EU28 in key sectors.

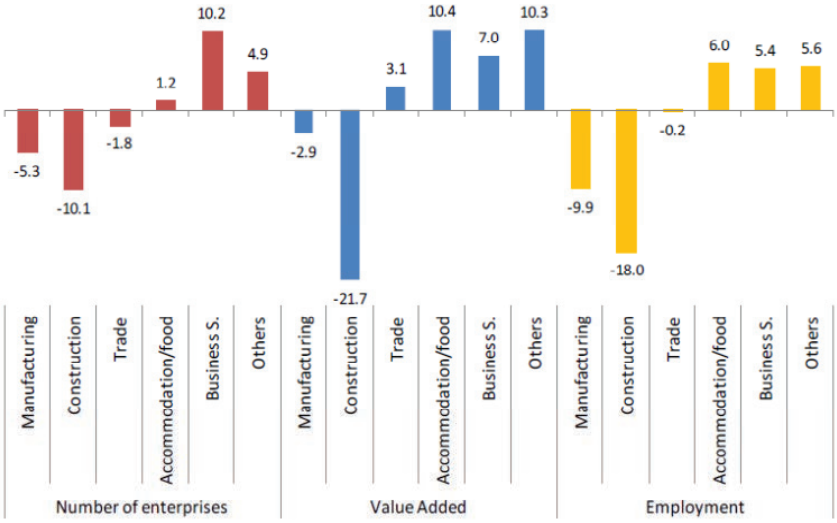


Figure 2
Change in percentage in three SME indicators from 2008 to 2013 in the EU in key sectors
Source: European Commission, Annual Report on European SMEs 2013/2014

As a contrast to the relatively well recovered sectors we can see that construction industry has achieved a cumulative decline in value added in the period investigated with an almost -22%, registering at the same time a decline in employment with 18%, while the number of enterprises in the sector went down by 10%. The manufacturing sector is also still facing problems with its recovery; its employment ratio is 10% below its 2008 level.

Key findings of the EC annual SME report in the EU28 in 2013, 21.6 million SMEs generated 3.666 trillion EUR in value added in the non-financial business sector, employing 88.8 million people. The generated value added is equivalent to 28% of the EU28 GDP. Concerning the number of enterprises per sector we can see that the non-financial sector is dominating. The value added in 2013 was just 1% above the 2008 level, and the employment is still 2.6% below it. The biggest losses were realized by the micro sized enterprises in total number and in the number of employees in the same period (EC, 2014a).

Concerning the combination of enterprises within the SME sector in 2013 in the EU28 we can see that 92.57% are micro-enterprises employing 38.629 thousand persons and generating 1.362 million Euros value added at factor costs. Small enterprises give 6.39% of all the SMEs, employing 27.353 thousand persons and generating 1.147 million Euros value added at factor costs. Medium size companies only have a 1% share in number within the SME sector, but do employ 22.860 thousand persons and generate 1.156 million Euros value added at factor costs. Table 1 shows the number, employment and value added figures of all EU28 enterprises in 2013 in detail (EC, 2014a).

Table 1. SMEs and large enterprises: number, value added, employment in the EU28 in 2013.

	Micro	Small	Medium	SMEs	Large	Total
Number of enterprises						
Number	19,969,338	1,378,374	223,648	21,571,360	43,517	21,614,908
%	92.4%	6.4%	1.0%	99.8%	0.2%	100%
Employment						
Number	38,629,012	27,353,660	22,860,792	88,843,464	44,053,576	132,897,040
%	29.1%	20.6%	17.2%	66.9%	33.1%	100%
Value added at factor costs						
Million Euros	1,362,336	1,147,885	1,156,558	3,666,779	2,643,795	6,310,557
%	21.6%	18.2%	18.3%	58.1%	41.9%	100%

Source: European Commission (2014a). A partial and fragile recovery. Annual report on European SMEs 2013/2014.

Due to the importance of SMEs in the EU, their permanent monitoring and support is a key issue. The Small Business Act for Europe - a policy framework - reflects the Commission's will to emphasize their role and give them all support needed to improve. The SBA factsheets are being produced on a yearly basis since 2008 for each member state along ten established principles (EC, 2012).

5. Austrian and Hungarian SMEs on their way to recovery

Concerning the recovery after the 2008 world economic crisis the SME annual report classifies the individual member states into five different groups based on their achievements till 2013. The five groups are from the best to the worst: front runners, solid performers, no change group, group of weak performers and very weak performers. On the basis of value added Austria belongs to the front runner group, in which in 2013 the value added generated by SMEs in the non-financial business sector exceeded by more than 10% that created in 2008. Hungary belongs to the very weak performers, where the value added was more than 10% less than in 2008, just like employment (EC, 2014a). Table 2 shows the changes in percent of the Austrian and Hungarian SMEs from 2012 to 2013 in the number, generated added value and employment in the non-financial business sector.

Table 2. Changes in % in the number of Austrian and Hungarian SMEs, their generated value added and employment in the non-finacncial business sector

Country	Enterprises (SMEs), % change 2012-2013	Value Added of SMEs, % change 2012-2013	Employment in SMEs, % change 2012-2013
AT			
HU			

Source: European Commission (2014a). A partial and fragile recovery. Annual report on European SMEs 2013/2014.

The direction, color and number of arrows clearly determine the status of the individual countries on each field analyzed. The green arrow showing upwards means that both the Austrian and the Hungarian SMEs have gained in number, although the growth rate is below 3%. The difference of the two countries can clearly be seen in the change of the generated value added and employment, as Austria can boast with a rise on each fields below 3%, whereas Hungary's red arrow going down revealing the growth rate in value added is lower than -0.05% and its growth rate of employment has barely changed.

Based on the figures and statistics presented in the annual report of SMEs 2013/2014 by the EC which conclude the data of Eurostat and the National Statistical Offices in respect of the degree of recovery of the SMEs in Austria and in Hungary after the 2008 world economic crisis, we can see a completely different state of the two countries in Table 3.

Table 3. State of the recovery of the SMEs in Austria and Hungary from 2008 to 2013

Country	Enterprises (SMEs), ratio 2013/2008	Value Added of SMEs, ratio 2013/2008	Employment in SMEs, ratio 2013/2008
AT			
HU			

Source: European Commission (2014a). A partial and fragile recovery. Annual report on European SMEs 2013/2014.

Austria is performing quite well, the value added of the national SMEs is more than 10% higher than in 2008, there are also more enterprises in the sector and they employ more people than in 2008. Hungary seems to be the opposite, as it performs weak in two fields and very weak in one. The number of SMEs and their employment figures is both worse than in 2008, the generated value added is more than 10% lower than in 2008 (EC, 2014a).

6. SMEs in Austria

According to the SBA Factsheet 2014, Austria's SME sector kept being stabile and has even grown after the outbreak of the world economic crisis in 2008. In 2013 more than 307 thousand companies were SMEs, which is 19 thousand more than in 2008, having created an additional 90 thousand jobs, while their generated value added grew by more than 17% (EC, 2015c). The SBA fact sheet covers Eurostat data of the 'business economy' including industry, construction, trade and services, but it excludes agriculture, forestry and fisheries, education and health. Table 4 shows the preliminary basic figures of Austrian SMEs in 2013.

Table 4. Basic preliminary figures of Austrian SMEs in 2013

	Number of enterprises			Number of employees			Value added		
	Austria		*EU-28*	Austria		*EU-28*	Austria		*EU-28*
	Number	Proportion	*Proportion*	Number	Proportion	*Proportion*	Billion €	Proportion	*Proportion*
Micro	269 497	87.4%	*92.4%*	670 768	25.1%	*29.1%*	31	18.5%	*21.6%*
Small	32 818	10.6%	*6.4%*	631 060	23.6%	*20.6%*	33	19.7%	*18.2%*
Medium-sized	5 015	1.6%	*1.0%*	505 728	18.9%	*17.2%*	39	22.9%	*18.3%*
SMEs	**307 330**	**99.7%**	***99.8%***	**1 807 556**	**67.7%**	***66.9%***	**103**	**61.2%**	***58.1%***
Large	1 047	0.3%	*0.2%*	861 863	32.3%	*33.1%*	65	38.8%	*41.9%*
Total	**308 377**	**100.0%**	***100.0%***	**2 669 419**	**100.0%**	***100.0%***	**168**	**100.0%**	***100.0%***

Source: European Commission (2015c). Enterprise and Industry. 2014 SBA Fact Sheet Austria.

According to the estimation in 2013 (EC, 2015c) there were 307.330 SMEs in Austria, which gives 99.7% of the total of all Austrian enterprises. They employed 1.807 thousand persons, which is 67.7% of all Austrian employees, and generated 103 billion EUR value added. Based on the findings of the fact sheet, the employment of the micro-enterprises is 4 percentage points lower than the EU average, which means that micro-enterprises are less important in relation with employment for Austria. Most Austrian SMEs are in the wholesale and retail trade sector (25%) generating 20%

of value added, just like manufacturing. A more detailed overview of the 2013 results of the Austrian SME sector and its development compared to 2008 can be seen in table 5.

Table 5. The 2013 status and the development compared to 2008 of the Austrian SMEs

AUSTRIAN SMEs	Number			Number of persons employed			Value added at factor cost		
	2008	2013	ratio (%)	2008	2013	ratio (%)	2008	2013	ratio (%)
Mining and quarrying	344	353	102,6	4 364	4 039	92,6	347	325	93,7
Manufacturing	25 615	24 339	95,0	333 548	320 973	96,2	19 017	20 958	110,2
Electricity, gas, steam and air condition supply	1 488	2 118	142,3	7 597	8 823	116,1	1 407	2 007	142,6
Water supply; sewerage, waste management and remediation activities	1 974	2 169	109,9	11 304	11 918	105,4	1 035	1 138	110,0
Construction	29 765	31 465	105,7	226 785	233 697	103,0	11 753	12 163	103,5
Wholesale and retail trade; repair of motor vehicles and motorcycle	75 156	75 380	100,3	413 240	420 827	101,8	19 678	21 865	111,1
Transportation and storage	14 069	14 134	100,5	108 451	107 349	99,0	6 008	6 207	103,3
Accommodation/ food services	44 898	44 680	99,5	244 421	268 062	109,7	6 325	6 920	109,4
Information and communication	15 515	17 715	114,2	60 432	67 388	111,5	3 749	4 569	121,9
Real estate activities	15 650	18 945	121,1	37 940	42 457	111,9	6 388	7 788	121,9
Professional, scientific and technical activities	55 092	62 670	113,8	183 980	208 916	113,6	10 542	11 807	112,0
Administrative and support services	11 796	13 362	113,3	101 963	113 107	110,9	6 334	6 990	110,4
TOTAL SMEs	**291 362**	**307 330**	**105,5**	**1 734 025**	**1 807 556**	**104,2**	**92 583**	**102 737**	**111,0**
ALL ENTERPISES (incl 250+)	292 415	308 378	105,5	2 588 941	2 669 418	103,1	154 098	168 004	109,0

Source: European Commission (2014b). A partial and fragile recovery. Database for the Annual report on European SMEs 2013/2014; own editing

The database is the resource for the SBA fact sheet, therefore all previous basic data concerning elements and content must be taken into consideration upon analyzing the figures. Concerning the enterprises covered by the fact sheet we can see a 5.5% growth in the number of Austrian SMEs from 2008 to 2013. The number of all enterprises has also grown with 5.5%, which means that actually the number of large enterprises has been stabile - actually the number of large enterprises has dropped in 2013 from 1.053 to 1.047. So the growth in the number of companies in Austria is only reached by SMEs. The number of persons employed has also grown since 2008, with 4.2% in the SME sector, and with 3.1% among all enterprises. SMEs hired 73.531 persons more compared to 2008, and large companies 6.947. It is remarkable how the value added at factor cost has developed compared to 2008, as in Austria there was a 9% growth fulfilled by the enterprises shown in the fact sheet. The SME sector played a key role again, generating 11% value added growth.

Sector specific we can see that the biggest growth in the number of enterprises focusing on ratio-growth was reached in the electricity, gas, steam and air condition supply, where a 42.3% growth was recognized compared to 2008. Second best was the real estate activities with a growth of 21.1%. The ITC sector has also grown by 14.2%. Regarding the number of people employed electricity, gas, steam and air condition supply sector again was best running, showing up a growth of 16.1% compared to 2008, followed by professional, scientific and technical activities with 13.6% and real estate activities with 11.9% growth. The development of the value added generated is again boosted by the electricity, gas, steam and air condition supply sector with 42.6%, followed by real estate activities and the ITC sector with an equal growth of almost 22% compared to 2008.

The results of the SMEs dealing with manufacturing show a controversial development, as the number of SMEs in this sector has dropped in 2013 by 5% compared to 2008, they employ almost 4% less persons, but the value added they generated has increased with 10%.

The fact sheet states, that Austria has one of the most competitive SBA profiles in the EU. In 2013 it outperformed the EU average in 6 out of the 10 areas. According to the fact sheet the profile of Austria is further strengthened by the fact that in 5 areas there is a continuous development to be recognized since 2008. Figure 3 shows Austria's SBA profile.

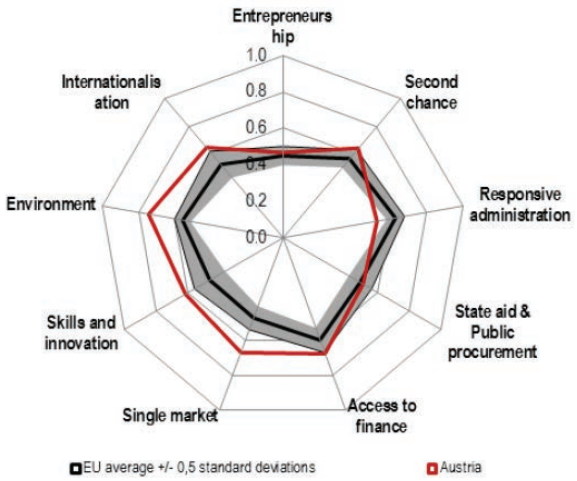


Figure 3
The SBA profile of Austria in 2013
Source: European Commission (2015c). Enterprise and Industry. 2014 SBA Fact Sheet Austria.

It is visible that responsive administration is the only category basically, where Austria is behind the EU average. According to the fact sheet an increasing problem for Austrian SMEs is the lack of skilled personnel in some industries, especially in the IT business.

7. SMEs in Hungary

The Hungarian SME sector did not manage to completely recover from the effect on the economy of the 2008 world economic crisis. Ever since the results of their number, employment and value added generation struggle at around 90%. The crisis effected SMEs much more than large companies. Table 6 shows the preliminary basic figures of Hungarian SMEs in 2013.

Table 6. Basic preliminary figures of Hungarian SMEs in 2013

	Number of enterprises			Number of employees			Value added		
	Hungary		*EU-28*	Hungary		*EU-28*	Hungary		*EU-28*
	Number	Proportion	*Proportion*	Number	Proportion	*Proportion*	Billion €	Proportion	*Proportion*
Micro	497 947	94.5%	*92.4%*	867 316	35.7%	*29.1%*	9	18.5%	*21.6%*
Small	23 906	4.5%	*6.4%*	447 932	18.4%	*20.6%*	8	16.2%	*18.2%*
Medium-sized	4 064	0.8%	*1.0%*	404 374	16.7%	*17.2%*	9	19.2%	*18.3%*
SMEs	**525 917**	**99.8%**	***99.8%***	**1 719 622**	**70.8%**	***66.9%***	**25**	**53.9%**	***58.1%***
Large	829	0.2%	*0.2%*	708 457	29.2%	*33.1%*	21	46.1%	*41.9%*
Total	**526 746**	**100.0%**	***100.0%***	**2 428 079**	**100.0%**	***100.0%***	**46**	**100.0%**	***100.0%***

Source: European Commission (2015d). Enterprise and Industry. 2014 SBA Fact Sheet Hungary.

In Hungary the SME sector consisted of more than 525 thousand enterprises in 2013, out of which we had almost 498 thousand micro-enterprises. As seen earlier, in Austria 307 thousand enterprises belonged to the SME sector, out of which 269 thousand were micro-size. The importance of SMEs in Hungary is clearly proven by the number of persons employed by them, in 2013 there were 1.719 thousand persons employed by them, which is almost 71% share of the total employment pool covered by the fact sheet, and which is more than 3% above the Austrian and almost 4% above the EU average. The value added generated by Hungarian SMEs was 25 billion EUR in 2013, which is not much compared to the 103 billion EUR generated by SMEs in Austria (EC, 2015d). A more detailed overview of the 2013 results of the Hungarian SME sector and its development compared to 2008 can be seen in table 7.

Table 7. The 2013 status and the development compared to 2008 of the Hungarian SMEs

HUNGARIAN SMEs	Number			Number of persons employed			Value added at factor cost		
	2008	2013	ratio (%)	2008	2013	ratio (%)	2008	2013	ratio (%)
Mining and quarrying	466	429	92,1	4 589	3 537	77,1	168	111	66,1
Manufacturing	55 901	49 310	88,2	417 911	369 204	88,3	6 097	5 730	94,0
Electricity, gas, steam and air condition supply	517	622	120,3	8 051	7 410	92,0	889	674	75,8
Water supply; sewerage, waste management and remediation activities	1 914	1 861	97,2	23 346	22 150	94,9	417	305	73,1
Construction	74 149	59 911	80,8	232 013	182 276	78,6	2 758	2 043	74,1
Wholesale and retail trade; repair of motor vehicles and motorcycle	148 379	134 661	90,8	498 219	440 872	88,5	7 272	5 546	76,3
Transportation and storage	32 720	28 049	85,7	104 673	99 142	94,7	1 932	1 999	103,5
Accommodation/ food services	33 128	30 824	93,0	117 527	113 985	97,0	689	597	86,6
Information and communication	34 319	33 020	96,2	76 560	77 371	101,1	1 489	2 018	135,5
Real estate activities	31 382	32 122	102,4	68 456	64 468	94,2	1 737	1 575	90,7
Professional, scientific and technical activities	106 837	116 380	108,9	192 765	209 937	108,9	2 739	2 771	101,2
Administrative and support services	45 485	38 728	85,1	137 570	129 270	94,0	1 564	1 603	102,5
TOTAL SMEs	**565 197**	**525 917**	**93,1**	**1 881 680**	**1 719 622**	**91,4**	**27 751**	**24 972**	**90,0**
ALL ENTERPISES (incl 250+)	566 084	526 743	93,1	2 638 505	2 428 077	92,0	51 153	46 336	90,6

Source: European Commission (2014b). A partial and fragile recovery. Database for the Annual report on European SMEs 2013/2014; own editing

Concerning the enterprises covered by the fact sheet (EC, 2015d) we can see a 7% drop in the number of Hungarian SMEs from 2008 to 2013. The number of all enterprises has also dropped with 7%, the actual number of large enterprises has dropped in 2013 from 887 to 829. So the drop in the number of companies in Hungary is both generated by the SMEs and the large companies. The number of persons employed has also dropped since 2008, with 8.6% in the SME sector, and with 8% among all enterprises, out of which the large enterprises have shown a drop of 6%, falling from 756.825 to 708.457 in 2013. SMEs hired 162.058 persons less than in 2008 and large companies 48.368 persons less. It is no wonder, that the value added at factor cost has also fallen heavily compared to 2008, as in Hungary there was a 10% drop in the SME sector itself, bringing down the value added to below 25 billion EUR instead of the 27.7 billion in 2008.

Sector-specific we can see that in only 3 of them we can see a development in the number of SMEs compared to 2008, all other areas have lost enterprises. Just like in Austria, electricity, gas, steam and air condition supply is leading in Hungary also, with a development in number by the highest ratio compared to 2008: 20.3%. Professional, scientific and technical activities have also gained new enterprises, almost 9% more were registered than in 2008. Real estate activities also managed to improve with 2.4%. Regarding the number of people employed only 2 areas were improving, the rest has dropped. Professional, scientific and technical activities improved by almost 9%, and the ICT sector with 1%. The value added generation has been boosted by the ICT sector, with 35.5%, and minor success can also be observed by transportation and storage (3.5%), administrative and support services (2.5%) and professional, scientific and technical activities with 1.1% compared to 2008.

Professional, scientific and technical activities is the only sector where we see an improvement in all three areas, there are more enterprises employing more persons and generating more value added in 2013 than in 2008. Manufacturing is in Hungary also a crucial issue, due to the fact that almost 370 thousand people are working in this sector, showing up a decrease in employment and in the number of enterprise of almost 12% compared to 2008, with a fall in value added generation by 6%. The fact sheet states, that the number of the areas where Hungary has to catch up with the EU in general is greater than where is reaches the EU average, or where it performs better. Figure 4 shows the SBA profile of Hungary.

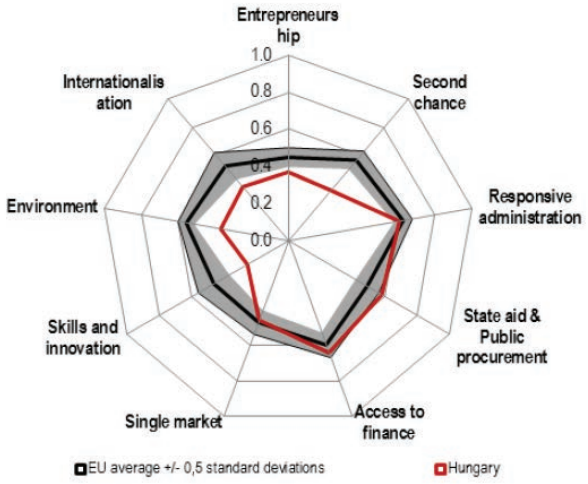


Figure 4
The SBA profile of Hungary in 2013
Source: European Commission (2015d). Enterprise and Industry. 2014 SBA Fact Sheet Hungary.

Now as we can see there are some areas where much effort is necessary to improve the Hungarian results in order to reach at least the EU average, and it will be very difficult to reach the level of Austria. According to the fact sheet Hungary has made continuous efforts in recent years to improve its business environment, which must be continued to lower administrative burdens and limited competition in major non-tradable sectors.

8. Conclusion

The contribution and importance of SMEs among the 21.614 thousand EU28 enterprises is out of question. The facts and figures related to Austrian and Hungarian SMEs show a serious difference between the SMEs of the two countries. Austria is a key performer, having outperformed the EU average in 6 out of the ten analyzed areas. With a rising number of SMEs employing more people and generating more value added, it can hardly be compared to Hungary's rather poor performance. Hungary most keep on focusing on the SME sector, as its importance on the fields of employment is high.

References

22. European Commission (2015a). Growth, Industry, Entrepreneurship and SMEs. http://ec.europa.eu/growth/smes/ (accessed 15.09.2015)
23. European Commission (2003). Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003H0361 (accessed 15.09.2015)
24. European Commission (2015b). User guide to the SME definition. Luxembourg, 2015. http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8274&lang=en&title=The-revised-user-guide-to-the-SME-definition (accessed 15.09.2015)
25. European Commission (2014a). A partial and fragile recovery. Annual report on European SMEs 2013/2014. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/files/supporting-documents/2014/annual-report-smes-2014_en.pdf (accessed 14.09.2015)
26. European Commission (2014b). A partial and fragile recovery. Database for the Annual report on European SMEs 2013/2014. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm (accessed 14.09.2015)

27. European Commission (2014c). European SMEs according to Annual Report on European SMEs 2013/2014. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm (accessed 13.09.2014)
28. European Commission (2015c). Enterprise and Industry. 2014 SBA Fact Sheet Austria. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm (accesses 20.09.2015)
29. European Commission (2012). Monitoring SMEs' performance in Europe. Indicators fit for purpose. Methodological note. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm (accesses 20.09.2015)
30. European Commission (2015d). Enterprise and Industry. 2014 SBA Fact Sheet Hungary. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm (accesses 20.09.2015)

SUCCESSION ISSUES IN ALBANIAN FAMILY BUSINESSES: AN EXPLORATORY RESEARCH

Veland Ramadani, PhD[115]

Abdylmenaf Bexheti, PhD[116]

Gadaf Rexhepi, PhD[117]

Sadudin Ibraimi, PhD[118]

Abstract

Family businesses represent one of the oldest forms of business organizations. Family businesses are an important source for generating jobs generation after generation in most of the countries, including the transition ones. Our main focus is on the succession of the family business which seen as the biggest challenge faced by companies in the long run. Succession in general term can be defined as a replacement or transfer of the management and control of the business from generation to generation. The purpose of this article is to share findings related to succession of family businesses in Albania. In order to gain a better picture of the current situation, problems and perspectives that stand in front of families with respect to succession issue it was conducted a survey. The questionnaire was distributed physically and through e-mail.

Key words: *family business, succession, successor, succession models, Albania*

[115] Faculty of Business and Economics, South-East European University, Ilinden 335, 1200 Tetovo, Macedonia, E-mail: v.ramadani@seeu.edu.mk

[116] Faculty of Business and Economics, South-East European University, Ilinden 335, 1200 Tetovo, Macedonia, E-mail: a.bexheti@seeu.edu.mk

[117] Faculty of Business and Economics, South-East European University, Ilinden 335, 1200 Tetovo, Macedonia, E-mail: g.rexhepi@seeu.edu.mk

[118] Faculty of Business and Economics, South-East European University, Ilinden 335, 1200 Tetovo, Macedonia, E-mail: s.ibraimi@seeu.edu.mk

Succession issues in Albanian family businesses: An exploratory research

1. Introduction

Family businesses represent the majority of companies and are an important source for the generation of jobs in most countries (Fattoum & Fayolle, 2009; Hacker & Dowling, 2012; Kellermanns, Eddleston, Barnett & Pearson, 2008; Kuratko & Hodgetts, 2004). Continuity of family businesses generation after generation is very important for family businesses and for the economy as a whole. Succession is one of the most difficult decisions for the family business, but is also one of the most important (Molly, Laveren, & Deloof, 2010; Ramona, Hoy, Poutziouris, & Steier, 2008; Sardeshnukh & Corbett, 2011).

The purpose of this article is to provide information on Albanian family businesses and their succession issues. The paper is structured as follows: in section one is presented the literature review, where are treated different definitions and aspects of family businesses, succession processes and succession models; in section two is presented the Albanian business environment for family businesses; methodology is presented in section three, followed by findings in section four; the paper ends with further study recommendations and conclusions.

2. Literature review

2.1. Family businesses - definitions, interest and other aspects

Family businesses constitute the dominant and oldest form of business organizations. Almost in all countries of the world, family businesses play a key role in overall economic development, including workforce engagement. Understanding the family businesses ranges from a small enterprise on the edge of a road to a neighborhood, to large conglomerates that operate in different industries and countries (Dana & Ramadani, 2015; IFC, 2008). Therefore, the definition of family businesses is a quite complex issue, where relevant difficulty represents the interaction of the family system and business (Chua et al, 1999; Ramadani, Fayolle, Gërguri-Rashiti & Aliu, 2015).

The general concept of the family business includes any business, in which the bulk of the ownership or control lies in a family, and in which two or more family members are involved directly (Brockhaus, 2004; Ramadani & Hoy, 2015). Family business is a double complex system, comprising business and family. These systems overlap and are both dynamic organisms that develop and change and are both unique with their particular history, challenges, strengths, weaknesses, opportunities and threats that are exposed. Family members who are involved in the business are part of a system of tasks of business and part of the family system. For this reason, conflicts may occur because each system has its own rules, roles and requirements. Families can have their own style of communication and conflict resolution which can be good for the family but it does not mean that this will be good for resolving business disputes. Entry to the family system is from the east and membership is permanent, whereas entry into the business system is based on experience and opportunities. As in the family, also in business too, roles as president of the company, manager, employee, shareholder or owner carry their responsibilities and expectations. Conflicts may arise when the problems from one system are transferred to another system (Bowman-Upton, 2009; Ramadani & Hoy, 2015).

A definition of family business should determine why it is unique, and this raises the question of “what is it unique?” This has nothing to do with the fact that family members own or manage a business. What makes a family business unique is that the model of ownership, governance, and succession management, materially affect the objectives, strategies, structure, and the way in which

it is formulated, designed and implemented as business activity (Chua et al., 1999; Ramadani & Hoy, 2015; Ramadani, Fayolle, Gërguri-Rashiti & Aliu, 2015).

According to Poza (2010) if a business is to be considered a family business it must meet the following characteristics: (a) ownership control (15% or higher) by two or more members of the family or families partnership; (b) strategic influence by family members on the management of the firm, either by being active in management, continuing to create culture, serving as an advisor or board member, or by being an active shareholder; and (c) concern for family relationships; the dream or possibility of continuity across generations. Further, the same author, to this list of features, in the tendency to give a clearer picture for the family business and to differentiate from other businesses, adds several features, as follows: (a) the presence of the family; (b) the overlap of family, management, and ownership, with its zero-sum (win-lose) propensities, which in the absence of growth of the firm, render family business particularly vulnerable during succession; (c) the unique sources of competitive advantage (like a long term investment horizon), derived from the interaction of family, management, and ownership, especially when family unity is high; and (d) the owner's dream of keeping the business in the family (the objective being business continuity from generation to generation).

Alderson (2011, p.6) defines a family business as "business governed and/or managed in order to form and follow the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families that is potentially sustainable in all generations of the family or families." Carlock and Ward (2001) described a family business as a scale which should be balanced between the requirements and business opportunities and the needs and desires of the family. The balance between these two 'forces'-business and family can be achieved based on five variables, including: (a) *control:* setting in a fair way who will arrive at the decisions; (b) *career:* need to make it possible for family members to be rewarded and promoted based on their performance; (c) *capital:* family members can reinvest without damaging the interests of other family members; (d) *conflict:* conflict must be addressed due to the proximity between business and family; and (e) *culture:* family values have to be used in the development of plans and actions. Based on presented definitions, it can be concluded that even today there is not a generally accepted definition for family business (Chua et al, 1999).

2.2. Succession in family businesses

The succession issue of family businesses has been addressed comprehensively in the literature. This process, as presented in Figure 1, includes three elements: ***processes*** (management and ownership succession), ***activities*** (intended to integrate family members into the management and ownership succession processes and to feel comfortable with both succession processes and outcomes) and ***desired outcomes*** (integrated family members, informed decision making, etc.).

In general, succession process in family businesses is analyzed as a transfer of the management and ownership of the business. Ownership succession focuses on who will own the business, and when and how this process will occur. Management succession focuses on who will lead the business, what changes will occur, when they will be accountable for the results and when these results will be achieved.

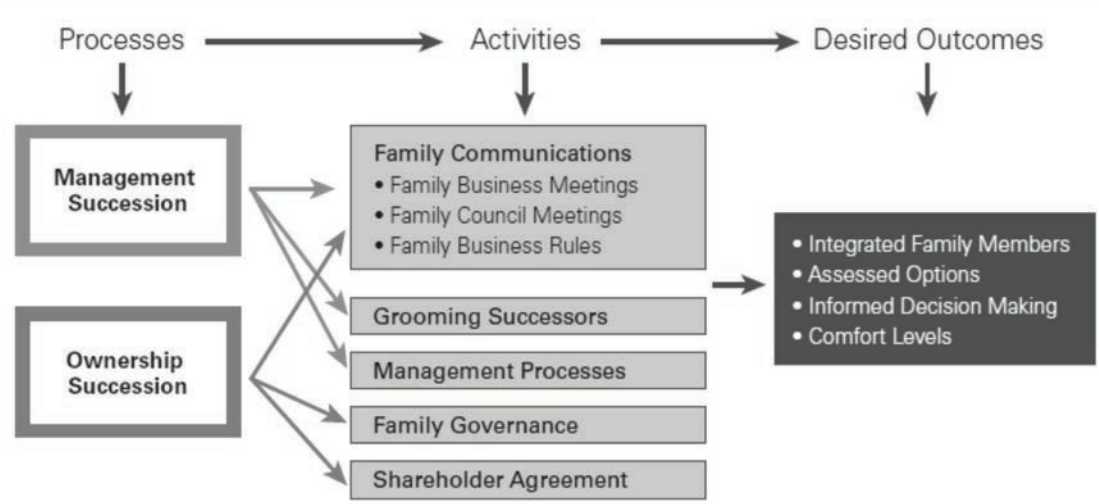


Figure 1. Elements of succession in family business
Source: Walsh, 2011, p.15

Effective integration and management of the family component will have a decisive effect on the success of the succession process (Walsh, 2011). As a definition, succession is the replacement of the founder and management tasks by the successor. According to Handler (1990) the continuity process is described as a joint arrangement of the role between members of the current and succeeding generations. In order to become a successful leader, the successor must be fully engaged in the process of continuity. The process of continuity in family businesses is intended to provide competent leadership in all generations. This process involves changes at a managerial level that includes CEO and top management and ownership level (Giudice, Peruta & Elias, 2011).

Succession is the biggest challenge facing family businesses in the long term. The desire of the owners to plan for succession in ownership and management is often the main factor that determines survival or failure of their business (IFC, 2008). The generation change process is difficult and continuity is required as the last and most difficult test for family businesses. Succession is not a single event that occurs when the old leader retires and passes the torch to the new leader, but is a process driven by development that begins very early in the life of some families and continues through maturation and aging generations. Succession is a process of preparation and forecasting, which helps in better way to surrender the keys of leadership, regulation and business adjustment in cases of illness or sudden death. This process in family businesses, presents a unique opportunity for strategic re-orientation based on the shared values of the family (Gersick, Davis, Hampton & Lansberg 1997; Laakkonen, Kansikas & Valtonen, 2011).

The importance of succession for family businesses is such that one of the authors has studied the most the phenomenon of family business defines these businesses in terms of their potential for succession. His defining for family business is: "The family business is a business that will pass to the next generation of the family to manage and control" (Ward, 1987 p.252).

The founder should commit to transfer his knowledge and intellectual capital to the next generation, so that his family business can survive and continue on to the next generation. It is important that the founder convey to his children a sense of pride for the family business and at the same time sincerely discuss the risks and problems that they may face. Succession planning should be the most important task of the leader of the family business and should be initiated at an early stage of the life cycle of the business. Succession includes two movements: the successor that moves and takes office and the leader who retire. This motion is very important for the process of succession as it should be done with the selection of the right successor. Succession planning is like insurance, as it protects the family from the destruction of financial value (Hess, 2006). More than

30% of all family businesses survive the second generation, and after that the numbers begin to fall, where only 12% of family businesses are able to move on to the third generation, and only 3% can continue in the fourth generation (Strategic Designs for Learning, 2012).

Good succession planning takes time and is successful when it results from the creation of good relations with the next generation and is based on responsibility, commitment and mutual respect. This planning should begin as soon as it is established if the company's target is keeping the business within the family, as it is necessary that strong leadership guide the business through the transition process. Both generations have to look at succession as a process and not as an event (IFC, 2008).

For the transfer of control and responsibility of the family business to take place in the best way possible it is necessary that the next generation become the main purpose of succession planning that has to be achieved. Preparation for the transfer of ownership is to say to one's son/daughter that the transfer of the business will be made to him/her. Change of leadership should be planned carefully and should avoid making hasty decisions based on events that may occur as: diseases, marriages, separations or deaths.

The purpose of the succession is to make the business successful in the future, and at the same time be independent from the outgoing chief executive. The family business should be left to the successor in the best possible condition so that he/she can easily integrate into the business and continue successfully. The business should be left for the successor in the same way it should be presented for sales, with the highest value possible (Gashi & Ramadani, 2013; Ramadani, Gashi, Fiti & Humolli, 2015).

2.3. Succession models

A succession model presents a frame of phases that are related to each-other. In the literature about family businesses are presented different models from different authors.

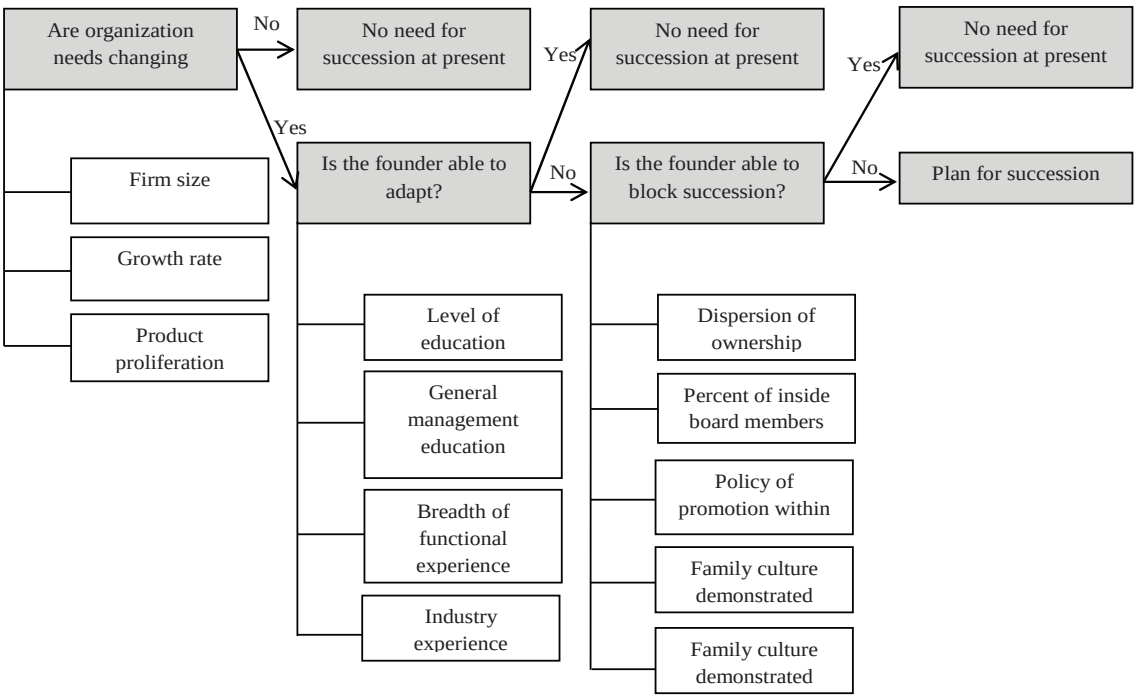


Figure 2. A contingency model of initial succession
Source: Rubenson and Gupta, 1996.

Rubenson and Gupta (1996), developed a contingency model for initial succession. This is a situation when the founder/owner takes a decision to depart from the business. This model is presented in Figure 2. The authors have identified three perspectives of succession: ***a) Succession as an inconsequential event:*** This perspective is related to larger companies which are characterized with bureaucratic structure and the departure of founder will have little impact on the company; ***b) Succession as a disruptive event:*** This perspective is related to small entrepreneurial companies and the departure of founder will have relevant impact on the company performance; ***c) Succession as a rational organizational adaptation:*** The eventual departure of the founder is seen as a catalyst that causes the company to concentrate proactively on ways it can increase the possibility of an adaptive succession.

The model presented by Scarborough (2012) consists of five stages. This model is presented in Table 1.

Table 1. The succession process in family businesses

Early involvement with the business in routine tasks (while very young and in high school.	Rotation among various assignments on summer/holiday vacation time (while in college)	Entry-level position with planned job rotations, regular performance evaluations and mentoring by both insiders and outsiders	Greater responsibility Department or functional manager; service on advisory board	General manager Transition phase; membership on the board
Stage I	**Stage II**	**Stage III**	**Stage IV**	**Stage V**

Source: Scarborough, 2012, p.675

Decision-making responsibility

Another model of the succession process model is the model known as "six stairs to transfer the family business" (Figure 3). This model is presented by Lambrecht (2005) and is based on empirical research where different family businesses were taken into consideration.

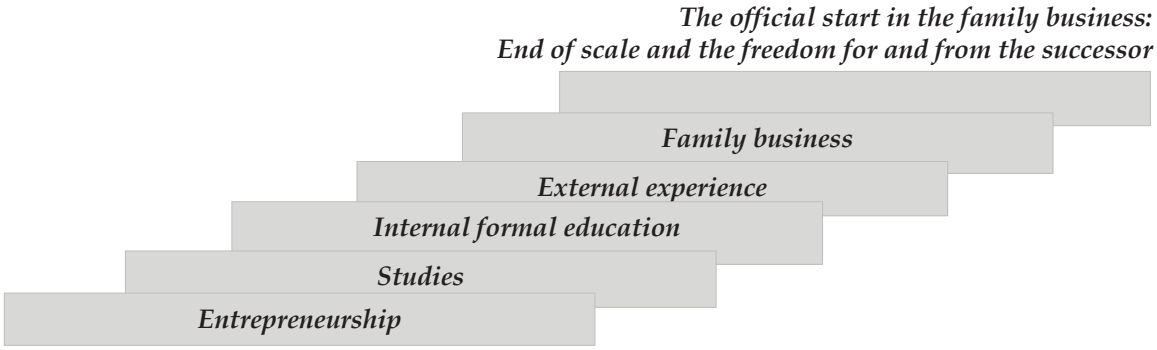


Figure 3. Six-stairs model for family business transfer
Source: Adapted from Lambrecht, 2005

In this model, the ***first stair*** is entrepreneurship, where during this degree the transfer of professional knowledge, values, management, leadership characteristics and the soul of the organization are transferred to the next generation. The parent distinguishes three stages of the child's life that affect the transfer of professional knowledge. Potential offspring can learn the secrets of product and trike sales through these three stages. Family business is like a playground for children. In the second stage, successors are given the easiest tasks in the family business and in the third phase are asked to perform more serious tasks in the family business.

The ***second stair*** for the successful transfer of family business consists of studies. Most of the successors are encouraged before entering fully into family business to take an advanced degree, where in most cases the studies are oriented towards a family business sector. In other cases, the potential successors are free to choose which discipline they wish to study.

The ***third stair*** consists of internal formal education. During this phase, the successor learns about great business contacts and is provided with the business contacts, after meetings in order to achieve a proper understanding of the business. At this stage the potential successor skills are judged by the predecessor.

In the ***fourth stair*** the successor gain experience through working in other companies. This experience provides the potential successor with a knowledge and wisdom that helps him/her to cultivate self-confidence.

The ***fifth stair*** is the official beginning of the successor in the business. Before the successor takes a management position, it usually passes through the various departments in the business. In this way, the successor becomes self-proven and tries to win the trust of employees, and reveals business sectors and consumers. Freedom for the successor means taking responsibility, respecting previous generations, seeking advice from the transferor, and realize that the past is the basis which leads to the future.

The ***sixth stair*** is associated with planning and writing arrangements. Here consideration is given to the needs that may arise in the bad days of business that may come as a result of the death or resignation of a member of the family. Written plans should be well planned because poor planning can be very costly for the family and for business.

3. Business climate for family businesses in Albania

Albania is a small country located in South-East Europe, i.e. Central Balkan Peninsula. Albania declared its independence in November 28, 1912, which was recognized by the Conference of London on 29 July 1913. It covers 28,750 km2 (11,101 square miles), bordering the Adriatic Sea to the west, the Ionian Sea to the southwest, Greece to the south and southeast, Macedonia to the east, Kosovo to the northeast and Montenegro to the northwest. The capital is Tirana, the largest city of Albania, inhabited by around 25% of the total population. According to the last Population and Housing Census, realized in 2011, the total population of Albania is 2,821,977. Albanians are divided into two dialect groups: Gheg and Tosk. Gheg is widespread in the north, while Tosk in the south (see Dana, 2010). In Albania, three national minorities (Greeks, Macedonians and Montenegrins), and two cultural minorities (Aromanians and Romani people) are recognized. Population of Albania consists of: Albanians 2,312,356 (82.6%), Greeks 24,243 (0.9%), Macedonians 5,512 (0.2%), Montenegrins 366 (0.01%), Aromanians 8,266 (0.30%), Romani 8,301 (0.3%), Balkan Egyptians 3,368 (0.1%), other ethnicities 2,644 (0.1%), no declared ethnicity 390,938 (14.0%), and not relevant 44,144 (1.6%). Population of Albania based on their religious affiliation is as follows: 56.7% Muslims, 13.79% undeclared, 10.03% Catholics, 6.75% Orthodox believers, 5.49% other, 2.5% Atheists, 2.09% Bektashis and 0.14% other Christians (INSTAT,

2012; CIA World Factbook, 2012; UN, 2011). Albania is a member of the UN and NATO. The GDP (PPP) of Albania in 2012 was 29.86 billion $ or 9.600$ per capita. The real GDP growth rate in comparison with 2011 was 3.5% (INSTAT, 2012; Rexhepi, 2015).

As a country where EU integration is among the top priorities, Albania didn't make serious improvements of the overall business environment, as Doing Business (2014) in its 2014 Report ranked it 90th out of 189 countries. This is a sign that the government in Albania should do more in this segment in order to improve the overall Albanian business environment. In certain segments that make up the overall business environment, major changes are needed. As for the political environment, Albania is ranked on 63rd place, for government effectiveness on 85th place, regulatory environment on 64th place, human capital & research on 82nd place, infrastructure on 70th place, market sophistication on 35th place, business sophistication on 123rd place, scientific outputs on 96th place and creative outputs on 81st place (Dutta et al., 2014; Dutta, 2011). If we compare Albania only in one segment, for example, market sophistication, even with a country such is Italy, it can be seen that Albania is ranked in a better position, but the problem is that comparing the other segments Albania is not well-positioned. In order to have a better result in the overall economic processes, it is necessary to put additional efforts in all areas on an uninterrupted base. Regarding the key segments that make up the business environment, the situation in Albania is as follows:

a) Property rights. Good protection of property rights, effective execution of contracts and the law is directly related to fostering and development of the entrepreneurial activities. Smallbone and Welter (2009) noted that protection of property rights includes freedom from bribery, extortion, racketeering and corruption, which are conditions still faced in some transitional economies, including Albania. Based on International Property Rights Index 2013, from 131 analyzed countries, the most of transition countries are ranked in the 'second part' of the list. Albania is ranked on 112th place (Di Lorenzo, 2013), which mean that reforms in this segment still remains to be a real challenge for Albania.

b) Corruption. Unfortunately, Albania in this segment stands in a very awful position – it is in the group of highly corrupted countries. Transparency International Corruption Perceptions Index 2013 shows that from 175 analyzed countries, Albania is ranked on 166th place (Transparency International, 2014). According to the same report, transitional economies are mostly ranked in positions from middle to high corrupted countries. For instance, Turkmenistan and Uzbekistan are ranked on 168th place, Ukraine on 144th place, Russia on 127th place, Belarus on 123rd place, etc. In slightly better positions are ranked Estonia (28), Poland (38) and Hungary (47). Therefore, it is necessary for state institutions to undertake more concrete and stringent measures in this direction, that would result in cutting lengthy court procedures, simplifying complicated procedures for obtaining various permits, facilitating the introduction and transfer of new technologies, consistently protecting intellectual property etc. This can increase the rate of entry of new small and medium enterprises and enterprises with high growth potential, as well as the interest of potential investors to invest money, expertise and time (Ramadani, 2013; Smallbone and Welter, 2001).

c) Administrative and bureaucratic obstacles. Long administrative and bureaucratic procedures represent a serious obstacle of doing business. Fiti and Ramadani (2013) noted high correlation between the administrative and bureaucratic procedures (expressed by the number of necessary procedures and required days for starting a new business) and corruption – the more procedures, the more opportunities for corruption. Regarding this issue, most of transition countries have marked significant improvements - most of them are in a better position comparing to some European Union (EU) countries, such as Spain, Greece and Malta (Doing Business, 2014). If we see the Doing Business ranking list, from the group of transition countries, in Top 5 countries are ranked: Georgia (8th place), Lithuania (17th), Estonia (22nd), Latvia (24th) and Macedonia (25th). In this segment, regrettably Albania also does not stand in an enviable position – as ranked on the 76th place, comparing with the other countries from the region, it is better ranked only than Bosnia and Herzegovina (174th place) and Croatia (80th place). Starting a business can be realized within 4.5 days and 5 procedures.

d) Tax policy. Albania introduced the 10% flat tax in 2008, as an intention to reduce the tax burden on individuals and enterprises, but replaced it at the end of 2013 with two higher rates on personal income (10% and 23%) and higher corporate profit tax (15%). The 13% rate applies to incomes between 30,000-130,000 ALL (1$=102$). Above this amount, the 23% rate is imposed. The first 30,000 ALL of income (295$) are exempted. Corporate profits tax was increased to 15%, with an exemption provided for small businesses. Taxpayers with an annual turnover between 2 and 8 million ALL will be subject to a simplified income tax on small business - levied at a 7.5% rate. Taxpayers with an annual turnover of less than 2 million ALL will be subject to a fixed tax amounting to 25,000 ALL per year (see KPMG, 2014).

e) State regulation. Considering this issue, it is necessary to strengthen the independence of regulatory bodies, thus ensuring fair and predictable regulation of the domains of market failure (public goods, asymmetric information, externalities, the existence of monopolies, unequal distribution of income, etc.) and deregulation, removal of numerous administrative and bureaucratic obstacles that impede faster growth of businesses respectively. According to Schwab (2013), Albania is on the 95th place, out of 148 analyzed countries, with a score of 3.85 (1-7, where 1 is the worst, while 7 is the best rating).

f) Infrastructure. Infrastructure as a general input of economic activity has a significant impact on costs for business. This applies to large-scale infrastructure such as roads, railways, airports, energy, telecommunications, etc. In this segment, Albania is ranked in the 92nd place (out of 148 countries analyzed) in terms of quality of overall infrastructure, with a score of 3.8 (rates 1-7, where 1 is the worst, while 7 is the best rating). Separately, in terms of the quality of telecommunications it is ranked in the 75th place, the quality of roads in the 76th place, the quality of electricity supply in the 85th place and quality of port infrastructure in the 109th place. The worst position is related to quality of railroad infrastructure, as Albania takes the 118th place (Shwab, 2013).

In order to encourage entrepreneurial initiatives, Albania should provide an encouraging business environment which involves good protection of property rights, effective execution of contracts, rule of law, qualitative and non-arbitrary regulation, stable and predictable government policy, fight against corruption, elimination of administrative and bureaucratic barriers, favorable tax policy provisions for this type of investment, opportunities for broad absorption power of the market, etc.

4. Methodology

In order to gain a better picture of the current situation, problems and perspectives that stand in front of families with respect to succession issue it was conducted a survey (March-August 2015). The questionnaire was distributed (face-to-face) to the owners of several businesses as well as through e-mail. The questionnaire was distributed to 46 businesses. The questionnaire consisted of 20 questions. We asked business owners to send us the completed questionnaire within 10 days. Thirty-two business owners responded positively to our questionnaire. The number of businesses that have not answered is 8 and 4 businesses have stated that they do not consider their businesses as a family businesses. The largest number of businesses that responded to us was located in Tirana (48%), 24% operate in Durres; the number of surveyed businesses from Korça, Elbasan and Fier was 8% each and 4% were from Ksamil. Businesses were identified as family businesses if the manager or owner confirmed to us that their business was a family business.

5. Findings

The issue of succession is one of the main and more critical problems and challenges for every family business. Many business owners in Albania fear that if they leave their business, then their jobs inherited by their successors may fail. They find it difficult to accept the fact that someone can replace them successfully. The advantage of a family business is that the children of the business owner usually gets involved at an early age in the business, and expends a lot of energy to train their successors, as a means to help one get acquainted with the procedures and challenges of the business. They must be aware of everything that happens in the business, and should be an example for other workers by being the first to arrive at work and the last to leave.

The following part provides summarized results of the survey conducted in the period of March-August 2015 and was related to specific issues related to the family businesses and the succession process.

a) Business sector. Albanian family businesses operate in various sectors such as trade, services, construction, manufacturing and other sectors. According to the research data, 74% of respondents operate in the trade sector, 12% of family businesses provide various services, 6% are in the construction sector, 4% are in the manufacturing sector and 4% stated that they operate in other sectors.

b) Gender of the founder. Regarding the gender of the founder of the family business, 92% of businesses stated that they were men and only 8% are women. These figures demonstrate that there are still difficulties for women to establish personal business and they need greater support to establish their businesses.

c) Age of the business founder. In Figure 4 the age of the business founder is presented. According to the survey, it was learned that 28% of the founders of the business were under the age of 40 years, while 36% between 40 and 50 years. Further, 26% of the respondents were between 51-60 years and 10% were over 60 years.

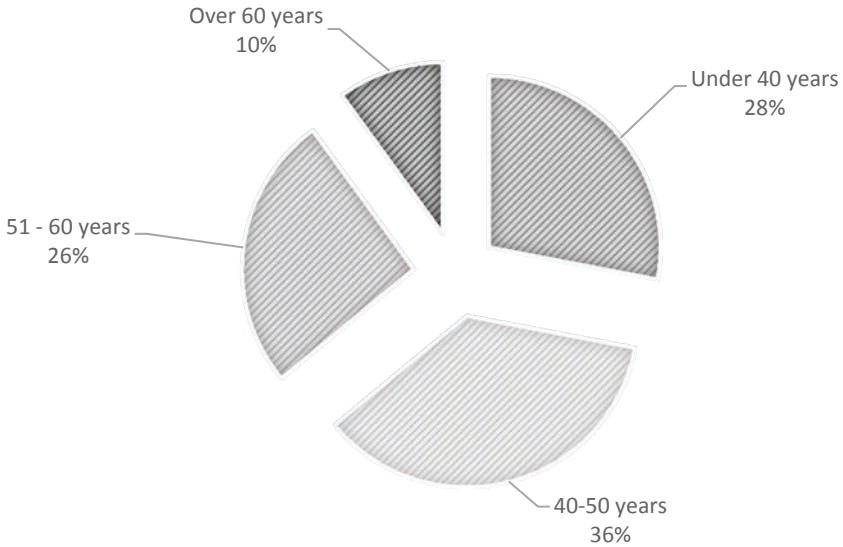


Figure 4. Age of the founders

d) Age of the business. Regarding the age of the business (number of years in business), most of the respondents stated that their business was in a very early age, which means that it is still in the first or second generation and none of the respondents stated that their business was in the third generation, which is quite disturbing. For a family business it is a very difficult transition to the third generation.

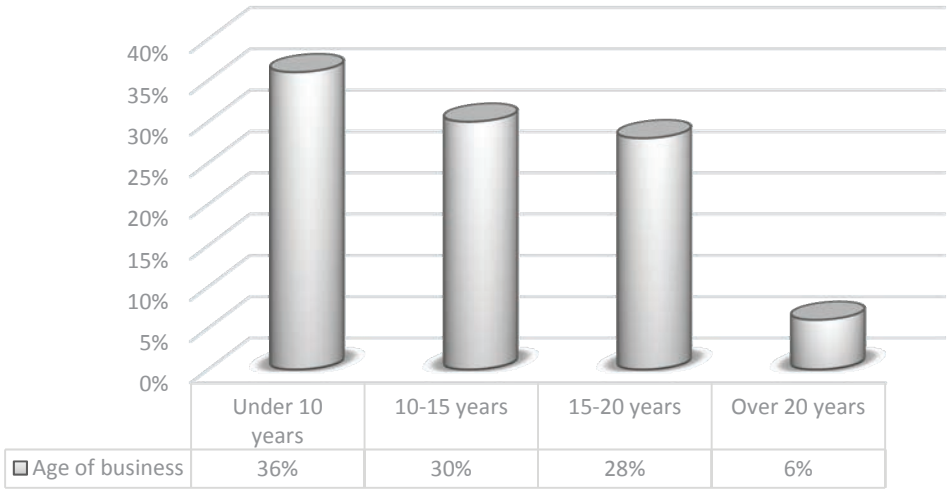


Figure 5. Age of business

From the data presented in the Figure 5, it can be seen that 36% of businesses are under the age of 10 years, which means that they are still in the early stages of the business development. 30% were between 10 and 15 years old. In the 15-20 year age range were 18% of the family businesses. Only 6% of businesses were over 20 years old.

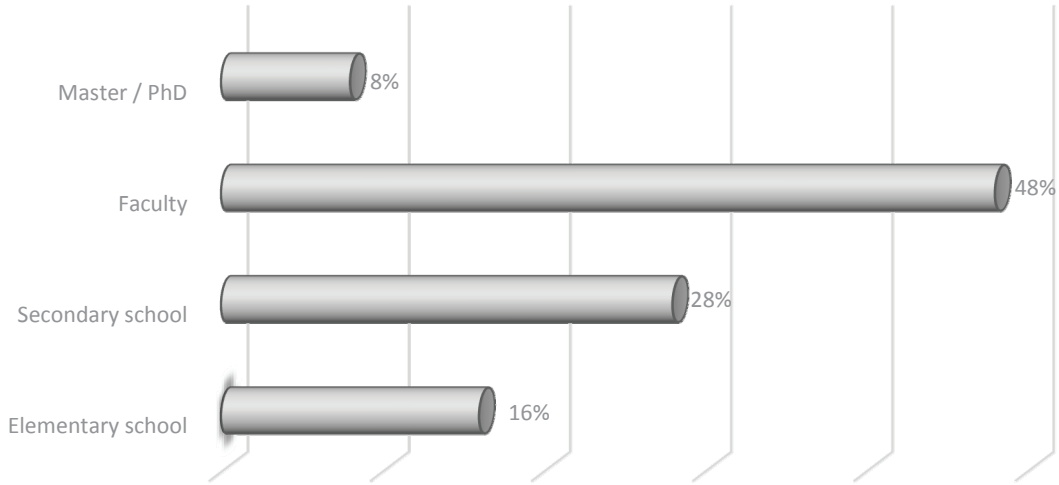


Figure 6. Education of the founder

d) The level of education of the founders. Regarding the issue of the founders' education, our data showed that 16% are with primary school, 28% of these founders are with secondary school, and 48% are with faculty. Only 8% of business founders are with masters or PhD (Figure 6).

e) Number of the employees. We have been interested to derive information about how many employees are employed in family businesses in order to value better their contribution to the economy and society. From the survey data (Table 3) it can be concluded that 28% of family businesses are employing less than 10 employees. Family businesses that employ 10 to 50 employees constitute 48%. Family businesses that employ 50 to 250 employees account for 18%, while those employing more than 250 employees make up 6%.

Table 3. Number of employees in family businesses surveyed

Number of employees	*Less than 10 employees*	*From 10 - 15 employees*	*From 50 to 250 employees*	*Over 250 employees*
Percentage of businesses	28%	48%	18%	6%

It is important to know the number of family members employed in these businesses. These data are presented in Table 4.

Table 4. Number of employees who are members of the family

Number of employees that are family members	*75-100% are members of family*	*50-75 are members of family*	*30-50% are members of family*	*Under 30% are members of family*
Percentage of businesses	42%	26%,	20%	12%

f) The gender of the first child. Another interest of the research was to learn whether the first child of the founder was male or female. The data showed that, from the family businesses surveyed, 64% of the founder's first child was a boy and in 36% of the cases, a girl.

g) Education and the founder's children. Education of children is very important to the founder if he wants one of his children one day to take over the leadership of the business. The more prepared their child are, the more successful will be the leadership of the business. The survey showed that in 34% of the businesses, the founders' children are still in school and are not engaged in the business. In 14% of surveyed family businesses, the founders' children are not enrolled in school yet and are not engaged in business as well. In 36% of businesses, the owners' children are in school, but also are engaged in the business on part-time basis in order to become more familiar with their family business and be ready when the time comes to make business decisions. There are 16% of businesses, where the children of the founders have graduated and are engaged together with their parents in everyday business activities.

h) Planning of the succession issue. According to respondents, 26% of family businesses do not have a plan regarding the succession issue. Founders who have planned the succession comprise 30% of the businesses. Those who think about the succession comprise 24% of businesses, while 20% of the founders responded that for now they are not planning anything.

i) The child that will inherit the business. The data from Figure 7 are showing that the majority of family business founders or 52% shall transfer business leadership to their first child, because they think that the oldest child can lead better the business and is more experienced to be a leader. Those who have declared that they will transfer their business leadership to the second child make up 18% of businesses; however, most of those indicated that the gender of the first child was "female". It seems that founders of businesses still do not have the courage to transfer the business leadership to their daughters. The founders that claim that they will transfer the business leadership to their third child constitute 4% of businesses. A large number of founders wish to transfer business leadership to all the children at once, and they make up 16% of the businesses, since they do not want to make distinctions among their children, while 10% of surveyed founders stated that their business leadership could be transferred to someone else (or be sold), because they do not have children.

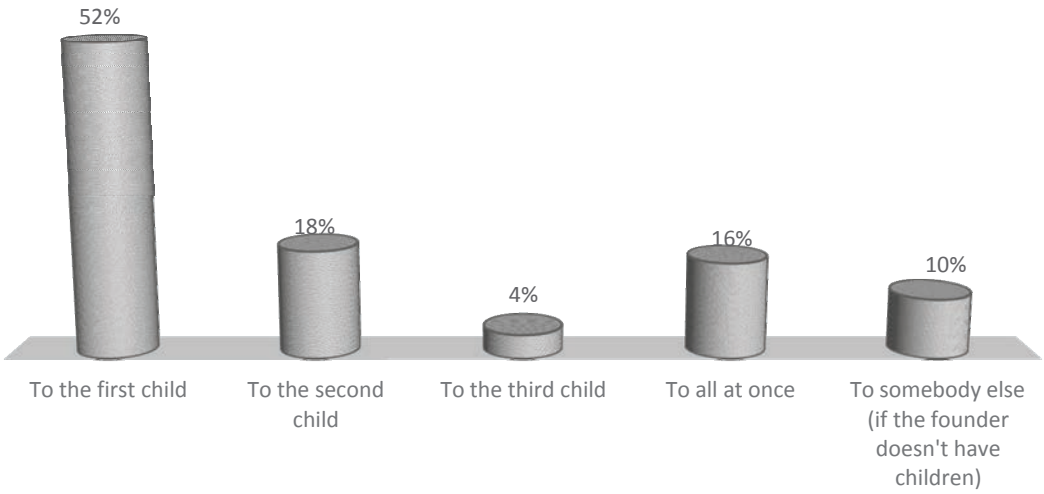


Figure 7. The child that will inherit the business

j) Announcing the successor. In order to avoid family conflicts, the business founder often does not announce who will be his successor. In Figure 8 are presented the data related to this issue. According to the survey, 20% of the founders have informed their children who will be his successor. Those who have not assigned yet their successor comprise 28% of family businesses. Some founders (14%) are planning in the near future to assign and announce who will be their successors. Many founders (38%) do not want to inform their successor about the decision until the time comes to transfer the leadership because as was stated, they do not want to create jealousy between their children.

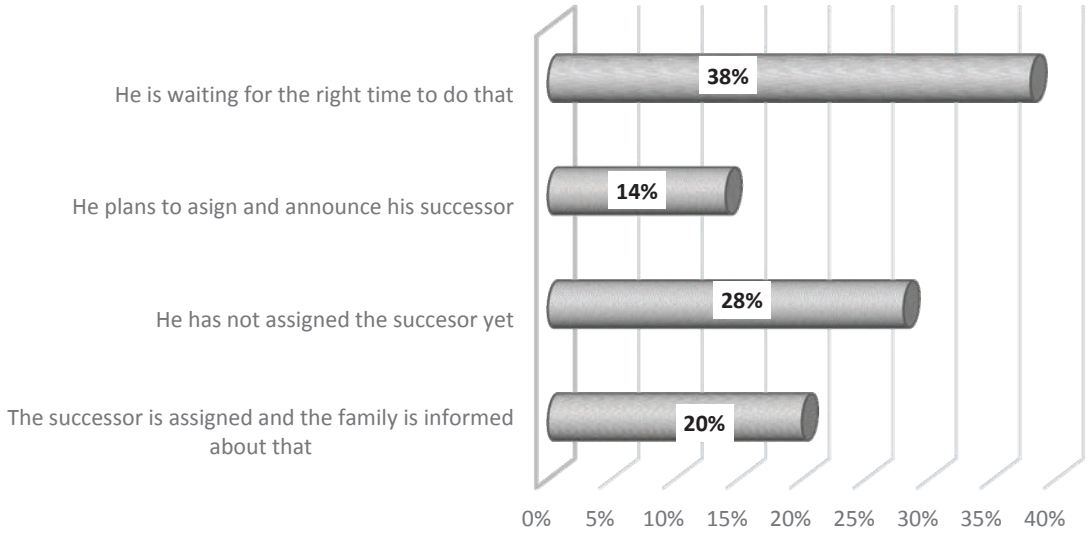


Figure 8. Assigning and announcing the successor

k) The age of founder's children. The founders' children age varies from business to business. The survey showed that in 42% of family businesses, the chosen successor is less than 20 years old, while in 36% of businesses, he is between 20-25 years old. Further, 14% of the founders declared that their chosen successor is between 26-30 years old; while 8% of the founders declared that their chosen successor is over the age of 30 years.

l) The ideal founders' age to transfer the business to the successor. What is the ideal age of the founder to transfer the business management to his successor? This is a very difficult question for the business founders, because for many of them, the retirement from the family business represents a real challenge and often there is a fear of death or what they will do after leaving the

business. This is clearly shown by the responses of the founders, where only 8% stated that the ideal founders' age to inherit the business management to the successor is under the age of 50. A larger number of them (28%) think that the ideal age to transfer the business is between the age of 50 and 55 years. The largest number (48%) of founders thinks that the best age to transfer the business to the successor when they are between 55 and 60 years old. According to them, this is the best age for retirement and more comfortable senility. While, those who think that, the ideal age to transfer the businesses to the successor after the 60s, constitute 12% of the surveyed businesses.

m) The successor's management experience. Before a successor takes over the management of the family business, he should be familiar with the business and the industry in which it operates. He also must understand how the business is operating if he wants to continue successfully conducting the businesses his parents have led for many years. From Figure 9 can be seen that the person who is expected to be the family business successor and has no management experience is identified in 48% of the surveyed businesses. Those who have at least 5 years management experience is identified in 24% of the businesses, 5-10 years of experience in management, in 18% of the businesses surveyed. Those who have over 10 years of experience in management positions constitute 10% of family businesses.

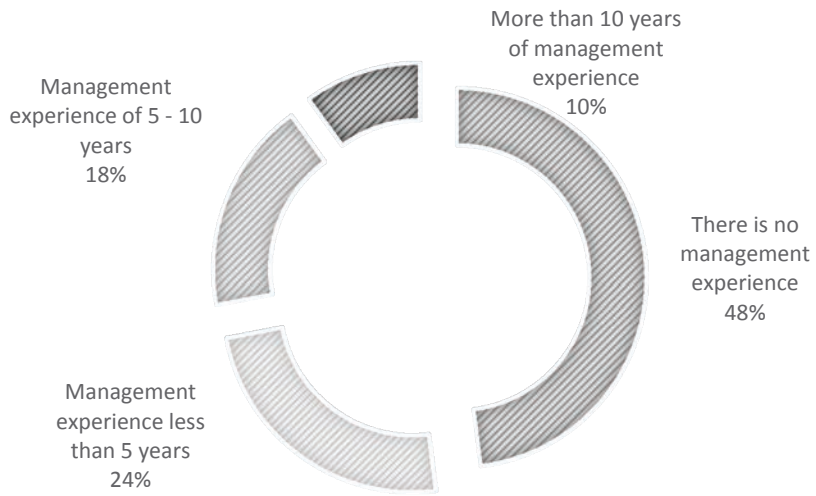


Figure 9. Heir of the family business and management experience

n) Length of "owner-successor" joint management. For the successor it is important that in the early years as a business manager that he work along with and take business decision leadership advice from his parent who previously led the business in order to learn better about the business. The successor should also be taught how to avoid conflicts among family members, which can arise and can cause many problems. According to data from the field, 36% of the founders stated that, after inheriting the management of the business, the successor should work together with the founder to manage the business for at least two years. This shows the commitment of the founder to the family business and their desire to prepare the successor for leadership, to help preventing the failure during the transition. 28% of founders believes that they should manage the first 5 years together with the successor. There are also founders who think to manage the business along with successor to death, and they make up 24% of the respondents. But, there are also founders who think they will leave immediately after they transfer their business to the successor. They probably want to relax from daily responsibilities, because business leadership requires energy and commitment.

o) The willingness of the children to manage the business in the future. There are children who do not want to continue the business of their parents and want to pursue their own dreams. Maybe they do not want to be entrepreneurs but they want to be actors, singers or another profession that is not related to the family business. Regarding this issue, the thoughts of the

founders are different. From the survey, the data showed that 46% of the business founders think their children want to manage the family business one day. Around 14% of founders declares that their children do not like to manage the family business, but they do not have other choices. Taking over a business because there is no other choice can be dangerous and can lead to business failure. Often it is better that the heir goes to work somewhere else, and then return to the family business. He would benefit from experience outside the family business and will be informed about the strategies used by other businesses - potential competitors of his family business. Some respondents (32%) think that their successor firstly will work elsewhere and then return to the family business to contribute its development and growth. Around 8% of the respondents do not have information regarding this issue.

p) Succession process and conflicts. Very often the succession process is followed with conflictual situations. Perhaps each of the children wants to be the successor of the family business in the future, and this situation might cause different problems in the family (and business). Around 36% of business founders think that the process of succession in family business will pass without disputes, while 28% of respondents expect that the process of succession in their business will pass with some irrelevant, minor disputes. For 24% of the surveyed founders, jealousy and children's expectations might lead to major disputes and for 12% of the founders the succession process will be followed with huge problems. Every successful founder of a family business should have a plan for the succession process. Conflicts and disagreements is expected to be occurred, but is there a plan to solve them? Around 42% of the founders indicate that they have a plan how to solve the eventual conflicts and disagreements related to the succession, 28% of respondents are developing such a plan and 24% of the respondents actually do not have any plan for these issues. Some founders (6%) declared that they are able to solve the differences without any plan.

6. Recommendations for further research

In this research, efforts have been made to raise the awareness of the founders of family businesses in regards to the importance of succession planning and dealing with problems arising from this transformation. The findings of this research provide an overview of family businesses in Albania and succession issues in these businesses, viewed from the perspective of business founders. Therefore, we suggest in the future, similar research to be conducted from the children perspective in order to identify what are their opinions and attitudes regarding the succession and family businesses.

7. Conclusions

Succession can be defined as the process of transferring the management and ownership from one generation to the next one. The founders of businesses should start planning the succession process just in the beginning of their business. When children should get involved in the business, when to identify the successor and begin his training, and when the founder must retire and transfer business leadership to the successor are critical questions that must be answered by the founder of the business.

It is important for the successor to be 'equipped' with knowledge and experience before he begins running the business. The founder should probably play the role of mentor and transfer his knowledge and experience to the successor in order to prepare him better for all challenges and unexpected situations in the future. It could be helpful if the founder sometimes gives the opportunity to the successor to make a business decision for some issues which are not so important and cannot cause serious damages to the business. In this way he will learn about the decision-making process and will now how to act when will be faced with more complicated situation.

Expansion of the family can be good for the business, but in the same time this can create different problems. The wife/the husband of the founder, his children and grand-children may want and insist to join the family business, even though there may not be room for everyone. Therefore it is necessary to create a transparent process and to establish some criteria for those who want to get involved in the family business, especially for those who want to be in managerial positions.

References

1. Alderson, J. K. (2011). *Understanding the Family Business*. New York: Business Expert Press.
2. Bowman-Upton, N. B. (2009). *Transferring management in the family-owned business,* U.S. Small Business Administration.
3. Brockhaus, R.H. (2004). Family Business Succession: Suggestions for Future Research, *Family Business Review,* 17(2), 165–177
4. Carlock, R. S. & Ward, J. L. (2001). *Strategic Planning for the Family Business - Parallel Planning to Unify the Family and Business,* New York: Palgrave.
5. Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the Family Business by behavior. *Entrepreneurship:Theory and Practice,* 23 (4), 19-39
6. CIA World Factbook, (2012), *Albania: People*, US: Central Intelligence Agency.
7. Dana, L-P., & Ramadani, V. (Eds.). *Family Businesses in Transition Economies: Management, Succession and Internationalization,* Switzerland: Springer.
8. Dana, L-P. (2010), *When Economies Change Hands: A Survey of Entrepreneurship in the Emerging Markets of Europe from the Balkans to the Baltic States,* New York and Oxford: Routledge.
9. Di Lorenzo, F., (2013), *2013 Report: International Property Rights Index,* Washington: Americans for Tax Reform Foundation/Property Rights Alliance
10. Doing Business (2014), *Understanding Regulations for Small and Medium-Size Enterprises,* Washington: International Bank for Reconstruction and Development/The World Bank.
11. Dutta, S. (2011), *The Global Innovation Index 2011: Accelerating Growth and Development*, Fontainebleau: INSEAD/The business School for the World.
12. Dutta, S., Lanvin, B., and Wunsch-Vincent, S. (2014), *The Global Innovation Index 2014: The Human Factor in Innovation*, Fontainebleau: Cornell University.
13. Fattoum, S., & Fayolle, A. (2009), Generational Succession: Examples from Tunisian Family Firms, *Journal of Enterprising Culture*, 17 (2), 127–145
14. Fiti, T., and Ramadani, V. (2013), *Entrepreneurship*, Tetovo: Southeast European University (in Albanian language).
15. Gashi, G., & Ramadani, V. (2013), Family Businesses in Republic of Kosovo: Some General Issues in Ramadani, V., & Schneider, R. (Eds), *Entrepreneurship in the Balkans: Diversity, Support and Prospects*, Heidelberg: Springer.
16. Gersick, K.E., Davis, J.A., Hampton, M. M., & Lansberg, I. (1997). *Generations to Generations: Life Cycles of the Family Business*. Boston: Harvard Business School Press.
17. Giudice, M. D., Peruta D. M. R., & Elias G. C. (2011). *Knowledge and the Family Business: The Governance and Management of Family Firms in the New Knowledge Economy*, New York: Springer.
18. Hacker, J., & Dowling, M. (2012). Succession in Family Firms: How to Improve Family Satisfaction and Family Harmony, *Int. J. Entrepreneurship and Small Business*, 15(1), 76-99.

19. Handler, W. C. (1990). Succession in Family Firms: A Mutual Role Adjustment between Entrepreneur and Next-Generation Family Members, *Entrepreneurship Theory & Practice*, 15(1), 37–51.

20. Hess, E. D. (2006). *The Successful Family Business: A Proactive Plan for Managing the Family and the Business*, Westport: Praeger.

21. IFC. (2008). *Family Business Governance Handbook.* International Finance Corporation, Washington, DC.

22. INSTAT (2012), *Population and Housing Census 2011*, Tirana: Institute of Statistics of Albania.

23. Kellermanns, F.W., Eddleston, K.A., Barnett, T. & Pearson, A. (2008). An Exploratory Study of Family Member Characteristics And Involvement: Effects on Entrepreneurial Behavior in the Family Firm, *Family Business Review*, 21(1), 1–14.

24. KPMG (2014), Amendments to the Albanian Tax Legislation, Available at: http://www.kpmg.com/AL/en/IssuesAndInsights/ArticlesPublications/Newsletters/Tax/Documents/2014-01-Amendments-to-the-Albanian-Tax-Legislation.htm (Accessed: September 07, 2014)

25. Kuratko, D. K., & Hodgetts R. M. (2004). *Entrepreneurship: Theory, Process & Practice*, 6th Edition. United States of America: Thomson South-Western.

26. Laakkonen, A., Kansikas, J., & Valtonen, H. (2011). In search of family business continuity: the case of transgenerational family entrepreneurship, *International Journal of Entrepreneurship and Small Business*, 13 (2), 193 - 207

27. Lambrecht, J. (2005). Multigenerational transition in family business: A new explanatory model. *Family Business Review*, 18 (4), 267–282.

28. Molly, V., Laveren, E. & Deloof, M. (2010). Family Business Succession and its Impact on Financial Structure and Performance, *Family Business Review*, 23 (2), 131–147.

29. Poza, J. E. (2010). *Family Business*, 3rd Edition, Mason: Thomson South-Western.

30. Ramadani, V. (2013), Entrepreneurship and Small Business in Republic of Macedonia, *Strategic Change*, 22 (7/8), 485–501

31. Ramadani, V., & Hoy, F. (2015). Context and Uniqueness of Family Businesses. In Dana, L-P., & Ramadani, V. (Eds.). *Family Businesses in Transition Economies: Management, Succession and Internationalization*, pp. 9-37, Switzerland: Springer.

32. Ramadani, V., Fayolle, A., Gerguri-Rashiti, S. & Aliu, E. (2015). The Succession Issues in Family Firms: Insights from Macedonia. In Dana, L-P., & Ramadani, V. (Eds.). *Family Businesses in Transition Economies: Management, Succession and Internationalization*, pp. 199-221, Switzerland: Springer.

33. Ramadani, V., Gashi, G., Fiti, T., & Humolli, B. (2015). Family Businesses in the Trade Sector: An Examination of a Case Study from Kosovo. In Dana, L-P., & Ramadani, V. (Eds.). *Family Businesses in Transition Economies: Management, Succession and Internationalization*, pp. 319-329, Switzerland: Springer.

34. Ramona, K.Z., Hoy, F., Poutziouris, P.Z., & Steier, L.P. (2008). Emerging Paths of Family Entrepreneurship Research, *Journal of Small Business Management*, 46 (3), 317-330

35. Rexhepi, G. (2015). Entering New Markets: Strategies for Internationalization of Family Businesses. In Dana, L-P., & Ramadani, V. (Eds.). *Family Businesses in Transition Economies: Management, Succession and Internationalization*, pp. 293-303, Switzerland: Springer.

36. Rubenson, G., & Gupta, A. (1996). The Initial Succession: A Contingency Model of Founder Tenure, *Entrepreneurship: Theory and Practice*, 21 (2), 21-35

37. Sardeshnukh, S. R. & Corbett, A. C. (2011). The Duality of Internal and External Development of Successors: Opportunity Recognition in Family Firms, *Family Business Review*, 24 (2), 111-125

38. Scarborough, M.N. (2012). *Effective Small Business Management: An Entrepreneurial Approach*, 10th Edition, New Jersey: Prentice Hall.

39. Schwab, K., (2013), *The Global Competitiveness Report 2013–2014.* Geneva: World Economic Forum.

40. Smallbone, D., and Welter, F. (2001), The Distinctiveness of Entrepreneurship in Transition Economies, *Small Business Economics*, 16(4), pp 249-262.

41. Smallbone, D., and Welter, F. (2009), *Entrepreneurship and Small Business Development in Post-Socialist Economies*, London and New York: Routledge.

42. Strategic Designs for Learning. (2012), *The Use of Assessments for Succession Planning in Family Owned Businesses*, http://www.strategicdesigns.net/SDL_SuccessionPlanning_FamilyBusiness.pdf (Retrieved: 10 November 2012).

43. Transparence International (2014), *Transparency International Corruption Perceptions Index 2013*, Available at: http://www.ey.com/Publication/vwLUAssets/EY-Transparency-International-Corruption-Perceptions-Index-2013/$FILE/EY-Transparency-International-Corruption-Perceptions-Index-2013.pdf (accessed: August 26, 2014).

44. UN (2011), "World Directory of Minorities and Indigenous Peoples — Albania: Overview", Available at: http://www.refworld.org/docid/4954cdfe1a.html (Accessed: August 31, 2014)

45. Walsh, G. (2011), *Family Business Succession, Managing the All-Important, Family Component.* Canada: KPMG Enterprise.

46. Ward, J. L. (1987), *Keeping the Family Business Healthy: How to Plan for Continuing Growth, Profitability and Family Leadership*, San Francisco: Jossey – Bass Publishers.

RISK MANAGMENT IN SME FROM BANK PERSPECTIVE

Živko Igor, Ph.D.[119]
Gadžić Mila, Ph.D.[120]
Anela Čolak, M.Sc.[121]

Abstract

Environment in which SMEs operate become more dynamically and uncertainty. Reasons for that changing environment we find in continual changes in business operating environment, innovations, globalization and application IT in business activities. Risk management present system which helps enterprises to developed capacity to anticipate and prepare for changes whose can have negative effects on their business. SMEs in their business are faced with the problem of how to ensure funding for inadequate offer of financial products and services, regulatory rigidities or the existence of gaps in the legal framework, the inadequacy of information that banks and SMEs "asymmetric information", limited assets that can be used as collateral. Banks in transitional countries present most important source of financing SME sector. Aim of paper is give theoretical framework of enterprises risk management in SMEs and it role in business of SMEs sector with banks. Authors will analyse risk management in SME sector from bank perspective especially in making more available banks products and services to SMEs, managing banks risk in business with SME and bank supervision.

Key words: *SMEs, risk management, banks, problems in financing;*

[119] Faculty of Economics University of Mostar, e-mail: igor.zivko@sve-mo.ba

[120] Faculty of Economics University of Mostar, e-mail: mila.gadzic@sve-mo.ba

[121] Faculty of Economics University of Mostar, e-mail: anela.colak@sve-mo.ba

1. Introduction

SME sector play an important role in the economic development of each country. SMEs sector is positively correlated with creating new jobs and securing channels of regional development. According to estimation made by the OECD, SMEs as a form of business organization have share for 95-99% in the all forms of organization business in national economies. It also creates between 60-70% of the net new jobs in OECD countries (OECD, 2006). SME sector is recognized in professional and scientific literature as an instrument of competitiveness.

SMEs in their business are faced with the problem of how to ensure funding for inadequate offer of financial products and services, regulatory rigidities or the existence of gaps in the legal framework, the inadequacy of information that banks and SME "asymmetric information", limited assets that can be used as collateral. As the negative impact of the financial crisis, the problems of financing SMEs is being deepened especially with securing funding channels, reducing loans for investment, reducing working capital, and are more stringent lending conditions by banks. The reasons for this situation lies primarily in the poor economic outlook and the economy and the SME sector, stagnation interbank lending and rising equity prices (a spillover effect from the developed market in transition countries) and the constraints that represent the balance sheet positions of SMEs. SME sector is confronted with all these problems reported bankruptcy of many companies.

The paper analyzes theoretical framework of enterprises risk management in SMEs and it role in business of SMEs sector with banks. Authors will analyse risk management in SME sector from bank perspective especially in making more available banks products and services to SMEs, managing banks risk in business with SME and bank supervision.

2. Risk management in enterprises

Risk management presents system which has a task to identify and measure effects of risks in each enterprise. Risk is possibility of loss or potential of negative impact. Enterprises risk varies from business line, the nature of entity, political and economics issues and other factors. External factor which can effect on risk are economic changes, financial market developments, dangers arising from political, legal, technological and demographic environment, financial and economic crisis. Internal risk includes human error, fraud, system failure, disrupted production (Olson, Wu Dash, 2008, pp.). Development of enterprise risk management ensures understanding risks, recognised and prioritises significant risks. Risk management involve 7R and 4T (AIRMIC, Alarm, IRM, 2010, pp.):

- recognition or identification of risks
- ranking or evaluate risks
- respond to significant risk
    - tolerate
    - treat
    - transfer
    - terminate
- resourcing controls
- reaction planning
- report and monitoring risk performance
- review risk management framework

All these have for results improvements in efficiency in operations, effectiveness of tactics and strategy of enterprise. Also enterprises risk management has impact on internal control and audit and enhances corporate governance. Enterprise risk management contents eight components (Frigo, Andreson, 2011, pp.):

- internal environment
- objective settings
- event identification
- risk assessments
- risk responds
- control activities
- information and communication
- monitoring.

Key risk indicators help enterprises to identified degree of expose to risks in business activities. They indicate opportunities that could be used and actions to be taken in order to minimise negative effect of risks.

Key risk indicators must involve next elements to be good created:

- based on established practices or branchmark
- developed concisely across organization
- provide an unambiguous and innovative view of highlighted risk
- allow for measurable comparison across time and business unite
- provide opportunities t access to performance of risk owners on a timely base
- consume resources efficiency.

Financial risks	Accounting standards Interest rate Foreign exchange Availability of funds Credits
Infrastructure risk	Communication Transport links Supply chain Natural disasters Criminal
Marketplace risks	Economic environment Technological developments Competition Consumer demand Regulatory requirements
Reputational risk	Public perception Competitor behaviour Regulatory enforcement CSR

Table 1. Risks in enterprises

As can we see in table 1 there exist different types of risks with enterprises can be faced in their activities. So it is important to create and constantly make improvements in risk management. The enterprises risk management covers: entities risk appetite, risk responses and decisions, interconnected impacts and integrated responses on multiple risks. ERM employs the concept of economic capital - a statistical concept that measures risk, and it reflects the bank's estimate of the amount of capital needed to support its risk-taking activities. It is not the amount of regulatory capital held (Fraser, Simkins, 2010, pp. 343)

3. Problems of SME sector

According to a definition set by the Law on Stimulation of Small Economy Development in Federation of Bosnia and Herzegovina passed in the first half of 2006 (Low, 2006) according to which the small economy is made of subjects of small economy, natural and legal persons performing permanently activities allowed by the law for income generation or profit earning, including self-employment and family businesses linked to trades and crafts and other activities, registered before the competent body, disregarding a form of organization. Research provided with aim to identified problems in operating SMEs in the Herzegovina – Neretva Canton. Research results that enterprises using borrowed sources of financing, during founding of an enterprise, are using mostly banks as a source of borrowed capital, namely even almost 52% of them, and after that 16,67% of them used suppliers and private persons in almost 13% of them. In structure of borrowed capital used by enterprises for current operations or during new investments, banks are again dominant as source with almost 67%, after them leasing companies with 9,33% and microcredit organizations with 6,67% share (Klepić, Živko, Grbavac, 2007).

By analyzing problems making impossible or impeding access to sources of financing or making it impossible in adequate quantity and form or under favourable conditions, it has been established that numerous problems are as follows (Klepić, Grbavac, Čolak, 2008):

- high interests,
- high banking fees,
- complex procedures for processing a credit,
- time of processing a credit is long,
- banks are requesting many documentation,
- request for collateral are high for security of repayment of approved credit,
- lack of private capital,
- lack of precise and quality financial reports,
- lack of quality information,
- lack of knowledge and experience from financial management, as well as reluctance of enterprises' owners to accept new partners who would invest a fresh capital in an enterprise and get a part-ownership in return.

Research which was implemented by the ECB in 2013 shows various business problems SMEs among which dominates the problem of insurance markets, and limited access to financing (Figure 2).

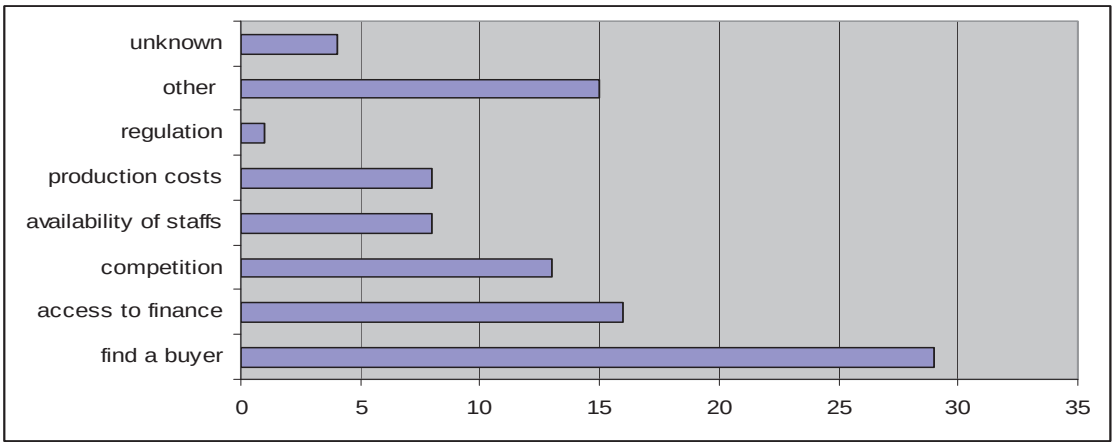


Figure 2 Problems in business SME in EU

Based on the experience of other countries, particularly the analysis of man-made measures in developed countries, it is possible to recommend some measures that could be solved some of the

problems of SMEs in developing and transitional countries. We can classified measures for improving liquidity, working capital and to promote the involvement of SME sector in the development of government policies and strategies.

Measures that can be taken to stimulate sales, cash flow and working capital on national level are:

- export aid (Austria, Czech Republic, Denmark, Germany, Italy, Luxembourg, Netherlands, Spain), the export guarantee funds
- deductions in payment of tax liabilities (Belgium, Netherlands, France, Italy, Denmark), the abolition of tax (abolition of tax on reinvested profit) tax reduction[122], differentiation of tax rates, tax refunds for exported goods, delayed payment of social benefits SMEs
- facilitate payment procedures (France, Netherlands, United Kingdom) and guarantee claims
- measures to shortening in payments to businesses and government
- depreciation (amortization of investment projects)
- factoring receivables
- encouraging research and development and innovation of products and services (environmental, IT, energy)

Measures that can be taken to facilitate access to sources of liquidity SME:

- the creation and expansion of credit and guarantee schemes (Austria, Belgium, Czech Republic, Finland, Germany, Great, Britain, France, Italy, Greece, Estonia, Romania, Slovenia)[123]
- risk-sharing funding with private creditors
- the introduction of credit mediators and monitoring (Belgium, France, Italy)[124]
- reorganization as a legal anti-crisis measures.

The state should modify the legislative regulations and restructure institutions of support to development of small enterprises, as well as adjust and harmonize their work, thus facilitating the access to sources of financing to small enterprise. By modifying the legislative regulations and creation of favourable political and entrepreneurship climate a spectrum of various sources of capital would be stimulated, increased and enlarged thus facilitating the access to sources of financing to small enterprises and the capital would be available to them in adequate quantity and form and under appropriate conditions.

4. Risk management in SME and banks

Problems faced by SMEs during the normal operations become more complex in the conditions of financial crisis. A particular problem is the securing of financing SMEs for their business and the creation of appropriate policies and instrument of assistance to the sector by the central and regional governments. Enterprises risk management is faced with challenges: improve efficiency, keep peace with business growth and complexity, managing change.

Risk management in SMEs sector have task to:

[122] Japan decreased tax rate for SMEs from 22% to 18%.
[123] France guarantees 90% of loans, the UK and Korea 100%, Japan 80%.
[124] Credit mediator (mediator) monitors SME sector lending by banks through timely reporting and established rules of behavior of banks in lending to the SME sector. The mediator helps get rid of the problems that arise in the relationship between companies and banks.

- developed risk strategy (risk policy, risk limits, balance sheet management, liquidity management, funding management)
- risk communication
- risk assessment and evaluation
- risk operation (loan administration, collateral management)
- risk management
- risk governance
- compliance (meeting regulatory requirements, integration of economic, regulatory and accounting perspective)

So enterprises risk management can help banks to improve their relationship with enterprises:

- credit underwriting/transaction approval
- market/transaction counterparts risk approval
- investment/hedging decision
    - target costumers
    - scoring/rating
    - pricing/structuring
    - credit decision
    - credit process design

Successful ERM implementation leads to better corporate governance process, decreases and control the overall cost of risk management, reduces bank's overall bank's risk profile, helps better capital allocation commensurate to the banks overall risk exposure and substantial increase in the stakeholders and regulators confidence in bank's activities.

The state should modify the legislative regulations and restructure institutions of support development of SME trying finding ways to facilitating the access to sources of financing SME and continuously reviewed SMEs needs for financing and coordinating government measure. To ensure long-standing financial environment for SMEs it is important to on enterprise level:

- encourage banking competition across economies and enhanced "relationship banking" (lending based on specificities of clients) through establishing of a Code of Conduct for Business lending to SMEs (Ireland established lending targets for banks)
- using other sources of financing included direct loans, micro loans, export guarantees
- support risk capital (equity) in form of co-financing or tax credits for investors
- finding solution for financing micro-enterprises.

5. Conclusion

Enterprises risk management present system in which enterprises shows their views on risks and approach in risks managing. Enterprises risk management must be in process of constantly improvement. Effective enterprises risks management must identified all business risks using all available process. The benefits of risk management are: reducing earnings volatility, maximize shareholder value, ensure financial securities. Under financial crisis SME sector worldwide is faced with problem of losing market and ensuring financial sources. So risk management in SME is faced with primarily financial risk and operating risk.

The paper contains framework of enterprises risk management, different measure record worldwide in purpose to ensure business operation of SME divided in two groups: measures on national level (government) and on enterprise level. The paper analyses relation between enterprises risk management and bank as major sources of financing SME. The paper contains measures of

improving liquidity, working capital to promote the involvement of SME sector in the development of government policies and strategies.

Reference

1. AIRMIC, Alarm, IRM, (2010) *Structured Approach to Enterprises Risk Management (ERM) and the Requirments of ISO 31000*, pp. 6.
2. ECB. (2010). *Survey on the Access to finance of small and medium-sized enterprises in the euro area: second half of 2009*, Frankfurt am Main, Germany.
3. ECB. (2011). *Survey on the Access to Finance of SME in the EU: September 2010 - February 2011*, Frankfurt am Main, Germany.
4. ECB. (2013). *Survey on the Access to Finance of SME in the EU: October 2012 - March 2013*, Frankfurt am Main, Germany.
5. Law on Stimulation of Small Economy Development, *Official Gazette Federation of Bosnia and Herzegovina*, No. 19/06.
6. Klepić, Z., Živko, I., Grbavac, J. (2007). Source of Financing Small Enterprise: A Case of Federation Bosnia and Herzegovina, *4th International Conference Global Challenges for Competitiveness: Business and Government Perspective*, Pula, Croatia.
7. Klepić, Z., Grbavac, J., Čolak, A. (2008). Financing SME Enterprises in Bosnia and Herzegovina: Microcredit in Bosnia and Herzegovina, *Journal of International Research Publication: Economy and Business*, Vol. 3.
8. Fraser, J., Simkins, B. J., (2010) *Enterprises risk management: today's lending research and best practice for tomorrow's executives*, New Jersy. John Wiley & Sons.
9. OECD. (2006). *Financing SME and Entrepreneurs*, Paris,
10. OECD. (2009) *The Impact of the Global Crisis on SME and Enterpreneurship Financing and Policy Responses*, pp. 7-9.
11. Olson, D. L., Wu Dash, D. (2008). *Enterprises Risk Management*, World Scientific Publishing Co. Pte. Ltd. Singapore, pp. 5.
12. Visinescu, S., Micuda, D. (2010). Challenges Faced by EU SMEs in the Context of the Global Economic Crisis, *Romania Economic and Business Review*, Vol. 4, No. 2.

SME INNOVATIONS AND PERFORMANCE: THE MEDIATING ROLE OF PRODUCT INNOVATION

*Prof Zhelyu Vladimirov**

Abstract

The innovation management literature shows mixt results in respect to the "innovation-performance" relationships. Some findings indicate that product improvements contribute to the higher performance, while other studies found that process improvements seem to be not related to the SME profitability. The uncertainty of these results might be due to different contributions of different types of innovations to performance, as well as to the interaction of types of innovations. The goal of this study is to investigate the mediating role of product innovations in the SME "innovations-performance" relationship. Based on data of 500 manufacturing SME from Bulgaria the following research questions have been raised:

1. What are the "innovations-performance" relationships in the manufacturing SME?

2. Does the product innovation mediate the effects of process innovations and other factors on performance?

To answer these questions the exploratory factor analysis was run, which resulted in seven factors. Based on these constructs a path model with the mediating role of product innovations between process innovations and other external and internal factors on performance has been tested.

The results show that all hypotheses about direct effects of process innovations and other factors on both product innovation and performance are supported, except for direct impact of technological innovations (e-integration of processes) on product innovations. It was found that the R&D has the highest direct and positive effects on product innovations, followed by the firm export orientation, commitment to learning, and access to information. Access to finance and marketing innovations impact also positively and significantly product innovations, although not so strongly. The firm size influences significantly, but negatively product innovations, which suggest that smaller firms in this sample are more innovative.

The product innovations is the only innovation factor which impacts directly and positively the SME performance, while other process innovations and external factors have positive and significant, but indirect influence on performance. Therefore product innovations proved to mediate fully the effects of process innovations and external factors on performance. These innovations and factors contribute only indirectly (through product innovations) to the SME performance. At the same time product innovations mediate partially the effects of the firm size and export orientation on performance. The last two factors have also the strongest total effects on performance, which means that the firm resources and export capabilities are more important for performance than innovations.

The implications of these results for managers are that before introducing new products, they need to take into account the respective process requirements. These requirements assume certain costs, which do not translate directly in better performance. Some of the process changes can contribute to the higher performance through the success of the new or improved products. Therefore the SME need to introduce a bundle of different types of innovations over time.

Key words: *SME, types of innovations, mediation, performance*

* University of Sofia *St Kliment Ohridski*
Faculty of Economics and Business
Email: jeve@feb.uni-sofia.bg

Introduction

The studies have shown that the innovations could allow small firms to acquire competitive advantages and to improve their performance (Roberts, 1999). Some arguments on innovations underlined the advantages of small firms, while other arguments favoured large enterprises (Hong *et al*., 2012, p. 424). The SMEs advantages refer to higher degree of flexibility, simple organizational structure, closer perception of consumers' needs, etc. Nevertheless the SME sector, particularly in the transition and emergent economies, still suffers of innovation deficit (O'Regan et al., 2005).

The innovation refers not only to the new products and technologies, it includes also changes in organisational processes, management, marketing, etc. (OECD, 2005, p. 47). The reviews of the "innovation-performance" research describe the evidences as "mixed", "inconclusive", and "contradictory" (Rosenbusch et al., 2011, p. 442). Some findings indicated that *product* improvements are positively associated with firm growth (Rubera and Kirca, 2012), while other studies found that *process* improvements seem to be not related to SME profitability (Pett and Wolff, 2009). The uncertainty of these results requires more detailed study of the interdependence of types of innovations.

The present paper aims at contributing to this gap by investigating the mediating role of product innovation in the SME "innovations-performance" relationship. Based on data of 500 manufacturing SME from Bulgaria the study is guided by the following research questions:

1. What are the "innovations-performance" relationships in the manufacturing SME?
2. Does the product innovation mediate the effects of process innovations and other factors on performance?

To answer these questions the exploratory factor analysis was run, which resulted in seven factors. Based on these constructs a model of "innovations-performance" relationships with the mediating role of product innovation has been tested. The main findings reveal that product innovation impacts directly and significantly performance. The process innovations contribute to the SME performance indirectly (through product innovation), while others factors have both direct and indirect influences on performance.

The study is organized as follow: next is the literature review, followed by research methodology, main results and discussion, and conclusion.

Literature review

Many innovation studies have been devoted to the determinants and barriers of the new products development, mainly from the manufacturing sector (Hervas-Oliver et al., 2014). These antecedents and determinants originate from two groups of factors (internal and external to the firm), which reflect two major theories – the resource based view, including dynamic based view, and the industrial organisation theory. If the internal determinants refer to the firm resources and entrepreneurial/managerial orientations, the external ones relate to the business and institutional environment.

The majority of empirical researches on the "innovation-performance" relationship revealed positive relations (Branzei and Vertinsky, 2006), although other research showed negative or a lack of such relations (Lin and Chen, 2007). The uncertainty of the "innovation-performance" results may be due to: (1) different contributions of different types of innovations to performance; and (2) more complex relationships among types of innovations and their effects on performance.

Different effects of types of innovations on performance

The first point concerns the ways that different types of innovations influence the firm performance. For example the product innovations are expected to contribute directly and positively to the firm performance, while the process innovations may influence the performance more indirectly (Roper, 1999; Cabagnols and Bas, 2002). Other studies have shown, however, that *process* innovations may be an important source of firm performance (Keupp et al., 2012, p. 377). These controversial results may be explained by different effects of product and process innovations on performance. The research of Leipoen (2000, p. 20) indicated that there are differences in the determinants of profitability of product vs. process innovators. Simonetti et al., (1995) showed that product innovations are related most often to the new markets creation, while process innovations are intended to decrease unit costs. Other studies also underlined the cost saving effects of process innovations along with other benefits (He and Wong, 2004).

In difference to the cost saving innovations, other process innovations can contribute to the firm performance indirectly through the success of product innovations. This leads to the second point concerning the interaction of types of innovations.

Interaction of types of innovations and mediating role of product innovations

The research and theory suggest that there is a general degree of association or complementarity between different types of innovations (Reichstein and Salter, 2006, p. 658). Some studies demonstrated that there is a strong interdependence between *product* and *process innovations* (Damanpour and Gopalakrishnan, 2001). According to Fritsch and Meschede (2001, p. 345) the implementation of a product innovation can make corresponding process innovation necessary, while the process innovation in turn may enable a firm to improve the quality of its products or to produce completely new products. If some process innovations provide support to the product innovations, it seems that in these cases product innovations *mediate* the effects of these process innovations on firm performance.

There are no many studies about the mediation role of innovations on performance. The review of Crossan and Apaydin (2010, p. 1176) showed that empirical studies have used either innovation outcomes or performance as a dependent variable. In contrast, including both of these in a model would reveal the role of innovation outcomes as a mediator between innovation determinants and firm performance.

We do not imply that the innovations are the only means to achieve higher performance. Other internal and external to the firm factors may have their own direct influences on performance.

Conceptual model, hypotheses, and sample characteristics

Based on the literature review the following conceptual model with the mediating role of product innovations between process innovations and performance is proposed (Fig.1). The process innovations are manifested by commitment to learning, R&D activities, technological (e-integration of processes) and marketing innovations. The model contains also two external (access to information and access to finance) and two internal factors (firm size and export orientation). The direct and indirect effects of process innovations and other factors on both product innovation and performance are reflected by three groups of hypotheses. The first group contains eight hypotheses (**H1-H6, H8, and H9**) about *direct and positive effects* of process innovations, external and internal factors on product innovation. The second group refers to the *indirect positive effects* (through product innovation) of process innovations and other factors on performance (**H1a-H6a, H8a, and**

H9a). The third group includes three hypotheses about *direct and positive effects* of product innovation (**H7**), firm export orientation (**H10**), and firm size (**H11**) on performance.

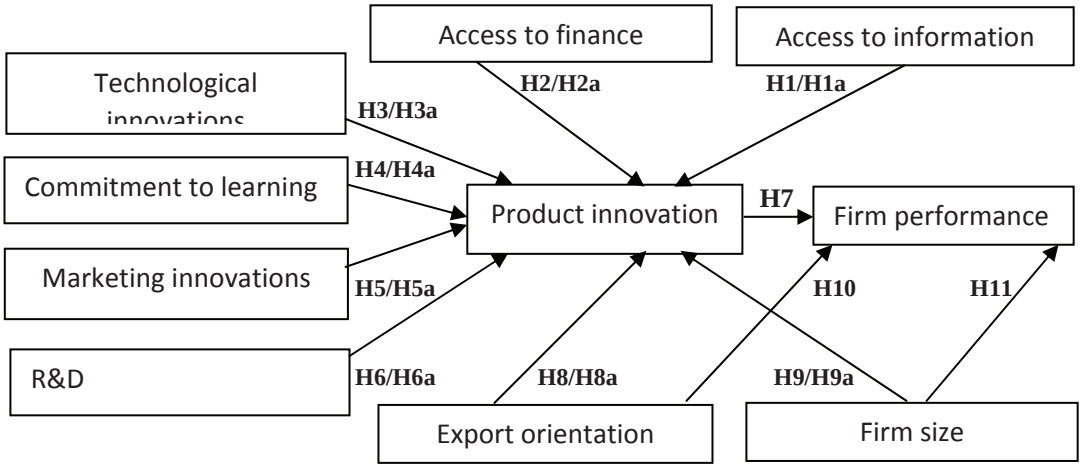


Fig. 1. Conceptual model of the mediating role of product innovation

The data were obtained from a larger questionnaire, which was developed to identify the factors for the manufacturing SME performance in Bulgaria. The sample covered 500 SMEs from 18 manufacturing activities. It included 195 microenterprises (39% of all); 202 small (40.4%); and 103 medium size enterprises (20.6%). The field data were gathered by a professional vendor agency Noema in February and March 2013. The data were processes on the SPSS 20 and Amos.

Results and discussion

Results of exploratory factor analysis

We run an exploratory factor analysis (EFA) with a Varimax rotation. The correlation matrix shows that there are sufficient numbers of correlations greater than 0.30, which allows for running the factor analysis (Appendix A, Table A.1). The determinant value is 0.006 which implies that there is no linear dependence in the correlation matrix. The KMO measure of sampling adequacy is 0.757, DF = 190, Approx. Chi-Square = 2533.282, and Sig. = 0.000 (Appendix A, Table A.2). The EFA provided seven factors (Appendix A, Table A.3).

The first factor reveals the awareness of small firms' managers that their staff needs training in different fields such as IT, foreign languages, management, marketing, sales, and export. In practice it reflects the first component of learning orientation, which is COMMITMENT TO LEARNING. The second factor is PRODUCT INNOVATION, which refers to the release of a new product or an improved version of product; new product development to be release soon on the market; and the intentions to develop new products next years. It relates not only to the recent product innovations, but more generally to the commitment and *continuity* of the product innovation activities. MARKETING INNOVATIONS shape the third factor. The fourth factor relates to the ACCESS TO INFORMATION about national and international programmes in support to business, good management practices, and international markets and partners. ACCESS TO FINANCE forms the fifth factor. The sixth factor refers to TECHNOLOGICAL INNOVATIONS in terms of adopting the advanced IT applications – e-management of relations with customer (CRM) and e-integration of processes (ERP). The seventh factors reflects the R&D activities and includes the presence of an own R&D unit and employees with R&D tasks. The PERFORMANCE was measured by perceptual changes of four indicators in the last year: number of staff; revenues; profits; and market share.

Results of path analysis

For the purpose of path analysis, each factor was transformed into a new single composite measure, representing an average of its constitutive items (Hair et al., 2010, p. 124). The same procedure was applied to the PERFORMANCE measures. These construct have been used in a model of "innovations-performance" relationships with the mediating role of product innovation.

The model's goodness of fit was assessed through the maximum likelihood method. The value of χ^2 is 7.505 with DF=6, the ratio $\chi 2/df$ = 1.251, and the probability level p = 0.277. The goodness of fit indices are respectively: GFI = 0.997, RMR = 0.003, NFI = 0.990, IFI = 0.998, TLI = 0.984, CFI = 0.998, RMSEA = 0.022 (with LO 90 = 0.000 and HI 90 = 0.065), and PCLOSE less than 1 (0.823). The acceptable level of goodness of fit indices allows for analysing the path structure among types of innovations and their effects on performance. The standardized regression weights of direct effects are presented in Table 1.

Table 1. Standardized regression weights of direct effects

			Estimate	Hypotheses
F4_Access to information	→	F2_Product innovations	.104**	H1 - supported
F5_Access to finance	→	F2_Product innovations	.088**	H2 - supported
F6_Technological innovations	→	F2_Product innovations	.067 (n.s.)	*H3 - non supported*
F1_Commitment to learning	→	F2_Product innovations	.193***	H4 - supported
F3_Marketing innovations	→	F2_Product innovations	.090**	H5 - supported
F7_R&D	→	F2_Product innovations	.303***	H6 - supported
A14_Export orientation	→	F2_Product innovations	.204***	H8 - supported
B7_Size	→	F2_Product innovations	-.153***	*H9 - partially supported*
F2_Product innovations	→	P1_Performance	.171***	H7 - supported
A14_Export orientation	→	P1_Performance	.201***	H10 - supported
B7_Size	→	P1_Performance	.209***	H11- supported

The results show that all hypotheses about *direct* and positive effects of process innovations and other factors on both product innovation and performance are supported, except for direct impact of technological innovations on product innovations (H3). The firm size has a significant, but negative influence on product innovations. The model explains about 29% of the variance of product innovations and 18% of the variance of performance.

Direct effects on product innovations

The R&D activities are particularly important as they have the strongest direct and positive impact on product innovations (0.303***). Other studies also demonstrated the role of R&D as helping companies to create, exploit and transform the acquired knowledge into new products (Keizer et al., 2002). The firm export orientation is the second significant factor, which influences positively product innovations (0.204***). According to Cassiman and Veugelers (2006, p. 74) more export-oriented firms are also more innovation productive, presumably because of the more competitive environment they face. Although the commitment to learning represents only one component of the learning orientation construct, it appears as the third important factor for higher product innovations (0.193***). This can be explained by the observation of Calantone et al. (2002, p. 516) that the more an organization values learning, the more likely it is that learning will occur.

The firm size impact significantly and negatively product innovations, which suggest that smaller firms in this sample appeared to be more innovative (-0.153***). Some research demonstrated highly significant and positive effects of firm size on all measures of innovation outputs (Santamaria et al. 2009, p. 512), while other studies found a negative relationship, a U-shaped curve, and a hump-shaped curve (Bertschek and Entorf, 1996, p. 415). These results are due

to the influence of other (mainly external) factors on the innovation-firm size relationship (Damanpour and Wischnevsky, 2006, p. 277).

Access to information is the fifth important factor influencing directly and positively product innovativeness (0.104**). De Jong and Vermeulen (2006) also found that the use of external information sources increases the small firm's knowledge and contributes to the successful innovation. Marketing innovations affect directly and positively product innovations, although not so strongly (0.090**). In general, good marketing strategies contributes to commercial success, and even to the exporting of new products/processes, thereby encouraging firms to innovate more (Baldwin and Johnson, 1996, p. 796). Access to bank financing has also a direct and positive influence on product innovations, which is however not so high (0.084**). According to Beneito (2003) financial autonomy increases the probability of doing in-house R&D and of generating innovations.

Technological innovations (e-integration) appears as the factor, which has positive, but not significant impact on product innovations (0.067). The adoption of new technology and particularly the advanced IT applications improve mainly the firm productivity by reducing the cost, which explains its weak influence on product innovations.

Mediating role of product innovations

The product innovations are the only innovation factor which impacts *directly* and positively performance (0.171***). Some studies found that product innovation influences more directly performance, while other research revealed the underpinning effect of process innovation for successful product launches (Bowen et al., 2010, p. 1181).

Although the Amos of the SPSS can display direct, indirect, and total effects (Appendix A, Tables A.4), it does not provide automatically the significance of indirect effects. These significances can be found by using bootstrap estimates, standard errors, and confidence intervals. Table 3 shows that all of the indirect effects of process innovations and other factors on performance, are statistically significant.

Table 2. Multiple indirect effects: (All - Defaut model)

Parameter		Estimate	SE	Mean	Lower	Upper	P
Estimand 1	H1*H7 = **H1a** - supported	.028	.013	.028	.008	.053	.028
Estimand 2	H2*H7 = **H2a** - supported	.026	.016	.027	.007	.065	.010
Estimand 3	H3*H7 = **H3a** - supported	.022	.013	.021	.005	.049	.033
Estimand 4	H4*H7 = **H4a** - supported	.057	.018	.057	.031	.091	.007
Estimand 5	H5*H7 = **H5a** - supported	.033	.019	.032	.008	.073	.028
Estimand 6	H6*H7 = **H6a** - supported	.088	.025	.087	.049	.132	.008
Estimand 7	H8*H7 = **H8a** - supported	.043	.014	.043	.023	.070	.009
Estimand 8	H9*H7 = **H9a** - partially supported	-.012	.005	-.012	-.022	-.005	.010

The findings reveal that product innovations *mediate fully* the effects of process innovations and external factors. These innovations and factors contribute positively and significantly, but *indirectly* (through product innovations) to the SME performance.

Damanpour and Gopalakrishnan (2001, p. 48) also considered that product and process innovations have different performance impacts. According to Piening and Salge (2015, p. 84) process innovations are intermediate outcomes to achieve higher-level performance, rather than being a goal in itself. Walker (2006, p. 314) maintained that process innovations do not produce *directly* products or render services, but indirectly influence their introduction. Oke (2007) argued that the improvement of the processes is a driving force for the success of the product/or service

innovation. Tang and Murphy (2012, p. 54) revealed that technological innovations cannot influence firm performance until the ideas have been introduced to the market, e.g. through the new products/services.

These results are in line with few studies, which investigated the interdependence of types of innovations. For example Gunday et al. (2011, p. 671) found that process innovations influence innovative performance through product innovation, while organizational and marketing innovations have both direct and indirect (through product innovation) effects on innovative performance.

The data show that product innovations *mediate partially* the effects of two internal factors (firm export orientation and firm size) on performance. These factors have both significant direct (respectively 0.201*** and 0.209***) and indirect effects (respectively 0.043** and -0.012**) on performance. The firm size influences directly and positively performance, while it has significant, but negative indirect effects on performance. It is due to the negative impact of the size on product innovations. The two factors have also the greatest total effects on performance (respectively 0.183*** and 0.236***) (Appendix A, Table A.4).

Conclusion

The goal of this study was to investigate the mediating role of product innovations in the SME "innovations-performance" relationship. It was found that the R&D has the highest direct and positive effects on product innovations, followed by the firm export orientation, commitment to learning, and access to information. Access to finance and marketing innovations impact also positively and significantly product innovations, although not very strongly. The firm size influences significantly, but negatively product innovations, which suggest that smaller firms in this sample are more likely to be innovative.

The product innovations is the only factor which impacts directly and positively the SME performance, while other process innovations and external factors have positive and significant, but indirect influence on performance. Therefore product innovations turned to *mediate fully* the effects of process innovations and external factors on performance. At the same time product innovations *mediate partially* the effects of the firm size and export orientation on performance. The last two factors have also the strongest total effects on performance, which means that the firm resources and export capabilities are more important for performance than innovations.

The *implications* of these results for managers are that before introducing new products, they need to take into account the respective process requirements. The positive indirect effects of process innovations suggest that arriving at a successful product innovation requires significant preparatory work, which includes changes in organisational, technological, and marketing processes. All these changes assume certain costs, which do not translate directly in better performance. These activities can contribute to the performance through the success of the new or improved products.

The *limitations* of this research are related, first, to the subjective evaluations of innovations and performance by interviewed managers; second, to the responses of only one manager in each SME; and third, to the cross-sectional data 18 manufacturing sub-sectors, which prevents inferences about cause and effects. These limitations call for more research, which take into account specific sub-sectors, more detailed size groups, and the effects of more environmental factors on the SMEs innovativeness and performance.

Literature:

1. Baldwin, J.R. and Johnson, J. (1996). Business strategies in more- and less innovative firms in Canada. *Research Policy*. 25, pp. 785-804.
2. Beneito, P. (2003). Choosing among alternative technological strategies: an empirical analysis of formal sources of innovation. *Research Policy*. 32, pp. 693-713.
3. Bertschek, I. and Entorf, H. (1996). On nonparametric estimation of the Schumpeterian link between innovation and firm size: evidence from Belgium, France, and Germany. *Empirical Economics*. 21, pp. 401-426.
4. Bowen, F. E., Rostami, M., and Steel, P. (2010). Timing is everything: A meta-analysis of the relationships between organizational performance and innovation. *Journal of Business Research*. 63(11), pp. 1179-1185.
5. Branzei, O. and Vertinsky, I. (2006) Strategic pathways to product innovation capabilities in SMEs. *Journal of Business Venturing*. 21, pp. 75-105.
6. Cabagnols, A. and Bas, C.L. (2002). Differences in the determinants of product and process innovations: The French case. In A. Kleinknecht, and P. Mohnen (Eds.), *Innovation and Firm Performance: Econometric Explorations of Survey Data* (pp. 112-149). New York: Palgrave.
7. Calantone, R. J., Cavusgil, S. T., and Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*. 31, pp. 515–524.
8. Cassiman, B., and Veugelers, R. (2006). In search of complementarity in innovation strategy: Internal R&D and external knowledge acquisition. *Management Science*. 52(1), pp. 68-82.

   Crossan, M.M. and Apaydin, M. (2010). A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature. *Journal of Management Studies*. 47(6), pp. 1154-1191.
10. Damanpour, F. and Gopalakrishnan. (2001). The Dynamics of the Adoption of Product and Process Innovations in Organizations. *Journal of Management Studies*. 38(1), pp. 45-65.
11. Damanpour, F. and Wischnevsky, J.D. (2006). Research on innovation in organizations: distinguishing innovation-generating from innovation-adopting organizations. *Journal of Engineering and Technology Management*. 23 (4), pp. 269-291.
12. De Jong, J.P.J. and Vermeulen, P.A.M. (2006). Determinants of product innovation in small firms: A comparison across industries. *International Small Business Journal*. 4(6), pp. 587-609.
13. Fritsch, M. and Meschede, M. (2001) .Product Innovation, Process Innovation, and Size. *Review of Industrial Organization*. 19(3), pp. 335-50.
14. Gunday, G., Ulusoy, G., Kilic, K., and Alpkan, L. (2011). Effects of innovation types on firm performance. *International Journal of Production Economics*. 133(2), pp. 662-676.
15. Hair, J. F. Jr., William, C.B., Barry, J. B., and Anderson, R. E. (2010). *Multivariate data analysis. A Global Perspective* (7th Ed.). Upper Saddle River, NJ: Pearson Prentice HallTM.
16. He, Z.-L. and Wong, P.-K. (2004). Exploration vs. exploitation: an empirical test of the ambidexterity hypothesis. *Organization Science*. 15(4), pp. 481-494.
17. Hervas-Oliver, J.L., Sempere-Ripoll, F., and Boronat-Moll, C. (2014). Process innovation strategy in SMEs, organizational innovation and performance: a misleading debate? *Small Business Economics*. 43(4), pp. 873-886.
18. Hong, S., Oxley, L., and McCann, Ph. (2012). A Survey of the Innovation Surveys. *Journal of Economic Surveys*. 26(3), pp. 420-444.
19. Keizer, J.A., Dijkstra, L., and Halman, J.I.M. (2002). Explaining innovative efforts of SMEs: An exploratory survey among SMEs in the mechanical and electrical engineering sector in The Netherlands. *Technovation*. 22(1), pp. 1-13.

20. Keupp, M., Palmié, M., and Gassmann, O. (2012). The strategic management of innovation: A systematic review and paths for future research. *International Journal of Management Reviews*. 14(4), pp. 367-390.
21. Leiponen, A. (2000). Competencies, innovation and profitability of firms. *Economics of Innovation and New Technology*. 9, pp. 1-24.
22. Lin, C.Y. and Chen, M.Y. (2007). Does innovation lead to performance? An empirical study of SMEs in Taiwan. *Management Research News*. 30(2), pp. 115-132.
23. O'Regan, N., Ghobadian, A., and Sims, M. (2005). Fast tracking innovation in manufacturing SMEs. *Technovation*. 26(2), pp. 251-261.
24. OECD/Eurostat. (2005) Oslo Manual. Guidelines for collecting and interpreting innovation data (3d ed.), available at: http://www.oecd-ilibrary.org/science-and-technology/oslo-manual_9789264013100-en, (accessed 03.04.2014).
25. Oke, A. (2007). Innovation types and innovation management practices in service companies. *International Journal of Operations and Production Management*. 6, pp. 564-587.
26. Pett, T.L. and Wolff, J.A. (2009). SME opportunity for growth or profit: what is the role of product and process improvement? *International Journal of Entrepreneurial Venturing*. 1(1), pp. 5-21.
27. Piening, E.P. and Salge, T.O. (2015). Understanding the Antecedents, Contingencies, and Performance Implications of Process Innovation: A Dynamic Capabilities Perspective. *Journal of Product Innovation Management*. 32(1), pp. 80-97.
28. Reichstein, T. and Salter, A. (2006). Investigating the sources of process innovation among UK manufacturing firms. *Industrial and Corporate Change*. 15(4), pp. 653-682.
29. Roberts, P. (1999) Product Innovation, Product-Market Competition, and Persistent Profitability in the U.S. Pharmaceutical Industry. *Strategic Management Journal*. 20(7), pp. 655-670.
30. Rosenbusch, N., Brinckmann, J., and Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*. 26(4), pp. 441-457.
31. Rubera, G. and Kirca, A.H. (2012). Firm Innovativeness and its Performance Outcomes: A Meta-Analytic Review and Theoretical Integration. *Journal of Marketing*. 76(3), pp. 130-147.
32. Santamaria, L., Nieto, M.J., and Barge-Gil, A. (2009). Beyond formal R&D: taking advantage of other sources of innovation in low- and medium-technology industries. *Research Policy*. 38(3), 507-517.
33. Simonetti, R., Archibugi, D., and Evangelista, R. (1995). Product and process innovation: How are they defined? How are they quantified? *Scientometrics*. 32(1), pp. 77-89.
34. Tang, J. and Murphy, P.J. (2012). Prior Knowledge and New Product and Service Introductions by Entrepreneurial Firms: The Mediating Role of Technological Innovation. *Journal of Small Business Management*. 50(1), pp. 41-62.
35. Walker, R.M. (2006). Innovation Type and Diffusion: an Empirical Analysis of Local Government. *Public Administration*. 84(2), pp. 311-335.

Appendix A. Tables

Table A.1 Correlation Matrix [a]

	A2_3	A2_4	A2_5	A3_1	A3_2	A3_4	A8_1	A8_2	A8_3	A9_1	A9_2	A26_1	A26_3	A30_2	A30_3	A30_4	A30_5	A31_4	A31_5	A31_6
A2_3	1.000	.499	.374	.060	.115	.106	.099	.103	.112	.036	.040	.066	.040	.094	-.015	.068	.063	.155	.137	.086
A2_4		1.000	.460	.074	.061	.102	.104	.131	.136	.075	.105	.148	.088	.074	-.018	.089	.069	.174	.204	.084
A2_5			1.000	.000	.092	.105	.132	.159	.160	.097	.156	.140	.012	-.060	-.073	-.024	-.016	.219	.198	.251
A3_1				1.000	.428	.318	.063	.118	.102	-.012	-.013	.165	.084	.163	.096	.144	.149	.047	.073	.031
A3_2					1.000	.443	.113	.117	.123	.043	.026	.170	.117	.020	.008	.022	.068	.097	.141	.159
A3_4						1.000	.136	.131	.092	.103	.126	.154	.088	.105	.016	.127	.134	.056	.099	.071
A8_1							1.000	.584	.493	.302	.288	.154	.179	.176	.136	.114	.225	.185	.198	.139
A8_2								1.000	.569	.279	.278	.165	.211	.184	.200	.076	.155	.152	.157	.087
A8_3									1.000	.295	.278	.122	.144	.221	.175	.136	.180	.159	.154	.055
A9_1										1.000	.447	.126	.166	.049	.021	.073	.109	.182	.208	.183
A9_2											1.000	.144	.122	.038	.040	.084	.111	.166	.182	.147
A26_1												1.000	.485	.149	.129	.124	.163	.259	.244	.126
A26_3													1.000	.077	.144	.083	.121	.206	.169	.114
A30_2														1.000	.541	.393	.396	.086	.103	.008
A30_3															1.000	.391	.379	.112	.110	.064
A30_4																1.000	.591	.140	.192	.093
A30_5																	1.000	.182	.177	.041
A31_4																		1.000	.618	.367
A31_5																			1.000	.413
A31_6																				1.000

a. Determinant = .006

Table A.2 KMO and Bartlett's Test [a]

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,757
Bartlett's Test of Sphericity	Approx. Chi-Square	2533,282
	df	190
	Sig.	,000

a. Based on correlations

Table A.3 Rotated Component Matrix [a]

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
Cronbach's Alpha	.764	.785	.727	.706	.664	.653	.617
A30_4. The firm staff needs trainings in IT	.796						
A30_5. The firm staff needs trainings in foreign languages	.766						
A30_2. The firm staff needs trainings in management, marketing and sales	.732						
A30_3. The firm staff needs trainings in export	.706						
A8_2. The firm is going to develop a new product to be released soon on the market		.839					
A8_3. The firm intends to develop new products in the next years		.781					
A8_1. Last year the firm has released a new product (or an improve version of the existing product)		.756					
A31_5. Last year the firm has conducted a marketing survey			.803				
A31_4. The firm has an innovative marketing strategy			.781				
A31_6. Last year the firm has surveyed foreign markets for eventual positioning			.742				
A2_4. We have an access to information about good management practices				.833			
A2_3. We have an access to information about national and international programmes in support to business				.794			
A2_5. We have an access to information about international markets and potential partners				.705			
A3_2. Last year the firm has used a bank credit for working capital					.812		
A3_4. Last year the firm has used an overdraft on current account					.745		
A3_1. Last year the firm has used a bank credit for investments					.725		
A26_3. The firm has an enterprise resource planning system (ERP)						.851	
A26_1. The firm has a customer management system (CMS)						.812	
A9_2. The firm has employees with R&D tasks							.789
A9_1. The firm has an own R&D unit							.754
Eigenvalues	4.036	2.157	1.771	1.620	1.499	1.175	1.000
Percent of Variance	20.181	10.787	8.853	8.101	7.494	5.874	4.999
Total Variance explained	66.289						

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table A.4 Standardized Direct, Indirect, and Total Effects (Group number 1 - Default model)

	A14	B6	F7	F3	F6	F1	F5	F4	F2
F2_Product									
- Direct	.204	-.153	.303	.090	.067	.193	088	.104	.000
- Indirect	.000	.000	.000	.000	.000	.000	.000	.000	.000
- Total	.204	-.153	.303	.090	.067	.193	.088	.104	.000
P1_Performance									
- Direct	.201	.209	.000	.000	.000	.000	.000	.000	.171
- Indirect	.035	-.026	.052	.015	.011	.033	.015	.018	.000
- Total	.236	.183	.052	.015	.011	.033	.015	.018	.171

PART THREE:

STRATEGIES FOR TRANSITION COUNTRIES, ROLE OF LOCAL/REGIONAL GOVERNMENT AND COMPANY STRUCTURES

RECOVERY OF THE COUNTRIES IN TRANSITION – REINDUSTRIALISATION AS "EMERGENCY EXIT"

Andjelko S.Lojpur, PhD[125]

Ana Lalevic – Filipovic, PhD[126]

Abstract

The global economy is entering into a new period of acceleration, mainly as a result of the rapid development and penetration of information and communication technologies. In addition, the directions imposed by globalisation, as well as the overall dynamics of the international economic relations and competitiveness, are affecting the development and improvement of the new competitive positions. In this light, there seems to be no doubt that the South-East European countries should primarily focus on the economic growth and recovery of their national economies.

Without denying the importance of the initial economic, political, geographical, historical and other circumstances of the individual countries at the time they entered the transition, there is ever more reason to believe that the reasons for their falling behind should be sought in their lack of understanding and recognising that there has been a change in the development paradigm.

The question posed by the global crisis is whether and how the former socialist countries or less developed countries can become equal collaborators in the process of expanding the multinational economic concepts, or whether those countries will end up on the periphery, which would result in a further stratification of the level of wealth, painful exploitation of the scarce economic resources and slow industrialisation. Bearing in mind that the dynamics of industrial capitalism has not lost its importance as yet, the authors of this paper intend to seek an answer to the question of whether it is possible to reverse the future concept of development in the countries in transition towards a greater equality in wealth of the world, including the issue of reindustrialisation.

Key words: *globalisation, reindustrialisation competitiveness,transition.*

[125] University of Montenegro, Faculty of Economics, Jovana Tomasevica 37 Podgorica, andjelko@ac.me

[126] University of Montenegro, Faculty of Economics, Jovana Tomasevica 37 Podgorica, savana@t-com.me

1. Transition countries in conditions of globalisation

At the start of the transition in the late 80's and early 90's, the former socialist, mostly less developed countries, found themselves under a severe impact of the globalisation process which had already imposed itself as the dominant success determinant on a global level. The globalisation of the economy has actually become the dominant characteristic of contemporary capitalism (Jessua, C., 2008, p.48). Radical changes which, viewed globally, took place in the real economy in late 20th and early 21st century require a serious review of the conceptual foundations of the economic science and the dominant practice therein. In this vortex, the countries in transition in the late 80's simultaneously found themselves under the difficult and unpredictable impacts of the two dominant and inseparable processes: the external process of globalisation and the internal process of transition. In this respect, at the very beginning of this paper, we highlight the necessity of raising the level of national competitiveness of the countries in transition, particularly taking into account the accession to the European Union, which would, on the one hand, reduce the "fear" and possible negative effects of the "additional" globalisation, and, on the other, raise the level of prosperity in these countries.

Regardless of the impression that the today's network economy provides equal opportunities to all, it appears that the gap is widening in terms of the level of development as well as the wealth inequalities between the developed and the less developed countries. Thus, for instance, in his book "*The World is Flat*" (2005), Friedman explains that globalisation and technology have flattened the world, creating a level playing field in which the developed and the less developed countries can compete on equal terms. However, while admitting that it has gone through dramatic changes, J. Stiglitz argues that the world is not flat, although it has become "flatter", supporting his argument with the fact that there is a growing gap between the rich and the poor, as well as between those who can compete effectively at a global level and those who cannot (Stiglitz, 2007, p.57). Further, T. Piketty also doubts the possible convergence of the distribution of wealth at a global level, pointing out that there is no natural and spontaneous process which would permanently prevent the destabilising, inegalitarian forces (T.Piketty, 2013, p.32). Inequality seems to have become the Achilles heel of the modern economy (Sennet; 2007, p.48).

In the light of the above-said, reviewing the achievements of the last two decades and comparing them with the corresponding expectations, we arrive at the conclusion that most countries in transition face similar problems: huge deficit in the balance of payments, high external debt, unbalanced budget, high unemployment, still slow and insufficient progress in institutional reforms, unfavourable demographic trends, etc. In the same vein, globalisation and the introduction of market economy in Russia and in most other economies transiting from communism to market economy, have not brought about the promised results. If globalisation has failed to reduce poverty, then it has also failed to ensure stability (Stiglitz, b; 2002, p.20). Just by itself, globalisation will not make the countries in transition more humane, effective and equal; the countries in transition will have to fight for themselves to achieve a better position. In the long run, the main force which truly leads to greater equality is acquiring knowledge and skills (T.Piketty 2013, p.33). This suggests that the pace of development of the individual national economies increasingly depends on their own abilities and their perseverance to increase their competitiveness by fully using and increasing their knowledge. Although this is not the primary topic of this paper, it brings us back to the need to review a number of the basic concepts underlying the current economic theory, particularly if we take into account that the economic rationality in the countries in transition should be accompanied by democratic rationality.

In modern economy, a special role undoubtedly belongs to competition, as well as competitiveness as its most important driving force, which can ultimately ensure its adaptation to the world, at a lower or higher level of development. The issue of national competitiveness and

sustainability of national economies has particularly escalated with the growing globalisation. At the same time, the occasional ups and downs of the individual national economies, i.e. their cyclical trends, have confirmed the fact that there are no economies which can display competitiveness and prestige in all industries and their segments in the long run. In this light, Table 1 gives an overview of a number of key indicators which accompany the implementation of the "Europe 2020 Strategy ". The table is headed by Finland as the first-ranked economy and it also presents indicators for a number of countries in transition, some of which are already in the EU.

Table 1. Ranking of the countries in transition according to the priorities established in the *"2020 Strategy"*

Country	*Smart growth pillars*				*Inclusive growth Pillars*		*Sustainable Growth pillar*
	Enterprise environment	*Digital agenda*	*Innovative Europe*	*Education and training*	*Labour market and employment*	*Social inclusion*	*Environmental sustainability*
Finland	4,83	6,15	6,08	6,09	4,73	6,30	5,75
Croatia	3,34	3,99	3,15	4,39	3,37	4,18	4,67
Estonia	4,21	5,30	4,28	5,12	4,88	4,73	4,67
Macedonia	3,95	3,63	2,78	4,01	3,80	3,95	3,19
Hungary	3,49	4,03	3,37	4,47	3,76	4,09	3,59
Lithuania	3,81	4,63	3,65	4,90	4,43	4,27	5,48
Montenegro	3,88	3,91	3,34	4,28	3,69	4,62	4,76
Poland	3,72	3,98	3,43	4,85	3,87	3,89	4,07
Romania	3,61	3,61	2,98	3,95	3,68	3,79	3,94
Serbia	3,16	3,66	2,70	3,80	3,33	3,69	3,84
Slovenia	3,53	4,30	4,25	4,88	3,90	4,98	5,17
Turkey	4,20	3,45	3,53	4,28	3,59	4,38	3,36

Source: WEF; The Europe 2020 Competitiveness Report: Building a More Competitive Europe, Edition 2014.

As for the data presented in Table 1, if we make a comparison of the said indicators for the countries in transition in relation to Finland, which is the leading economy on the global list of competitiveness, we will find their substantial lag in the efficiency factors such as: *the digital agenda*, *innovative Europe* and *education and training*. Thus, we may conclude that most of these countries still have not properly faced the problems they were supposed to cope with a long while ago, one of them being the issue of the long-term development concept in globalisation conditions.

2. Competitive position of countries in transition

In order to find the answer to the question whether it is possible and how to direct the future concept of development in transition countries towards a greater global equality in wealth, including the issue of reindustrialisation, which we have already touched upon in this paper, in the following text we shall analyse the level of competitiveness achieved in the leading developed countries and a number of countries in transition. Let us start by stating that the success achieved so far in the developing countries has chiefly been based on a combination of abundant natural and other domestic resources, government subsidies, cheap labour or some other inherent advantage, usually denoted as comparative. However, doing business nowadays shows that, over time, the comparative advantages of some countries are no longer sufficient to achieve and maintain a high standard of living. At the same time, the efforts to convert the comparative advantages, which are easily sustained, into competitive ones, are failing, as can be seen on the ranking list of competitiveness, where many countries rich in natural resources rank at the very bottom.

With the outbreak of the global economic crisis, it turned out that the developed countries shared this problem with the ones in transition, and that it is no less pronounced in them. Thus, according to the strategically conceptualised vision of the European market economy for the 21st century, formalised in the key documents, the EU economy should be: smart, sustainable and inclusive[127]. Presenting the annual report on the competitiveness of the EU member states, it was pointed out that "Europe is coming out of a crisis and is slowly showing signs of recovery. However, while we are making progress, we are still not reaching the level of growth that we had envisaged and which we need in order to create employment".[128] Thus, for example, the said report states that the manufacturing's share of the EU gross value added declined from 15.8% in 2008 to 15.1% in 2013, as against the target of 20% in 2020. In the same period, 3.5 million jobs have been lost in manufacturing and, of all member states, only Germany managed to increase employment in this area. The report summarises the findings into the following six key messages which need to be taken into account in order to achieve the much-needed increase in competitiveness of the EU member states:

1. Firstly, more investment is needed in all sectors of the economy;
2. Secondly, growth needs investment and investment needs capital;
3. The third message is that we (the EU) should underline the importance of innovation for growth;
4. The fourth message is that Europe has a competitive disadvantage, inter alia, due to high energy prices;
5. The fifth message states that the European companies must have a better access to markets and must be fully integrated in the global value chain; and
6. The sixth message says that the EU member states should improve the quality of their public administration, bearing in mind that the inefficiency of the public and legal systems has been recognised as the key hurdle to improving the EU's competitiveness.

As the gap between the developed and the less developed countries keeps widening, in the manner already explained, it is getting clearer that the development dynamics of the individual national economies will increasingly depend on their own ability to raise competitiveness to a higher level. In the modern world, characterised by unprecedented change in the nature of the economy, the success of a national economy or any of its individual economic entities is ever more often expressed as the aggregate indicator defined as the level of national competitiveness. Table 2 presents an overview of the levels of global competitiveness achieved in a group of the leading countries, taken from the multi-annual reports for the period from 2008-2009 to 2014-15.

[127] "Europe 2020 Strategy"; The conclusions of the European Council state that "we adopt 'Europe 2020', our new strategy for jobs and smart, sustainable and inclusive growth. It constitutes a coherent framework for the Union to mobilise all of its instruments and policies and for the Member States to take enhanced coordinated action."
[128] For more details, see: Competitiveness Reports Press Briefing; 11 septembar 2014, pp. 1-15.

Table 2. Ranking of the leading countries based on the Global Competitiveness Index over the last six reporting periods

COUNTRY	Rank 2014-15	Rank 2013-14	Rank 2012-13	Rank 2011-12	Rank 2010-11.	Rank 2009-10.	Rank 2008-009.
Switzerland	1	1	1	1	1	1	2
Singapore	2	2	2	2	3	3	5
Sweden	10	6	4	3	2	4	4
Finland	4	3	3	4	7	6	6
USA	3	5	7	5	4	2	1
Germany	5	4	6	6	5	7	7
Netherlands	8	8	5	7	8	10	8
Denmark	13	15	12	8	9	5	3
Japan	6	9	10	9	6	8	9
United Kingdom	9	10	8	10	12	13	12
Hong Kong	7	7	9	11	11	11	11
Canada	15	14	14	12	10	9	10
Taiwan	14	12	13	13	13	12	17

Source: Global Competitiveness Report; The World Economic Forum; multi-annual.

In order to provide a more comprehensive insight into the progress achieved, in Table 3 we present a comparison of the global competitiveness levels achieved for a number of the neighbouring countries in transition in the period 2007-2014.

Table 3. Ranking of the neighbouring countries based on the Global Competitiveness Index in the period 2007-2014

Country / Years	Albania	Bosnia and Herceg.	Croatia	Greece	Hungary	Macedonia	Montenegro	Romania	Serbia	Slovakia	Slovenia
2007	109	106	57	65	47	94	82	74	91	41	39
2008	108	107	61	67	62	89	65	68	85	46	42
2009	96	109	72	71	58	84	62	64	93	47	37
2010	88	102	77	83	52	79	49	67	96	60	45
2011	78	100	76	90	48	79	60	77	95	69	57
2012	89	88	81	96	60	80	72	78	95	71	56
2013	95	87	75	91	63	73	67	76	101	78	62
2014	**97**	**-**	**77**	**81**	**60**	**63**	**67**	**59**	**94**	**75**	**70**

Source: WEF; The Global Competitiveness Index; 2007-2014.

In line with the stated goal of this paper and based on the data presented in tables 1 and 2, we may conclude the following:

- According to the latest report, Switzerland was first-ranked for six years in a row (prior to this, it ranked second); the second-ranked was Singapore, which found itself second two years running; the USA was third, having made progress of two positions; Finland was fourth etc.
- Estonia (29) was the leading among the countries in transition, having advanced by three positions compared to the year before; it was followed by a group of countries which made progress on the ranking list compared to the results from the previous years – these include: the Czech Republic, which moved up the list by 9 positions; Lithuania – 41, which advanced

by 7 positions; Latvia – 42, which made a result 10 positions better compared to the year before; Bulgaria – 54, which advanced by three positions, etc.

- Among the neighbouring countries, in 2014 (Table 2), the best ranked was Romania, which was 59th, having advanced by 16 positions; Hungary was 60th; Macedonia ranked 63rd (an advancement of 7 positions); Slovenia fell from the 62nd to the 70th place; Montenegro kept the same ranking – 67th; Croatia fell from the 75th to the 77th place, etc.

Finally, if we take into account the two and half decades of progress made by the countries in transition, which are the focus of this paper, it is evident that they are lagging behind the developed ones. Or, to put it more concretely, commenting on the fact that Croatia keeps losing its industrial substance and tradition, Ž. Primorac points out that the poor condition of the industrial sector is a consequence of the interplay of several factors. ”Part of them“, he notes, ”have surely been prompted by the world’s economic and financial crisis, but part of the responsibility for the negative industrial development trends certainly lies with the country’s economic policy. Management of the economic sector, i.e. the entire economic policy is inadequate, incompetent and inconsistent.“ (Primorac, 2013). Prof. D. Đuričin, a good connoisseur of the transition process, makes a similar observation by remarking that Serbia’s main problem is the so-called *output gap*, i.e. the level of economic activity which is below the objectively possible level. ”The economy of Serbia is impotent and out of tune“, he adds, ”also, the business environment (regulations + institutions + prevailing strategies of the economic entities) for the economic policy is not appropriate“ (Đuričin, 5).

3. Reindustrialisation process as an imposed challenge

The issue of reindustrialisation is among the top unresolved issues in most countries in transition. That said, it is beyond doubt that the economic growth poses a key priority and that the countries in transition are no different from all other economies in this respect. In this vein, Ž. Primorac observes that, in Croatia, ”reindustrialisation is very important for both the future, long-term development of the country, and for overcoming the present economic crisis“. Additionally, he does not fail to note that ”at the end of the last century and especially at the turn of this century, there were enormous changes in the concept of industrial development“, whereby ”the traditional industries were driven out and replaced by new technologies, based on new materials, smart software, robots of huge production capability, three-dimensional 3D printers and other technological achievements" (Primorac, 2013,pp.5-9).

In addition, when it comes to the underdeveloped countries, two basic development concepts have arisen in the economic theory and practice (for more details, see: A. Lojpur; 2015; 23). The first suggests that rapid development can be achieved through a maximum use of the productive resources of a country, such as the abundance of cheap labour, abundant natural resources, possible monopolistic positions, etc. In contrast, the other concept implies that the undeveloped countries have to turn to the application of the (most) up-to-date technologies and scientific achievements in order to catch up with the more developed countries. The latter has proven itself to be realistic and more effective. It has been confirmed as realistic, inter alia, in Japan and the newly industrialised countries of East Asia (the so-called little Asian tigers), whereby their rapid ascent can be explained with their respect for and consistent application of the principles of the so-called "new economy". Therefore, if some countries choose to keep basing their competitiveness solely on natural resources, cheap labour, cheap domestic energy, and, what is worse, do not attempt at re-focusing their fight for better competitiveness towards the non-price factors such as knowledge, etc., objectively looking, they are condemning themselves to a permanent lag, low standard of living and poverty.

Reindustrialisation as reported in this paper does not suggest a "defence" of socialism, still less appealing for a "centrally-planned economy", nor a needless ideologisation and falling into the trap of a new ideological debate. On the contrary, it has been shown that in the today's multipolar world there is no entrenched development paradigm; exit from the crisis for the countries in transition is possible only via a new order, which, as things stand, will not rely on the socialist concept to a great extent. This said, we believe that the following trends can be designated as conceptual directions for the governments of the countries in transition: a) the new role of the state; b) "creative destruction", completing the process of "de-industrialisation"; c) the new industrial policy; d) regional clusters; e) abandoning the myth of foreign investment; f) translation of absolute and comparative into competitive advantages; g) reducing inequality; h) the rise of the "human capital"; i) the process of technological convergence; and j) a new economic paradigm and reactivation of entrepreneurial economy.

a) The new role of the state. Let us start from the fact that there are ever more supporters of the idea that if the "development is completed under the domination of the state, then, equally, the development without the state is completed." In this regard, the new role of the state could be briefly described as its abandonment of the role of the leading entrepreneur and its assuming the role of adjusting the market anomalies and failures. Our starting hypothesis is that „the state makes mistakes", but that the market, in turn, makes even more mistakes than the state. However, both positions, the "counter-market" and the "counter-state" have something in common – there is a need to rein in and take control of "the mad" financial capitalism and thoroughly modernise the system of taxes and transfers which are at the heart of the modern "welfare state". Finally, the experience and the ups and downs of the developed economies show that the market economy cannot take place without the constant presence of the state which regulates social activities and civilised relations between people (Jessua, 2008, p.63).

b) "Creative destruction" (Schumpeter 1942) as the completion of the "de-industrialisation" process. The transition countries we have focused on are small economies according to their important characteristics, which is why they have to be open to the global environment, but at the same time cannot significantly affect the international capital flows and the overall trends in the global market. They have achieved a certain level of stability, but they have reached the stage where the economic growth can no longer be sustained by using the macroeconomic instrument policies. This would mean a total abandonment of the unproductive ”chimney industry“, shutting down big business systems, former socialist giants which still survive in a number of the countries in transition, mainly owing to non-economic reasons, such as ”political“ ones, etc. Simultaneously, this would, in turn, result in abandoning the so-called ”culture of dependency“, inherited from socialism, where individuals rely on big companies for employment (Deakins, D; 2012, p.15). Unlike rendering some companies virtually immortal, as was the case in some countries, such as those of the Soviet bloc, we are to expect spectacular phenomena of the creative destruction; the old industrial countries, especially those in Europe, will have to invest great efforts in order to adapt to the new circumstances (Jessua, 2008, p.47).

c) The new industrial policy. Promoting entrepreneurship in new industrial policies, not those inherited ones but those proven as meaningful, as the cornerstone for social activities, should become the focus of a changed awareness of future progress and dynamism of the countries in transition. With this in mind, it would be necessary to design a proper industrial long-term policy, which would not exclude a certain kind of the necessary protection of domestic industry and a gradual opening up to the world, including the removal of numerous administrative barriers. An argument for such a commitment may be sought in the knowledge that the developed industrial countries intervene whenever that is in the interest of their domestic industry, whereas, throughout their decades-long development, they have opened up their markets only to the extent matching their increased level of competitiveness.

d) Regional clusters. Reindustrialisation which would result in the economic growth will not be possible if the old development policies are still pursued, particularly if they are to rest on the outdated institutional and organisational grounds. Besides, a number of countries cannot timely transform into an entrepreneurial economy due to the lack of the "economy of scale", unbalanced regional development, crushed industry, high mortality rate of family businesses, etc. Instead, it would be possible to foster a new entrepreneurial infrastructure, which, for example, in the initial phase could be created through the innovation-based entrepreneurial clusters, so as to amplify the advantages of an economy based on knowledge and reinforce it until it is fully networked at a regional and possibly supranational level.

e) Abandoning the myth of foreign investments. The experience gathered so far shows that it is unrealistic to expect that the necessary funds for reforms, i.e. reindustrialisation, will be provided by the developed countries or anyone else for that matter. The conclusion is that the "financing" of development must largely rely on domestic savings. In our view, the countries in transition should focus on creating the conditions for a profitable investment of the domestic capital – the question is not whether there is such capital or whether such capital is sufficient, as can often be heard, but how to put it to good use.

In addition to observing that the gap between the rich and the poor countries is still huge, T. Piketty notes that "there is no evidence that the catch-up process is primarily a result of investment by the rich countries in the poor. Indeed, the contrary is true: past experience shows that the promise of a good outcome is greater when poor countries are able to invest in themselves.“ In other words, the poorest catch up with the richest if they manage to achieve the same level of know-how, skills and education, and not by becoming their property. To support his argument, the author is very specific when arguing that „none of the Asian countries that have moved closer to the developed countries of the West in recent years has benefited from large foreign investments, whether it be Japan, South Korea, or Taiwan and more recently China“ (Piketty, 10).

f) The translation of absolute and comparative into competitive advantages. For a fuller understanding of the problems treated in this paper, we find that it is of particular importance to make a distinction between the comparative and the competitive advantage and their connection with the competitiveness of a national economy. Namely, the progress made so far in the developing countries has mainly been based on a combination of abundant natural and other domestic resources, government subsidies, cheap labour or some other inherent advantages, which are usually denoted as absolute and/or comparative advantage. However, doing business nowadays has shown that this advantage is no longer sufficient for achieving and maintaining a high standard of living. At the same time, efforts to convert the comparative advantage, which is easily sustained, into the competitive advantage, are still failing, as can be seen on the ranking list of global competitiveness (WEF), where many countries rich in natural resources rank very low.

g) Reducing inequality. Convergence of inequalities is possible only through a gradual establishment of a new development paradigm based on the "economy of knowledge". Let us start from the fact that it has become quite clear that knowledge and innovation have a key role in the development of civilisation. "The main forces for convergence are the diffusion of knowledge and investment in training and skills... Knowledge and skill diffusion is the key to overall productivity growth as well as the reduction of inequality,“ T. Piketty observes. ”By adopting the modes of production of the rich countries and acquiring skills comparable to those found elsewhere, the less developed countries have leapt forward in productivity and increased their national incomes,“ the author adds (for more, see: Piketty, pp.32-33). Owing to, inter alia, opening up outwards, two world economies have made a huge breakthrough over the last decade – that of China and India. These are no more developing countries but countries in their full swing, which invest great efforts into the

knowledge society, where the education of people and designing future innovation are key (Jessua, 2008, p.47).

h) The process of technological convergence. "The progress in the direction of technological rationality," notes T.Piketty, "would automatically lead to the victory of human capital over financial capital and real estate managers able to win over shareholders deep pockets, victory competencies of origin" (Piketty, 2013, p.33). With the rapid globalisation and technological revolution over the past few decades, knowledge has become the key factor of competitiveness and on that basis new models of the economic growth are being re-shaped today. The concept we favour here implies the acceptance of the principle of the economy of knowledge, i.e. the development policy based on knowledge and innovation. The backbone of this strategy consists of four pillars (*Building Knowledge Economies*, pp.23-28): a) labour, b) modern and adequate information infrastructure, c) efficient system of innovation, and d) developed national institutional framework. Starting the process of technological convergence and the process of opening up borders for trade can be encouraged; however, it is vital to diffuse, multiply and exchange knowledge, whereby the mere market mechanism is pushed into the background.

i) New role of social capital. This concept centres on the rise of the "human capital", whereby the starting hypothesis is that, by using a well-designed strategic approach to the development of human potential, small underdeveloped countries can achieve not only a national recognition in the regional terms, but also a significant acceleration of their economic development. Social capital can be described as a framework for a huge number of various interconnections between the entrepreneurs, their families, friends and communities, in which a specific system of values and informal sanctions is established. In this regard, a new model of economic growth should be founded on the application of knowledge – the foundation on which it is possible to establish a new development paradigm which will not rest only on the maximum growth rate of the domestic product, forced loyalty, subordination and hegemony, raw functional authority, etc. In this way, the less developed countries, the countries from the „periphery“, would be able to free themselves from the world centres of the economic and political power. This is how Finland, the world’s leading country in terms of competitiveness, has succeeded, having used the benefits of an economy based on knowledge, with most of the merit resting with its insisting on constant innovation (Ohmae, 2007, p.17).

j) A new economic paradigm and the re-activation of entrepreneurial economy. The idea of re-activating this premise in the process of reindustrialisation is not new, but the reality is that we have "entrepreneurship in the language and classics on the mind (work)." Additionally, in most transition countries, the tradition of collective entrepreneurship caused problems in the introduction of individual entrepreneurship, launching family businesses, etc. Evidently low entrepreneurship in the countries in transition is almost a logical consequence of the fact that this is mostly the so-called *necessity-driven entrepreneurship* and not the *opportunity-entrepreneurship*, which prevails in the developed countries (Deakins, D. 2012; p.39). Thus, for example, recent research (*General Entrepreneurship Monitoring*, 2014) showed that the percentage of people who are not ready to start a business due to their fear of failure is as high as 40.7% in the EU; 41.3% in Russia; 51.1% in Poland; 39.5% in Romania, etc; at the same time, this figure amounts to only 29.7% in the USA. Finally, the process of changing the economic world which has taken place and which is based on entrepreneurship and innovation, has probably for the first time in human history confirmed that the prosperity and wealth of a nation do not depend on its existing wealth.

4. Conclusion

The transition from socialist to market economy, as part of the comprehensive political and ideological changes which have taken place in Eastern Europe, still proves to be a painful and

incomplete process. In addition, in this paper we have shown that globalisation in itself does not have to be harmful. For the less developed countries, the mystery still remains when it comes to the search for a proper „recipe“ for long-term success. Many believe that the collapse of industry in most countries in transition is over. The situation is still made worse by the fact that these countries, already depleted, do not have the funds to revive their industry and consequently seek an exit in foreign investment. Thus, they have to expose themselves to the whims of globalisation.

On the other hand, in the today's ever more open and integrated world economy, the issue of competitiveness is central. Namely, the ever more stronger competition in the conditions of the omnipresent globalisation has shown to be a threat for the survival of the companies which are incapable of overhauling, being innovative and productive, and withstanding the external pressure, as well as the entire national economies and communities (the EU, the USA, Greece, Portugal, Italy, Spain, earlier Ireland, etc.).

As for the countries in transition, our advocating their reindustrialisation assumes that the various conceptual frameworks and possible modes of withstanding globalisation can be reduced to four main principles: a) reindustrialisation of national economies, b) fuller use of absolute and comparative advantages, c) gradual establishment of a new development paradigm with the knowledge economy as its foundation, and d) real institutional reforms directed towards establishing institutional pluralism suiting the conditions and specificities of each country.

References:

1. Deakins, D. Freed, M. (2012). *Entrepreneurship and Small Firms*. Prevod Datastatus. Beograd.
2. Dragićević, M. (2012). *Konkurentnost, projekat za Hrvatsku*. Školska knjiga. Zagreb
3. Drucker, P. (2006). *Draker iz dana u dan.* Asee Books. Novi Sad.
4. Đuričin, D. *Nacrt strategije reindustrijalizacije Srbije*. Beograd.
5. Friedman, L.T. (2005). *The world is Flat: A brief History of the Twenty First Century.* New York, Straus and Giroux.
6. Jessua, C. (2008). *La capitalisme*. Prevod. Zagreb.
7. Lojpur, A. Lojpur, A.A. (2015). Reindustrialization – Between the Late Awakening and New Paradigm of Economic Growth. *Acta Economica*. Banja Luka. No 22, pp.9-31.
8. Lojpur, S.A., Peković S., Lojpur, A.A. (2011). The competition problems in countries of transition adoption of ”new“ development economic paradigm as imperative. *International Conference.* Mostar.
9. Ohmae, K. (2007). *Nova globalna pozornica.* Prevod. Mate.Zagreb.
10. Piketty, T. (2013). *Equity in the Twenty.first Century*; prevod, Profil, Zagreb.
11. Primorac, Ž. (2013). Hrvatskoj je potrebna nova industrijska politika. *Financing.* Banja Luka. No. 2.pp.5-12
12. Senet, R. (2007). *The Culture of the New Capitalism.* Prevod. Arhipelag. Beograd.
13. Stiglitz, J. (2007).(a) *Making Globalization Work*, Penguin Books.
14. Stiglitz, J. (2002) (b) *Globalization and Its Discontents*. W.W.Norton &Company, prevod SBM, Beograd.
15. Vietor, H.K.R. (2010). *How countries Compete; Strategy, Structure, And Goverment In The Global Economy*. Harvard Business School Publishing, (prevod), Mate, Zagreb.
16. Global Competitiveness Report 2014/15 for more years. The WEF.
17. WEF (2014) The Europe 2020 Competitiveness Report: Building a More Competitive Europe.
18. Global Entrepreneurship Monitor (2014), GEM Report.
19. World Bank (2007). Building Knowledge Economies. A*dvanced Strategies for Development. Washington.*

CORPORATE GOVERNANCE IN THE WESTERN BALKAN REGION WITH SPECIAL EMPHASISES TO THE REPUBLIC OF MACEDONIA AND THE REPUBLIC OF ALBANIA

Brikend Aziri

Izet Zeqiri

South East European University, Republic of Macedonia

Introduction

The way how modern society functions is closely connected to the production of goods and services that fulfill human needs. Business companies as the main element in the productions process from this point of view enable the normal functioning of human society. Without them contemporary societies cannot be imagined.

One of the most often used words not only in management and organizational science, but in economy in general is the word “corporation”. Corporations are of the most often forms of organizing a business activity. They are present in all parts of the world, although not to the same extent. Even besides the many joint characteristics of corporations, still they differ from each other in a great amount of aspects. The differences have to do with their size, type of industry in which they are active, way how they are internally organized. The characteristics of corporations are connected to the characteristics of countries in which they function. Most big and powerful corporations have originated in developed countries.

Even beside the great importance of corporations, still it’s very difficult to give one definition that would incorporate all features and indicate the entire importance of corporation in nowadays national economies.

Even though a great variety of definitions on corporations can be found throughout the world literature a perception can there is some sort of agreement regarding the characteristics, rights, responsibilities and obligations of corporations exists.

A corporation is a profit-seeking enterprise of persons and assets organized by rules. Most of these rules are determined by the unilateral action of corporate organs or officials. Some of these rules are determined by market forces. Some are determined by contract or law. (Eisenberg, 1989, pp. 1461).

Corporations have a variety of advantages (Kaliski, 2007, pp.161):

- Stocks. A corporation can issue and attempt to sell stock. Every share of stock owned represents a share of the corporation’s ownership. A corporation may even give its stock away for any reason; for example, as a donation to a charity, or as a reward to employees for industrious service.
- Dividends. A corporate board of directors has the authority to declare and pay dividends in the form of cash or stock. Cash dividends are ordinarily payable from current net income, although net income “kept” from previous years may also be used. A common name for net income kept is “retained earnings.” Recipients of stock dividends receive shares of stock in the corporation, thereby increasing the total number of shares they own. Stock dividends are declared from capital stock that has been authorized but not issued.
- Limited Liability. If a corporation suffers large financial losses or even terminates its existence, the shareholders might lose part or all of their total investment. However, that is ordinarily the extent of their loss. Creditors cannot satisfy their claims by looking to the personal assets of corporate shareholders as they can with a sole proprietorship or an ordinary partnership.
- Corporations have the basic right to conduct a business in which they sell products or services and to engage in either a profit seeking or a non-profit-seeking enterprise.
- Corporations have the right to own, sell, rent, or lease real or personal property.
- Corporations may sue other business entities, such as another corporation, a partnership, or a sole proprietorship.
- Corporations may merge with other corporations.
- Corporations may make contracts with either another business or a person.

- Corporations may hire or discharge employees of any rank, from entry-level employees to the chief executive officer (CEO).
- Corporations may borrow money.
- Corporations may make any lawful investment.

Besides the many advantages, corporations face a series of disadvantages such as (Kaliski,2007, pp.162):

- Risk. By engaging in business activities, corporations are at risk, great or small. Profit-seeking corporations may very well find the large profits they seek. But they risk huge economic losses and even bankruptcy.
- Suits. Corporations may be sued by any business, including other corporations. They may also be sued by individuals or groups of persons.
- Income Tax. Corporations must pay federal and state income taxes on the net profit they make during a calendar or fiscal year. People who receive cash dividends must also pay income tax for the year they are received. Thus it is often said that corporation profits are subject to double taxation. Corporations receive no deduction for any cash dividends that they pay. Recipients of stock dividends, however, postpone payment of income tax on stock dividends until they sell the stock.

Monks and Minow (Monks., *et al.*, 2007, pp. 14-16) go a step further and talk about the purposes of a corporation:

- *Human satisfaction.* The corporate structure allows value to be placed on differing contributions that combine together so that the whole is greater than the sum of its parts. Through corporations, skills and experience can be competitively marketed and rewarded according to their contribution to value. Corporations have provided a means for the ambitious to achieve, the enterprising to prosper, and the ingenious to be enriched beyond their fondest expectations – the role played by the church or the military or the crown at other times and in other cultures.
- *Social structure.* Human beings have created social structures since their cave days, in order to foster cooperation and specialization. Corporations offer lasting and resilient social structures.
- *Efficiency and efficacy.* Corporations enable people to get things done. The words "businesslike," "professional," and "enterprise" are synonymous with beneficial efficiency and efficacy. The translation of an idea into a product; human ingenuity into bricks, mortar, and equipment; and savings into "growth stocks," has materially enhanced the lives of many people in democratic capitalist societies.
- *Ubiquity and flexibility.* Corporations give individuals a greater and more lasting sphere of action. Corporations have no boundaries in time or space. A corporation continues despite the death or retirement of its highest officers. A corporation that is chartered in Delaware can do business anywhere in the world. Corporations can be moved. They can be transformed by a revision to their legal or financial structure. A corporation's officers and directors can change its place of incorporation, close existing places of business and open new ones virtually without restraint, and reallocate investment capital.
- *Identity.* Corporations are "persons" within the meaning of the United States Federal Constitution and Bill of Rights. They are entitled to protection against the taking of their property without due process of law. They are entitled (at least to some extent) to freedom of speech. They can contribute money to political causes and campaigns, though some restrictions apply, due to post-Watergate reforms.

The term 'corporate governance' refers to the legal rules, institutional arrangements, and practices that determine who controls business corporations, and who gets the benefits that flow from them. Corporate governance issues include how major policy decisions are made in business corporations, how various stakeholders can influence the process, which is held accountable for performance, and what performance standards are applied. The phrase corporate governance came

into prominent use in the 1980s, and is often used narrowly to refer to the mechanisms and rules that govern relationships among direct corporate participants in publicly-traded firms, especially shareholders, directors, managers, and sometimes employees. But, historically, questions about social control over corporate behavior have been quite important. Since the corporate form first emerged as the dominant way to organize big business enterprises in the second half of the nineteenth century, policy concerns about corporations have, at various times, focused on antitrust, consumer protection, pollution control, worker and or investor protection, corporate involvement in the political process, and corporate contributions of resources to charitable causes (Smelser *et al.*, 2004, pp.2797).

Good corporate governance helps to prevent corporate scandals, fraud, and potential civil and criminal liability of the organization. It is also good business. A good corporate governance image enhances the reputation of the organization and makes it more attractive to customers, investors, suppliers and, in the case of nonprofit organizations, contributors. There is some evidence that good corporate governance produces direct economic benefit to the organization. One study, conducted at Georgia State University and published in December 2004, found that public companies with independent boards of directors have higher returns on equity, higher profit margins, larger dividend yields, and larger stock repurchases. This study was consistent with another study of 250 companies by the MIT Sloan School of Management which concluded that, on average, businesses with superior information technology (IT) governance practices generate 25 percent greater profits than firms with poor governance, given the same strategic objectives (Lipman *et al.*, 2006, pp.3).

Corporate governance in the Republic of Macedonia

Since the independence of the Republic of Macedonia one of the priorities in the field of the country's economic development has been the establishment of a proper environment for the development of business. Therefore one of the highest priorities has been first of all drafting a legal framework which would clearly define the grounds on which companies operate and establish internal and external relationships. (Aziri, 2011a, 141). The corporate governance legal framework of the Republic of Macedonia is presented in table 1.

Table 1 Corporate governance legal framework in the Republic of Macedonia (IFC, 2007)

Law/Regulation	Applicable to	Explanations
Company Law	All commercial entities	Regulates company forms and legal capacities
Securities Law	Joint stock companies and limited partnerships by shares, which have issued securities that were publicly offered	Regulates the manners of securities issuance and trading
Law on takeovers	All public joint stock companies	Regulates takeovers, and in particular minority shareholders protection
Corporate governance code	Joint stock companies on the Macedonian Stock Exchange's super listing, but other joint stock companies are not excluded	Complements the Company Law and the Securities Law
Other regulations (bankruptcy, taxes, etc.)	All commercial entities	Regulate company-specific situations
Listing Rules of the Macedonian Stock Exchange	All joint stock companies, listed on the Macedonian Stock Exchange	Regulates companies' access to and participation in the stock exchange

A study of the World Bank in 2005, determines the folowing characteristics of corporate governance in the Republic of Macedonia:

- Privatization in the 1990s left the legacy of companies largely controlled by managers, with the formal and informal support of employees.
- There is limited foreign investment, and no domestic institutional investors.
- The 2004 Company Law improved shareholder rights in a number of areas.
- Awareness of the importance of good corporate governance has greatly increased in recent years, with the activities of the USAID-funded Corporate Governance and Company Law project. The Macedonian Securities Commission (MSEC) and the Macedonia Stock Exchange (MSE) have played important roles in promoting minority protection and corporate governance reform. The MSE sponsored the translation of the OECD White Paper on Corporate Governance in South East Europe in 2004 while the recently established Macedonian Corporate Governance Council hosted the OECD regional corporate governance roundtable in June 2004.
- The shareholder rights group Akcioner also plays an important role, drawing attention and media scrutiny to corporate governance abuses, and supporting the claims of minority shareholders.
- Two important institutions (the MSEC and the court (company) registrars) have historically had weak authority and limited resources; A new registration law is being drafted that will abolish the court registration of commercial legal entities in September of this year and that will introduce a one-stop-shop registration facility by the end of this year.
- Macedonia has established the goal of joining the European Union, and is gradually moving to adopt the acquis communautaire with the transposition of EU company law directives and OECD standards.

The Company Law in the Republic of Macedonia recognizes both the one-tire and the two-tire system for corporate governance. But, the corporation itself can change the system of corporate governance that is from the one-tire to the two-tire system and vice versa by changing its statute. The one-level system of corporate governance is characterized by the governing of only one organ, the board of directors who is appointed by the shareholder and should protect their rights and interests in the corporation. The two-level system on the other hand includes a governing and a supervision organ with shared responsibilities. (Aziri, 2012, 417).

The board of directors manages the company within the scope of the authorizations provided for by the law and the charter and the authorizations expressly granted by the general meeting of shareholders. The board of directors has the broadest authorizations in managing the company, within its scope of operations, and acting, in all circumstances, on behalf of the company, except for matters falling within the authorizations explicitly granted to the non-executive members of the board of directors. The board of directors may be consisted of at least three but no more than fifteen members, elected by the General meeting of shareholders.

When electing the members of the board of directors, it is specified which members are elected as independent members of the board of directors. The independent members of the board of directors i elected from among the non- executive members of the board of directors. The board of directors is consisted of non-executive members and executive members, but the number of non-executive members must be higher than the number of executive members. When electing members of the board of directors it must be specifies which ones are to be independent members of the board of directors. The independent members of the board of directors are elected from the group of non-executive members. If the board of directors has up to four non-executive members, at least one of the non-executive members of the board of directors must be an independent member. If the board of directors has more than four non-executive members, at least one quarter of them shall be independent members of the board of directors.

The board of directors has a President of the board of directors who is elected by a majority of votes from the ranks of the non-executive members of the board of directors, but the board itself has the right to replace the president of the board at any time. The president of the board of directors has the duty to call and chair the meetings, and is responsible for keeping records of the meetings and organizing other manners (forms) of operation and decision making of the board of directors. If the president, for any reason, is not able to perform his functions, or if he is absent, the meetings of the board of directors are chaired by another nonexecutive member of the board of directors, elected by a majority of votes of the members of the board of directors present at the meeting.

The manner of electing executive members of the board of directors is determined by the charter. The charter may provide for the election of an executive member to be carried out by unanimous resolution of all members of the board of directors. One of the executive members of the board of directors, duly elected as an executive member, may bear the title which is typically associated with the performance of his duties (general director, or chief executive director, and/or other appropriate titles), and the other executive members may bear the title which is typically associated with the performance of their duties, entrusted to them as executive members of the board of directors. If the board of directors consists of more than one executive member, the members of the board of directors shall decide by a majority vote which executive member i responsible for the issues related to employees and relations with them.

The authorizations of the executive members of the board of directors can be found in article 371 of the company law which states that:

- With the exception of the authorizations explicitly granted to the board of directors pursuant to the law, the executive members shall manage the operations of the company and shall have the broadest authorizations to undertake all matters related to the management, implementation of the resolutions of the board of directors and execution of the day-to-day activities of the company, as well as to act on behalf of the company in all circumstances.
- The board of directors shall entrust the representation of the company in relations with third parties, to its executive members.
- In the event that the board of directors elects more than one executive member, it shall appoint a member who shall manage the activities of the executive members and upon whose proposal the board of directors shall determine the internal organization and the manner of coordinating the management of the operations of the company.
- The board of directors shall file an application form for registration of the executive members authorized to represent the company in the commercial register.
- The executive members may appoint officers who shall run the day-today management of the company, in accordance with the resolutions, instructions, and orders of the executive members of the board of directors.

But on the other hand article 373 numbers many authorizations that are not transferable to the executive members of the board of directors. This article states that the board of directors may not transfer authorizations to the executive members where the following issues are to be decided upon:

- closure (termination) and/or transfer of the business and/or any part thereof, contributing to more than 10% of the revenue of the company;
- decrease and/or expansion of the scope of operations of the company;
- essential internal organizational changes in the company, set out by a bylaw/ regulation of the company;
- establishing long-term cooperation with other companies, being of essential importance for the company and/or its termination;
- founding and termination of a trade company participating to more than one-tenth of the charter capital of the company; and
- founding and termination of branch offices of the company.

The non-executive members of the board of directors have the right of supervision over the management by the executive members. Besides thins they are entitled to inspect and verify the books and documents of the company as well as its assets, and in particular, the petty cash of the company and its securities and goods. The non-executive members may oblige any employee in the company and/or another expert to carry out certain expert matters related to supervision.

The supervisory board is the body the powers of which relate to the supervision over the company's operations and in particular to the operations of the management body. The members of the supervisory board shall are elected by the general meeting of shareholders. When electing the members of the supervisory board, it shall be specified which members are elected as independent members of the supervisory board. If the supervisory board has up to four members, at least one of them must be an independent member. If the supervisory board has more than four members, at least one quarter of its members must be independent members of the supervisory board.
The supervisory board of the companies in the Republic of Macedonia must have at least three members bout no more that eleven members.

According to article 380 of the Company Law the supervisory board has the following authorizations:

- The supervisory board shall supervise the management of the company performed by the management board.
- The supervisory board may inspect and verify the books and documents of the company, as well as its assets, in particular the petty cash of the company and its securities and goods. The supervisory board may oblige certain members of the board, the certified auditor and/or experts, to carry out certain expert matters related to supervision.
- The authorizations related to the management of the company may not be transferred to the supervisory board, unless otherwise stipulated by this law. By way of exception, the charter may provide for the management board to decide on certain types of activities only upon prior approval of the supervisory board. If the supervisory board refuses to grant an approval, the management board may request an approval from the general meeting of shareholders by submitting an explanation in writing. The resolution of the general meeting of shareholders granting the approval shall be adopted by a majority vote which shall not be less than two thirds of the voting shares represented at the general meeting of shareholders, unless the charter prescribes a greater majority. The charter may provide for additional requirements for the adoption of the resolution.
- The supervisory board shall represent the company in relations with members of the management board.

The supervisory board elects the president of the supervisory board from among its members, with a majority of votes from the total number of members of the supervisory board and has the right and power to dismiss the president at any time and elect a new one. If, for any reason, the president of the supervisory board is not able to exercise his functions, and/or if he is absent, the meetings of the supervisory board are be chaired by a member of the supervisory board elected by a majority of votes of the present members of the supervisory board.

The members of the management board are elected by the supervisory board. According to the Company law of Macedonia the management board of a company must have at least three but no more than eleven members in cases when the charter capital of the company is at least 150.000 EUR in denar counter value. In companies with a charter capital of less than 150,000 EUR in denar counter value, a manager may be elected instead of a management board, having all the rights and liabilities of the management board. One of the members of the management board is elected as president but the supervisory board may dismiss the president of the management board and appoint a new one, at any time.

The management board has a duty to manage the company, and within such scope, it is be personally responsible for conducting the operations of the company. It has the broadest authorizations in managing the company, or in undertaking all matters related to the management of the operations and day-to-day activities of the company, and in acting, in all circumstances, on behalf of the company, within the scope of operations of the company, except for authorizations explicitly granted to the general meeting of shareholders and the supervisory board. Besides this the management board has the right to appoint managers who shall conduct the day-to-day management of the company, in accordance with the resolutions, instructions and orders of the management board.

Upon having obtained prior approval by the supervisory board the managerial board may decide on issues, such as:

- closure (termination) and/or transfer of the business and/or any part thereof, contributing to more than 10% of the revenue of the company;
- decrease and/or expansion of the scope of operations of the company;
- essential internal organizational changes in the company, set out by a bylaw/ regulation of the company;
- establishing long-term cooperation with other companies, being of essential importance for the company and/or its termination;
- founding and termination of a trade company participating to more than one-tenth of the charter capital of the company; and
- Founding and termination of branch offices of the company.

In the Republic of Macedonia the members of the managerial board are the representers of the company, but upon approval by the supervisory board they may appoint one manager to represent the company.

Most corporations have between 4-7 members on their supervisory and management boards and at least one independent member in the supervisory board. Most supervisory boards hold 4-8 meeting a year while all management board holds at least one meeting a week. Shareholders have a high frequency of membership in the supervisory and management boards with management boards having a slightly higher percentage of shareholder membership compared to supervisory boards. The boards of directors in Macedonia are slightly smaller compared to the supervisory boards and management boards with only 7% corporations numbering between 10-12 members of the board of directors. Around 4/5 of boards include one or two independent members, while all boards of directors have at least one non executive member. Females are strongly underrepresented in the composition of the boards of directors. All boards of directors hold a meeting once a month. On the other side around half of the boards of directors hold more than 12 meetings, that is between 12-20 meetings a year. Shareholders are members in around 83% of boards of directors in Macedonia. This can serve as a prove that the agency theory is not implemented in general in Macedonian corporations. Although not very characteristic for Macedonian corporations CEO duality is more represented in small corporations compared to big corporations in Macedonia. Monthly salary is the most often used remuneration technique for members of the supervisory board, management board and the board of directors with other forms of payment being rarely implemented. (Aziri, 2011b, 180)

Corporate governance in the Republic of Albania

The corporate governance framework in Albania is essentially regulated by Law no. 9901 approved by the Albanian Parliament on 14 April 2008 on “Entrepreneurs and Commercial Companies”, which entered into force on 21 May 2008 and replaced the previous legislation on business organisations in Albania (Laws no. 7632/1992 and no. 7638/1992). The new law regulates individual entrepreneurs and commercial companies. In contrast to the previous company law, the 2008 law also includes the definition of branches and representative offices of foreign companies and details provisions on groups of companies. Companies incorporated under the old regime have a three-year transition period in which to align their organisational structure with the new law. (EBRD,2010,6).

Similar to Macedonia, in Albania as well companies can implement either the one-tier or the two-tier system of corporate governance.
According to the one-tier system of corporate governance the bord of directors is by definition the highest governing body of the corporations. The board of directors can have between 3-21 members,but the number of board members must be uneven. They are elected by the General Meeting of shareholders for a three year mandate with the right of one reelection.

According to article 154 of the Law on Entrepreneurs and Commercial Companies the board of directors in Albania has the folowing rights and duties:

- Giving directives to the Managing Directors with respect to the implementation of business policies;
- Monitoring and supervising the implementation of business policies by Managing Directors;
- On request of the General Meeting, preparation of measures which fall into the competencies of the latter, recommendation of decisions to be adopted by the General Meeting and execution of the latter's decisions;
- Convening a General Meeting if it is necessary for the company’s interests;
- Ensuring that the company observes the applicable law and accounting standards;
- Examination of the company's books, documents and assets;
- Ensuring that the annual statement of accounts is prepared by the Managing Directors as well as their report regarding the performance status of the company and any other disclosures that may be required by law or Statute; these documents must be approved and signed by all board members to be presented to the General Meeting together with a report of the board regarding the reasons for the approval and a description of the way the management has been monitored throughout the business year;
- Ensuring that the audit of the books and records is performed at least annually by
- the independent auditor, with the auditor’s report addressed to the General Meeting of shareholders and made available to each director and Managing Director. The board report mentioned under no. 7 has also to comment on the auditor’s report;
- Hiring and discharging Managing Directors;
- Determining the benefits for Managing Directors;
- Causing the company to incur debt amounting to more than 5% of the company’s annual turnover of the last business year through loans or the issuance of bonds or convertible debt instruments;
- Establishing lasting business co-operations and proposing policies regarding the formation of new companies or groups;
- Other duties as set by law or Statute.

According to the twi-tier system of corporate governance, corporations have a supervisory and a management board. The supervisory board can have between 3-21 members. The members of the supervisory board must be non-managerial and most of them must be independent members.

Besides this it is stipulated that depending on the Statute of the company some members of the supervisory board can be elected and/or dismissed by the employees. The duties and rights of the supervisory and the management board are presented in Table 2.

Table 2 Rights and duties of the supervisory and management board in Albania

Supervisory board	Management board
▪ Monitoring and supervising the implementation of business policies by Managing Directors; ▪ On request of the General Meeting, preparation of measures which fall into the competencies of the latter, recommendation of decisions to be adopted by the General Meeting and execution of the latter's decisions; ▪ Convening a General Meeting if it is necessary for the company's interests; ▪ Ensuring that the company observes the applicable law and accounting standards; ▪ Examination of the company's books, documents and assets; ▪ Ensuring that the annual statement of accounts is prepared by the Managing Directors as well as their report regarding the performance status of the company and any other disclosures that may be required by law or Statute; these documents must be approved and signed by all board members to be presented to the General Meeting together with a report of the board regarding the reasons for the approval and a description of the way the management has been monitored throughout the business year; ▪ Ensuring that the audit of the books and records is performed at least annually by the independent auditor, with the auditor's report addressed to the General Meeting of shareholders and made available to each director and Managing Director. The board report mentioned under no. 7 has also to comment on the auditor's report; ▪ Hiring and discharging Managing Directors; ▪ Establishing lasting business co-operations and proposing policies regarding the formation of new companies or groups.	▪ Ensure that the necessary accountancy books and documents are kept; ▪ Provide for and sign the annual statement of accounts and consolidated accounts and the performance report and present it to the board for approval together with the proposals for the distribution of profits which the Managing Director will make in the General Meeting; ▪ Create an early warning system with respect to developments threatening the existence of the company; ▪ Giving directives to the Managing Directors with respect to the implementation of business policies; ▪ Determining the benefits for Managing Directors; ▪ Causing the company to incur debt amounting to more than 5% of the company's annual turnover of the last business year through loans or the issuance of bonds or convertible debt instruments; ▪ Establishing lasting business co-operations and proposing policies regarding the formation of new companies or groups.

According to article 160 of the Law on Entrepreneurs and Commercial Companies Board members may be granted remuneration or incentives including parts of the company profit or share options for their work. The salary of Managing Directors may be supplemented by incentives. The scheme for these benefits shall be prepared by the board and approved by decision of the General Meeting. Individual benefits shall be established by the board and must adequately reflect the duties of non-managing board members and the Managing Directors.

A comparative analysis of corporate governance bodies in the Republic of Macedonia and the Republic of Albania

Both countries implement parallel the one-tier and the two-tier model of corporate governance. If these systems of corporate governance, besides in the rights and duties of members

aspects, that have been mentioned in the previous text the following similarities and differences can be noticed.

Table 3 summarizes the similarities and dissimilarities of the board of the directors in the Republic of Macedonia and the Republic of Albania.

Table 3 The board of directors in the Republic of Macedonia and the Republic of Albania

Characteristic	Board of directors in Macedonia	Board of directors in Albania
Board size	3-15 members	3-21 members
Length of mandate	A period specified in the company charter, which shall not be longer than six years. If the company charter does not stipulate the duration of the term of office of the members of the management body or supervisory board, their term of office shall be of four years.	Three years
Right of reelection	Unlimited	One reelection
Stipulation for number of independent directors	Preferred to have a bigger number of non-executive of executive board members	None
Cross boarding limitation	No more than five companies registered in the country	No more than two companies registered in the country
Dismissal of board members	The resolution for dismissal requires a majority of votes from the voting shares represented at the general meeting of shareholders, unless otherwise stipulated by law, or unless the company charter stipulates a greater majority.	At any time with simple majority by the General Meeting
Board members remuneration	Non-executive members have the right to a monthly lump-sum and/or per meeting remuneration as well as reimbursement of all costs endured to participate in the board meetings. Executive members of the board are entitled to a salary or monthly payment as well as right to insurance and right to reimbursement of travel expenses.	Profit sharing and share options among others. Individual benefits as determined by the board
Chairman of the board	Yes	Yes
Vice-chairman of the board	No	Yes
Committees of the board	Yes	The majority of members must be non-executive members
Operating quorum	Half of board members must be present and the number of executive members present must be lower than the number of non-executive members that are present	Half of board members must be present
Collective liability of the board	Yes	Yes

Table 4 summarizes the similarities and dissimilarities of the supervisory board in the Republic of Macedonia and the Republic of Albania.

Table 4 The supervisory board in the Republic of Macedonia and the Republic of Albania

Characteristic	Board of directors in Macedonia	Board of directors in Albania
Board size	3-11 members	3-21 members
Length of mandate	A period specified in the company charter, which shall not be longer than six years. If the company charter does not stipulate the duration of the term of office of the members of the management body or supervisory board, their term of office shall be four years.	Three years
Right of reelection	Unlimited	One reelection
Stipulation for number of independent directors	Preferred to have a bigger number of non-executive of executive board members	The majority must be independent members
Dismissal of members	The resolution for dismissal requires a majority of votes from the voting shares represented at the general meeting of shareholders, unless otherwise stipulated by law, or unless the company charter stipulates a greater majority.	At any time with simple majority by the General Meeting
Board members remuneration	The right to a monthly lump-sum and/or per meeting remuneration as well as reimbursement of all costs endured to participate in the board meetings.	Profit sharing and share options among others. Individual benefits as determined by the board
Chairman of the board	Yes	Yes
Vice-chairman of the board	No	Yes
Operating quorum	Half of board members must be present	Half of board members must be present

Conclusion

As can be noted from the text above, specially from the data presented in table 3 and 4, corporate governance in the Republic of Macedonia and the Republic of Albania have several similarities and dissimilarities as well.

Both countries provide the right of the companies to implement either the one tier or the two tier model of corporate governance.

In the Republic of Macedonia smaller board of directors and supervisory board are stipulated compared to the Republic of Albania. The importance of independent board members is more emphasized in the Republic of Macedonia. In both countries the General Meeting of Shareholders has the right to dismiss members of the board of directors. Corporations in Albania have vice-chairman of the board. Profit-sharing and share-options are not clearly stipulated as ways to remunerate board members in the Republic of Macedonia although they are not forbidden.

References

1. Aziri B. 2011. *Corporate Governance: Role and Functions of the Board of Directors in the Republic of Macedonia.* Germany: Lambert Publishing
2. Aziri B. 2012. Corporate Governance in the Republic of Macedonia. *Archives des Sciences 5/2012*
3. Eisenberg M.A.1989. *The Structure of Corporation Law, Columbia Law Review,* 89,7,1989
4. Kaliski B.S.2007. *Encyclopedia of Business and Finance***,** Second Edition.Detroit: Thompson Gale.
5. Lipman F.D, Lipman K. 2006. *Corporate Governance Best Practices:Strategies for Public, Private and Not-For-Profit Organizations***.** New Jersey: John Wiley&Sons Inc.
6. Monks R A.G. Monks, Minow N. 2007. *Corporate Governance***,** Third Edition. New York: Blackwell Publishing
7. Smelser N.J, Baltes P.B. 2004. *International Encyclopedia of the Social and Behavior Sciences***,** Elsevier Pub

THE EFFICIENCY OF THE ORGANIZATIONAL AND INSTITUTIONAL STRUCTURE OF THE COMMONWEALTH OF INDEPENDENT STATES

Slaviša KOVAČEVIĆ[129], Željko JANJETOVIĆ[130], Dijana BOJIĆ[131]

Abstract

The establishment of the Commonwealth of Independent States is the most important political event on the post-Soviet space after the dissolution of the Soviet Union. Although it was very significant event for the states of the post-Soviet space which entered the CIS, they had differently perceived the goal of the entrance into CIS and the functioning of the CIS itself. Some of them saw the CIS as a new integration of the post-Soviet economy that was supposed to be monolithic and unique, while the others thought that the CIS was only a civilized form of the disappearance of a great country. In the very beginning, a biggest issue was a question of legal succession from the relations with former USSR. Still, it was proved over two decades after the CIS establishment, that the Commonwealth of Independent States brought more benefit than damage to its member states and to the broad region as well, primarily the Eurasian. The economic and political integrations of this part of the world have greatly and irreversibly been on the scene, and brought expected results to the CIS members.

The creation of Eurasian Union on the space that includes the CIS as well is already a proclaimed goal which wouldn't be easy to achieve, but which is a natural way from the USSR dissolution, over the CIS establishment to the Customs Union. Each of these forms provides many benefits to the member states. The most common form is to provide larger and free market, more efficient use of the available natural resources, capital, workforce and available capacities, and to give greater opportunities and privileged position to all business actors and citizens, with respect to the third countries.

***Key words**: The Commonwealth of Independent States, economic integration, efficiency, growth*

[129] PhD, Faculty of Economics, University of Banja Luka, E-mail: slavisa.kovacevic@efbl.org
[130] Ambassador of Bosnia and Herzegovina in Germany
[131] E-mail: dijanabojic@msn.com

Introduction

The Commonwealth of Independent States (CIS) has been formed as an attempt of preservation of political, economic, cultural and other relations between the nations of a former totalitarian country, in the institutional and economic and legal form. In the very beginning of its existence, the CIS fulfilled its historical task – it didn't let the events on the post-Soviet space develop into something undesirable such as bloodshed, as it, unfortunately, happened in the former Yugoslavia. The historical and economic relations between member states which existed within Soviet Union represent the foundation for the development of the Commonwealth of Independent States.

The CIS became one of the foreign affairs priorities of the member states which adapted the model of mutual cooperation on the basis of realistic (primarily economic) interests and priorities, which main goal was to create a free trade zone on the whole territory of the CIS. The CIS has become a guarantee for the sovereignty of the newly established countries and a realistic mechanism for preservation and development of the mutual economic and political relations between member states.

The integration processes in the Commonwealth of Independent States area are one of the priorities of foreign and economic policies of the Russian Federation, economically and politically most powerful state of the CIS. The economic and political relations between the CIS members, preserved after the dissolution of the Soviet Union, as well as the general geographical features, history, culture and tradition, psychology and, of course, mentality are the foundation for the development of the processes. The important factor is the Russian language used as a communication language, but the important issues are mutual problems and goals of the countries, social and economic development and economic modernization, regional security, national concurrency strengthening and provision of a decent life as well.

1. The establishment of the Commonwealth of Independent States

The Commonwealth of Independent States was formed on December 8th, 1991, in the suburb of Minsk, Belarus, when the leaders of Russia, Ukraine and Belarus, B. Yeltsin, L. Kravchuk and S. Shushkevich signed the Agreement on "forming of the Commonwealth of Independent States". By this document, the powerful Union of Soviet Socialist Republics (USSR) was erased from the map of the world. The administrative center of the CIS is located in Minsk, the capital of Belarus. The Commonwealth of Independent States consists of the following countries: Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine. The member states are independent and equal subjects of the international law.

The Commonwealth of Independent States (CIS) was established for the cooperation of new independent states in various areas, including relations that were a legacy of USSR. At the same time, the CIS played an important role in the transition of the post-Soviet states and complicated relations during new independent states establishment. The integration enabled sovereign countries to be created in a civilized manner and it also prevented geopolitical instabilities related to the process. The member states got an opportunity to satisfy their individual interests through the commonwealth.

The whole aspect of the mutual relations between newly established countries after the declaration of independence has been preserved. During the time, the CIS has created a new legal frame for the multilateral cooperation in the economic, humanitarian and safety spheres. The cooperation system has been institutionalized, but the role of the CIS as a unique platform for making political dialogue cannot either be disregarded, especially among the political leaders of the countries that are on the same space and which have been trying through the history to preserve, primarily, their national and economic interests through various forms of associations and cooperation.

The CIS still hasn't been fully integrated and many processes are ongoing. Some countries still don't recognize international legal subjectivity of the CIS and they limit cooperation within the CIS only to those areas they are particularly interested in. So, Ukraine and Turkmenistan are not signatories of the CIS Charter and they are not considered to be formal members of the CIS.

2. The efficiency of the organizational and institutional structure of the Commonwealth of Independent States

The problem of the efficiency of the organizational and institutional structures has been present from the very beginning of the CIS establishment. It is noticeable that the functioning of the nine main bodies defined by the Constitution, as well as about 70 other bodies dealing with coordination of the member states' activities has improved, especially after the period of crisis in 1997 and reforms conducted in 2007, which led to the more efficient functioning of the whole system. We can emphasize that the issues regarding efficiency of the organizational and institutional structure of the CIS were different in different stages of the CIS development.

In the first stage that lasted from 1991 to 1993, the former federal republics of the Soviet Union became politically independent sovereign national states, internationally recognized. In this period, each state independently started to form their financial, customs and other bodies. At the same time, the entire economic life and economy functioned within a unique economic space with a unique currency. An attempt to preserve unique market and mutual economic relations characterizes this period, but the history developed its own course. After the crisis deepened, the economy of the states weakened, inflation increased and mutual Soviet market and economy disappeared. (Косов Э. ТоропигинВ.,2009, pp. 37-38.).

The other and very important stage that lasted from 1993 to 1996 was marked with the end of the independence process of the newly established states, after the dissolution of the USSR. All the states established in this stage got the international legal subjectivity and membership in all important political and financial organizations and institutions. In this stage, it was noticeable that there was a development of the bilateral political and economic relations with other countries not members of the CIS, which resulted in creation of the economic alliance.

The agreement on creation of the economic alliance was signed by the heads of state, members of the CIS, on September 24th, 1993 in Moscow. Ukraine didn't sign the agreement, but in April 1994 it entered the agreement as an associate member. Turkmenistan signed the agreement in December of 1993. In those circumstances, the idea of the agreement was based on gradual forming of an economic alliance of the CIS, which would serve to implement economic potentials and increase of production, increase of exchange of goods and total increase of GDP of the CIS member states, which was in the first place an economic motive which everyone agreed upon when formed the CIS.

The president of the Russian Federation, Vladimir Putin, in his article published by Russian media (the Russian daily newspaper, on May 4th, 2011), explained the essence of the economic integrations on the post-Soviet space and the CIS itself: the establishment of the Customs Union and the Common Economic Space (CES) created a base for the future forming of Eurasian Economic Union. A mutual market on the territory of the CIS and mutual currency were planned even in the early stage of the agreement, and it anticipated free trade and a multicurrency system that still functions.

We can conclude that the ideological relations disappeared (not taking into account cultural, historical, lingual or some other connections on the CIS area) and that mutual connections this time were based on the political, practical and economic interests of the member states that strongly started to determine the path and destiny of all countries of the former Soviet Union, the CIS members at present.

The third stage, which could be called the big crisis stage in the functioning of the CIS, began in 1997. The thrill (if it existed?!) by the new integration processes entered the phase of a realistic comprehension of the problems and functioning of the CIS – first of all the malfunctioning of the

main bodies and non-implementation of the decisions that were brought by the same bodies. The problems existed in the bilateral and multilateral cooperation, as well as in the functioning of the CIS economy. It was thought that the CIS would not survive and that it would fall apart, which lead to Georgia's and Abkhazia's withdrawal from the Agreement on collective security (CSTO), as well as the introduction of the visa regime for Turkmenistan. At first, there was the opinion that the CIS was only a dead letter that functions by default, but the optimism based on economic prospects of the CIS, free trade, economic cooperation and creation of a new value prevailed.

Speaking of this period, it could be said that the CIS had an undefined status that lead into dissolution. The alternative was consolidation on the level of an interstate organization, confederation or even federation which could mean a historical step backward; therefore the federation is considered to be the least realistic.

The confederation, as an ultimate organizational and institutional concept of the CIS development, implies a mutual defense and foreign affairs policy in accordance with the recognized theories of state and law; but it is also considered an unrealistic approach, at least for now. Therefore, the most realistic option is for CIS to be a kind of an international regional organization with the status of the UN observer and a subject of international law.

The best way out of the functional crisis of the CIS was to increase cooperation at all levels and between all CIS member states. However, there were different interests and opinions about which direction the integrations should go, which lead to the establishment of the Central Asian Economic Community in October of 1997, with the code name GUAM (beginning letters of the states: Georgia, Ukraine, Azerbaijan, Moldova). Its creation and existence renders the character of the relations and interests of the CIS member states, as well as the geostrategic importance of the CIS for the western countries' interests.

When GUAM was formed, its first goal was to improve trade relations, economy and transport in the states mentioned previously. The issues of regional security were discussed as well. In April of 1999, Uzbekistan joined the Community, so the organization changed name to GUUAM.

In year 2000, GUUAM took several measures related to transport and trade of Caspian oil to western countries. In 2002, they even brought a decision on forming a free trade zone. Different interests and misunderstandings, as well as hesitation about whom to approach – west (EU, NATO) or east (CIS, Russia) led to malfunctioning of this alliance.

Uzbekistan was not active, Ukraine "had to" cooperate with the CIS and Eurasian Economic Union due to its needs for the Russian petrol. GUUAM almost didn't exist before 2003-2004, but with the change of political leaders in Ukraine (the Orange Revolution) and Georgia (pro-western Saakashvili came to power), GUUAM was reestablished primarily for the political goals of the new leadership of Ukraine and Georgia, approach to EU and NATO and, within the political frame, finding the best economic solutions for the member states of the organization far from Russia and the CIS, which was confirmed by the mutual statement issued immediately after the power takeover, when they expressed doubts about the future of the CIS.

The former president of the Ukraine, Yushchenko, a torchbearer of the "Orange Revolution" in Ukraine, preferred GUUAM to the CIS (Petrović D. Nikolić G., 2009, pp. 97.). In February of 2006, Georgia officially left the Council of Defense Ministers of the CIS, due to its policy toward NATO. On the other hand, Uzbekistan left GUUAM on spring of 2005, and Turkmenistan changed the status of full member to associate member of the CIS.

Ukraine, being as a very important link in the prospects of the CIS is still on the crossroad between EU and the East, due to its political importance, but mostly because of the economic potential and size. It seems that its direction depends on the speed of changes and economic integrations that will happen in the CIS member states. Ukraine is dependent on Russian energy-generating products. "Most of the Eastern and Southern Ukraine leans on common Russian origin, on integration processes in which there is also a Russia (the CIS, Common Economic Space) and it supports regionalization of Ukraine, entrance to the EU, but not to the NATO. The Western Ukraine, beside affirmation of the Ukrainian language versus Russian, accepts regional integrations

and the entrance into EU, but the parallel participation in the CIS processes as well. (Petrović D. Nikolić G., 2009, pp. 237.)

According to the opinion of the analyst Sheli (Eremenko A., 2014), the withdrawal of Ukraine from the CIS would not be important for the organization because it has already been dead for a long time. However, Zatulin represents the opposite point of view; he thinks that Ukraine is the one who has always obstructed the CIS operations. Anyhow, the withdrawal of one of the countries from the regional organization is not good for other members.

The main goals of the CIS are political and economic and financial sovereignty which has been defined during the crisis period in 1997. We can conclude that the institutional system of the CIS evolved thanks to the concrete development of the situation in the field. The big reform of the CIS further development concept happened 10 years after the crisis had occurred and it was characterized by the mutual attitudes of the CIS member regarding further development, goals and directions.

A new concept defined the CIS as an international organization of the equal and independent states. According to the concept from 2007, some of the member states had unlimited participation in functioning of the CIS bodies and adopting documents, which was determined by their specific national interests. Also, by the new concept, it was confirmed that there were different levels and forms of cooperation in the CIS, with the principle of consensus at decision making.

According to the concept, the main goal of the CIS is long-term prospects of the politically and economically integrated CIS. Each state should provide its development and at the same time the economic and social stability, international security and good neighborly relations. In particular, there were economic directions of further development, increase of economic concurrency of the member states and their integration into economic global streams, following the life standards and enabling easier entrance to the WTO (World Trade Organization) of each CIS member state.

The development of humanitarian cooperation, democracy and human rights, compliance with the fundamental international principles, improvement of dialogues between the member states, and bilateral and multilateral cooperation are among the goals of the CIS in the new concept. According to the document, the main priority of the CIS is economic cooperation and improvement of trade relations, which actually is a prerequisite for sustainable development of the CIS. (Смитиенко Б.М., 2008). The economic relations in the CIS develop on trade principles, mutual respect and appreciation of the interests of all member states. The main economic goals of the CIS are to form a free trade zone and to develop further in accordance with the principles and rules of the WTO.

In the new concept of the CIS, the attention was paid to the mechanism of the functioning and improving the CIS, which implies rationalization and reorganization of the CIS bodies, in compliance with the international and legal standards. The competences of the bodies were clearly established, where the Council of the Heads of the CIS member states arranges the direction of the CIS development, considers conceptual and strategic matters and tasks and economic and political cooperation as well.

The essence of the changes in 2007 has reflected on the CIS bodies and institutions structure functioning and adapting to the new tasks and needs, and economic integrations goals achievement in the area of former Soviet Union as well.

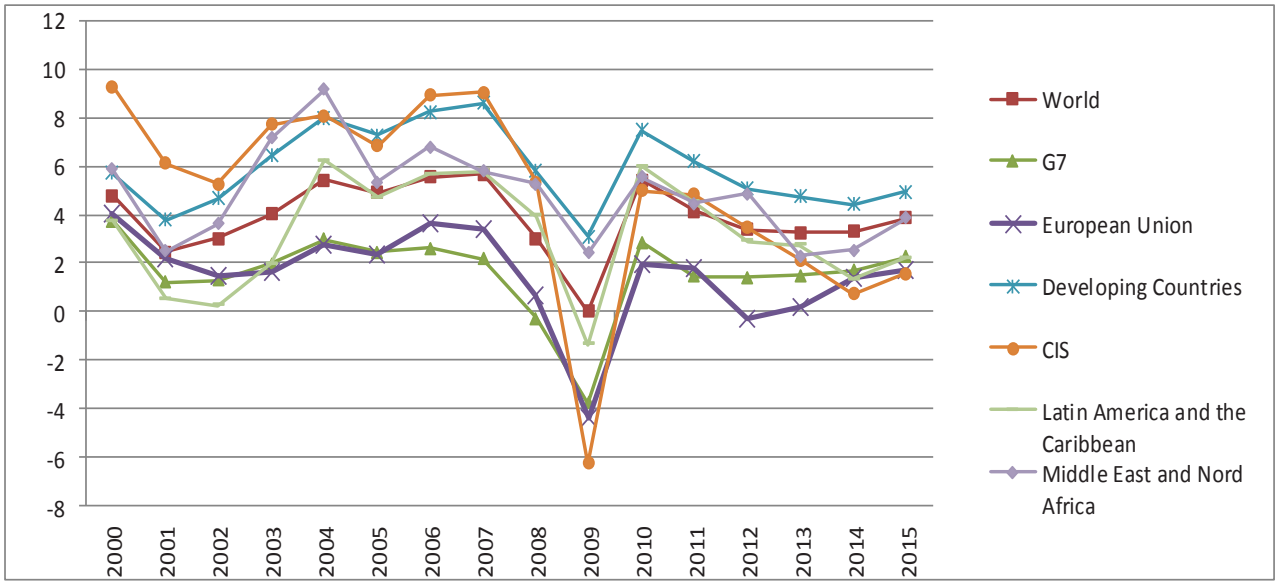
3. Indicators of economic development of the Commonwealth of Independent States

The members of the CIS, comparing with other similar regional organizations and communities, show good results of economic development, which opens the door for other countries to joining the CIS in the future. The Customs Union, founded in 2007 within Eurasian Economic Union, has already proven good results, which confirms the attention the EEC gets from the nearest European neighbors.

According to the indicators of IMF for 2014, the global GDP increased 3,31%. However, according to this indicator developed countries lag behind: the members of Eurozone increased their GDP 0,83%, and GDP of seven most developed countries in the world G-7 increased 1,71%. At the

same time, the CIS member states increased their GDP in 2014 only 0,75%, which has been the lowest growth rate in the last 15 years (if we exclude the decrease of 6,24% in the year of the global economic crisis). In this year, it is expected that the GDP growth rate in the CIS increases 1,58%.

Chart 1. GDP growth rate at constant prices, %

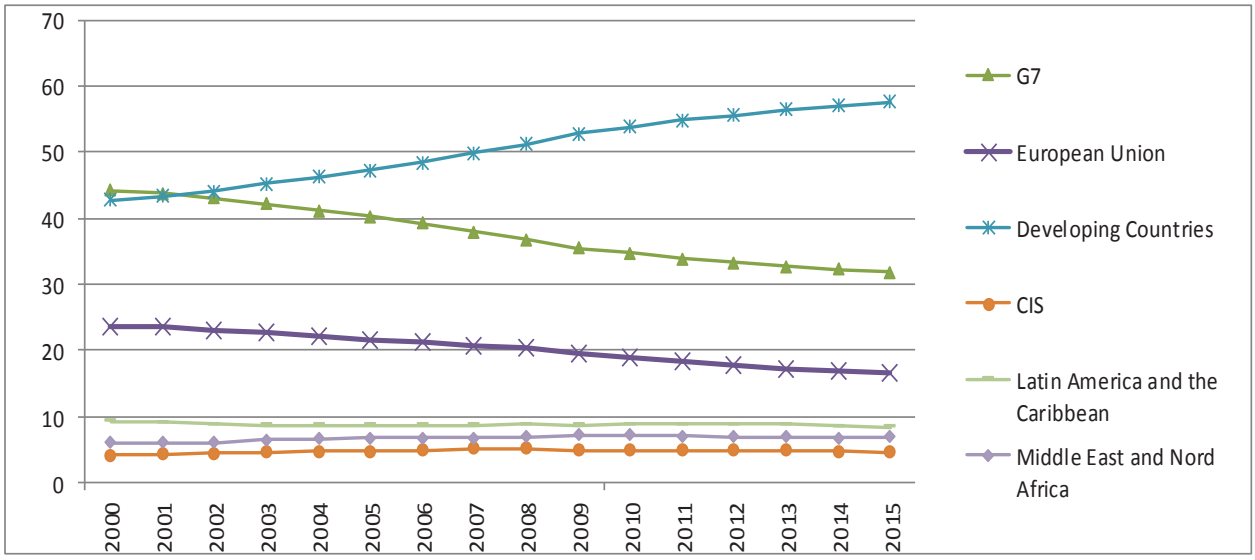


Source: Author's analysis of data downloaded from http://www.imf.org/

Chart 2 shows that the GDP share of the developing countries in the global GDP increases, while the share of developed countries decreases. In the period from 2000 to 2015, the share of the CIS member states in the global GDP increased 0,47%. For comparison purposes, the growth of the GDP share of the Central and East Asian countries in the same period was 0,15%. The leading countries are again Asian countries (whose GDP share increased 10,71%). It is important to emphasize that, according to the forecast of the International Monetary Fund[132],the trend rate of the GDP share of Eurozone and G7 countries in the future period will not change, and the share is expected to decrease, while the share of the CIS members will stay on the level of 4,3% - 4,4%.

[132]IMF World Economic Outlook 2013 (WEO): *Hopes, Realities, and Risks*, page 46.

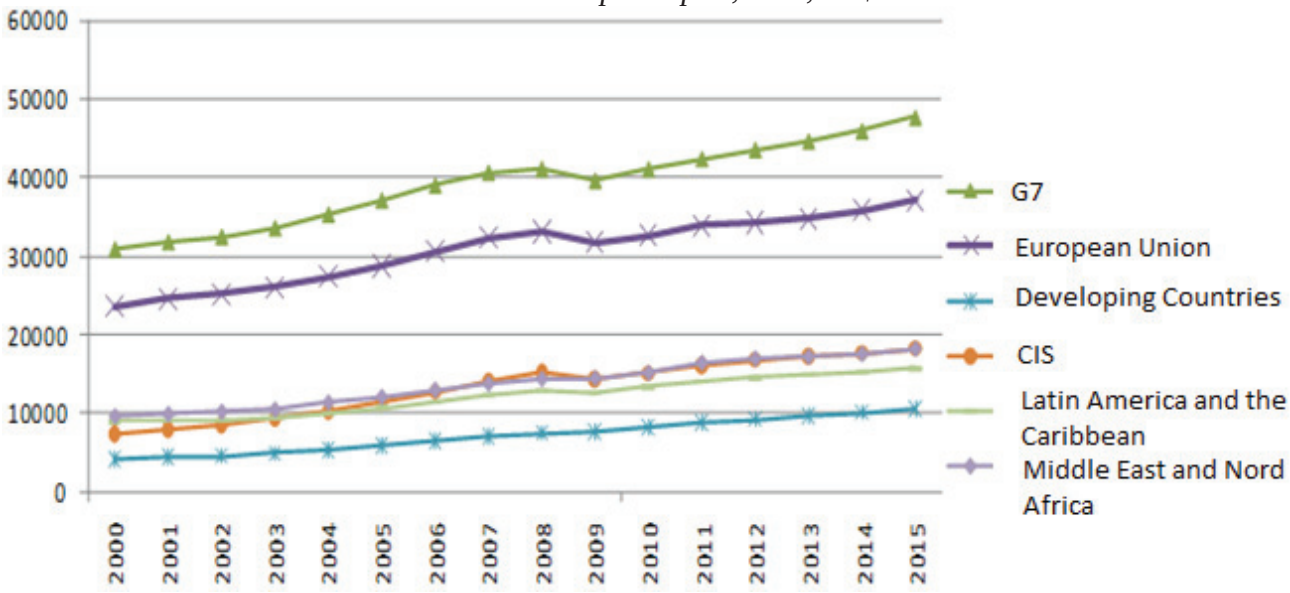
Chart 2. Dynamics of GDP share in global GDP



Source: Author's analysis of data downloaded from http://www.imf.org/

The CIS members show success in improvement of life standards of their citizens, presented in GDP per capita. At the end of 2014, it reached the level of 17.640 US$. They left behind the countries of Latin America and Caribbean, and the Middle East and North Africa countries.

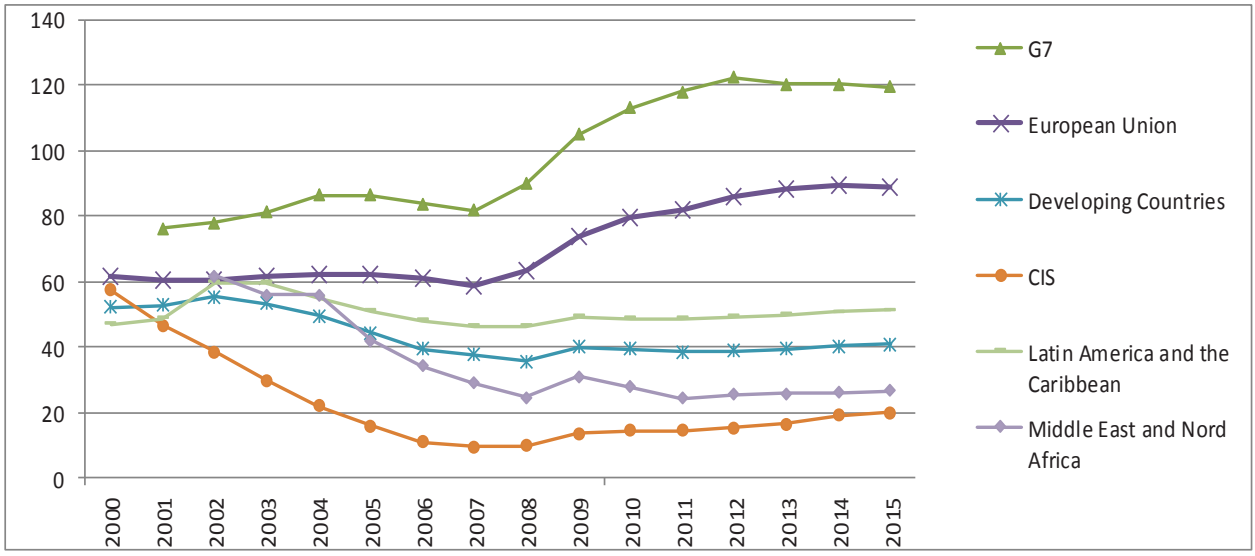
Chart 3. GDP per capita, PPP, US$



Source: Author's analysis of data downloaded from http://www.imf.org/

The problem of public debt is a nightmare for many countries in the world. Chart 4 shows that the richest countries in the world, the G7 countries, have the highest public debt to GDP ratio of 119,48%. Speaking in amount of money, the public debt of the G7 countries is 16 times higher than total debt of all CIS members. In the chart, it can be seen that the indicators of public debt to GDP ratio of the CIS members are very low. In 2014 it was 18,88% for the members of the Commonwealth of Independent Countries, which is by far the lowest share of the public debt to GDP ratio, comparing to developed and developing countries.

Chart 4. Public debt share to GDP ratio, %



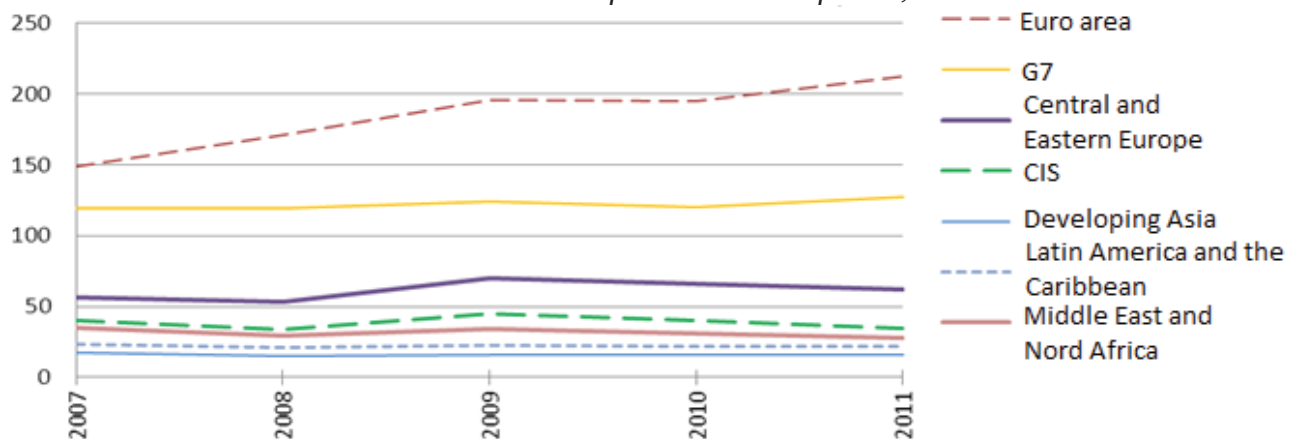
Source: Author's analysis of data downloaded from http://www.imf.org/

Total public debt consists of all obligations that require interest and/or principal payment in future. It includes SDR debts (Special Drawing Rights – a reserve asset for payment issued by IMF), currency, debenture stocks, loans, insurance, pensions, standardized securities and other accounts.

Beside the public debt of a country, an important indicator of economic development and welfare is a share of external debt of GDP. We need to say that the developed countries are keeping up with trend of increase of external debt that grows higher than GDP growth rate. It means that the share of external debt in GDP grows constantly. It is particularly visible in the Eurozone countries whose indicators rapidly worsened during the economic crisis in 2009, when the external debt reached the level of 196% of GDP, and after 2011, the total external debt of the Eurozone countries exceeds dramatic 200% of GDP. (In 2007 the external debt of Eurozone countries was 149%, and the trend is still negative).

In this sense, the CIS members are more careful: in 2009, the share of external debt in GDP of the CIS increased from 34% to 45%. However, last year it decreased to 34% again. According to the forecast of IMF, the share of external debt of GDP of the countries members of the Commonwealth of Independent States will decrease for 1% in this year, which is, comparing to Eurozone, another indicator of successful economic integrations of the Commonwealth of Independent States.

Chart 5. The share of external debt of GDP, %

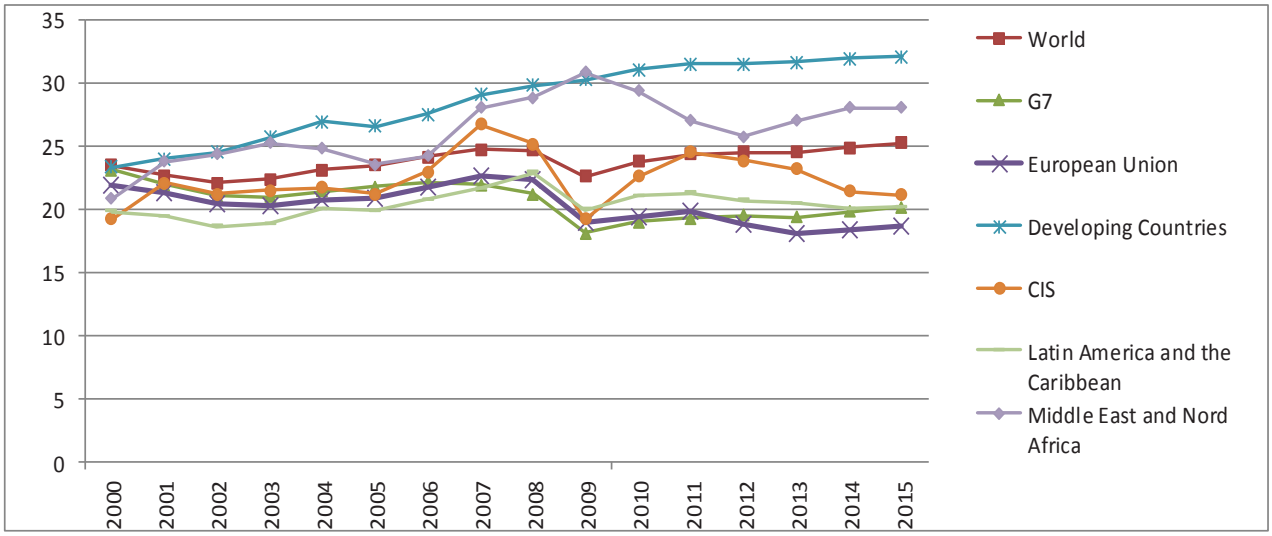


Source: Author's analysis of data downloaded from http://www.imf.org/

An important indicator such as co-investments must not be left out in the analysis of economic indicators. The average level of the investments in regard to GDP in the last ten years has varied from 21% to 24%. The world leaders in investing are Asian countries, which are developing actively. In 2014, their investments reached the level of 42,33% of GDP.

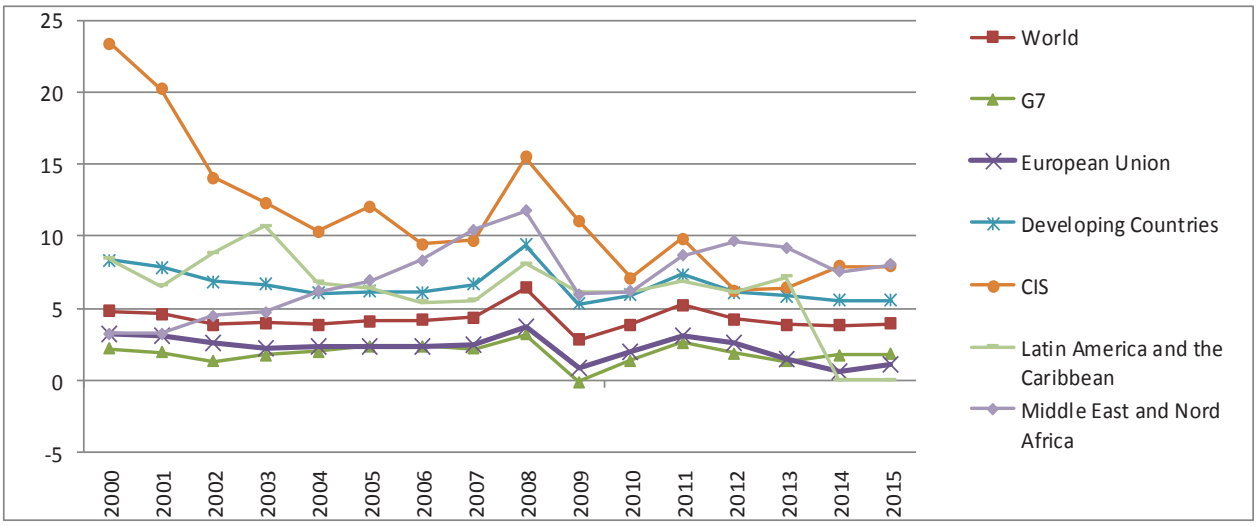
At the same time, the CIS members that decrease the amount of investments in crisis period are trying to improve indicators they had before the crisis. Their investments are 21,37%, which is also the world average. According to the forecasts in 2015, the investments in the CIS members would decrease up to 21,07% of GDP.

Chart 6. Share of investments in GDP, %



Source: Author's analysis of data downloaded from http://www.imf.org/

Chart 7. Inflation, %



Source: Author's analysis of data downloaded from http://www.imf.org/

The inflation in the CIS is in a declining trend, if we exclude a period of crisis for the CIS, where the inflation grew for 15%. In comparison to other developing countries, the inflation is somewhat higher in the CIS, while the lowest inflation rate is in the most developed countries, the members of G7 and the European Union. After the crisis escalation in Ukraine, the inflation grows again, and it is expected to reach the level of almost 8% this year.

Conclusion

The Commonwealth of Independent States (CIS) was established for the cooperation of new independent states in various fields, which at the same time prevented geopolitical instability related to the process. A cooperation system in the fields of economy and trade has been institutionalized, and a role of the CIS as a unique platform for political dialogue became very important.

However, the problems of the efficiency of the organizational and institutional structure existed from the very beginning of the CIS establishment, different issues in different stages of the CIS development. The culmination of the problems happened in 1997 when many experts though that the CIS would dissolute. Still, this period remained just a big crisis period for the integration, which was overcome by the reorganization in the functioning of the integration bodies. The cooperation between the countries improved, but the interests of the member countries remained different.

In 2007, a new concept defined the CIS as an interstate organization of the equal and independent countries whose main goal was to fulfill long-term prospects of the politically and economically integrated CIS. Also, each country should provide its own development and at the same time, the economic and social stability, international security and a good neighborly relations.

The economic indicators confirm that the creation of a regional integration in the area of former USSR brought more benefit than damage to member states. The GDP growth is higher than world average and it has a tendency of growth in the future. The share of GDP of the CIS members in the global GDP has increased in the last ten years, and it is anticipated that it will remain stable in the next three to five years. The indicators of public debt to GDP in the CIS member states are minimal, and even better than the ones in most countries in the world, while the external debt to GDP ratio is decreasing.

Literature

1. Eremenko A., *Ukraine Leaving CIS Shoots Down Kremlin's Imperial Ambitions*, The Moscow Times, May 27th, 2014 .http://www.themoscowtimes.com/news/article/ukraine-leaving-cis-shoots-down-kremlins-imperial-ambitions/501001.html
2. IMF World Economic Outlook 2013(WEO): *Hopes, Realities, and Risks*
3. IMF Data.http://www.imf.org/
4. Косов Э., ТоропигинВ., (2009). *Содружество Независимых Государств*, Москва
5. Petrović D., Nikolić G.,(2009). *The geopolitics of modern Ukraine*, Institute of International Politics and Economy, Belgrade
6. Russian daily newspapers, „*Izvestija*“, article published on November 4th, 2011.
7. СмитиенкоБ.М. (2008). *Интеграционный процесы СНГ, тенденции, проблемы, перспективы*.

ROLE OF THE STATE IN SMALL AND MEDIUM-SIZED ENTERPRISES DEVELOPMENT AND POVERTY ALLEVIATION: EVIDENCES FROM BOSNIA AND HERZEGOVINA

Meldina Kokorović Jukan, PhD[133]

Amra Babajić, MSc[134]

Abstract

Private sector plays one of the key roles in the economic development and poverty reduction, while at the same time the state needs to provide sound economic environment for efficient functioning of enterprises. There is a growing concern among academia about the fact that existing growth patterns of developing countries are not orientated towards the needs of the poor and that economic reforms are not adequately structured to support poverty alleviation through economic growth and development.

During the 1980s, economic reforms in most of the developing countries emphasized the need to provide favorable economic environment for private sector development. Traditionally, the main concern was to create supportive environment on the macroeconomic level by building institutions and infrastructure capacities. Support to private sector was provided through development of significant types of financial products and financial services, but this focus on the demand side to boost investment climate was not enough to assure pro-poor economic growth. Research shows that mayor obstacle in private sector development and therefore, SMEs sector and entrepreneurs, is restricted of access to different types of services, such as financial services, technical knowledge, and business development services. In that respect the role of the state is very important to assure both institutional and legal environment for SMEs sector and entrepreneurs which at the end contributes to poverty reduction.

This paper provides theoretical background and empirical evidences on the importance of the state's role in the development of SMEs focusing on the poverty alleviation. The main goals of the paper are to determine if the state by its measures contributes to private sector development and to poverty alleviation in Bosnia and Herzegovina (BiH) and, based on the empirical research, to provide recommendation on the future steps of state intervention in strengthening SMEs which can contribute to poverty reduction in BiH.

In order to determine whether the state measures contribute to SMEs sector development and to poverty alleviation in BiH, an empirical research was conduct. For the purposes of the research a structured questionnaire was sent to 250 small and medium sized enterprises (SMEs) and to the relevant government institutions on the state, entity and cantonal.

Based on the results of the empirical research it can be observed that private sector is not satisfied with the government measures supporting enterprises and it was concluded that the state needs systematic approach to creating sound legal, institutional and economic environment for development of SMEs sector.

Keywords: *SMEs sector, entrepreneurship, poverty alleviation, the state*

[133] Faculty of Economics, University in Tuzla, Bosnia and Herzegovina, e-mail: meldina.kokorovic@untz.ba

[134] Faculty of Economics, University in Tuzla, Bosnia and Herzegovina, e-mail: amra.babajic@untz.ba

Introduction

In most of the developing countries private sector is responsible for the increase of economic activities as well as for the increase of productivity, which has poverty reduction as an overall result. Therefore, development of SMEs sector in competitive sectors of developing countries is of utmost importance. In order to SMEs take over the role of economic growth generation, unemployment and poverty rate reducers, the state needs to create positive economic environment for development of enterprises.

For the purpose of this research we consider entrepreneurship defined by the Cole A.H. as the purposeful activity of an individual or a group of associated individuals, undertaken to initiate, maintain or aggrandize profit by production or distribution of economic goods and services (Cole, A.H., 1959, p. 7), where entrepreneurship is related to creation of the new and profit-oriented business under private ownership, and therefore, any SME may be considered an entrepreneurial initiative.

In order to private sector to develop, the state needs to create conditions for establishing new SMEs and assure their sustainable growth. This paper discusses theoretical background and empirical evidences on the importance of the state in development of SMEs focusing on the poverty alleviation. The main goals of the paper are to determine if the state by its measures contributes to entrepreneurial development and to poverty alleviation in BiH, and based on the empirical research, to provide recommendations on the future steps of state intervention in strengthening enterprises which can contribute to poverty reduction in BiH.

In the first part of the paper a theoretical background on the importance of the state in private sector development is given, focusing on the SMEs contribution to poverty reduction. The second part of the paper provides an overview of previous research on the subject of the state's role in process of private sector development and its ability to deliver economic growth and poverty reduction. In the third part of the paper a research results of perceptions of SMEs and government institutions representatives of the BiH government activities in creating positive environment for SMEs to assure poverty alleviation are presented and discussed.

For the purposes of the research a structured questionnaire was sent to 250 small and medium enterprises (SMEs) and to the relevant government institutions on the state, entity and cantonal level such as Federal Ministry of Development, Entrepreneurship and Crafts; Federal Ministry for Programming Development; Agency for Development of Small and Midsized Enterprises of Republic of Srpska; Government of Brcko District – Development Grant Fund of Brcko district; Federal Ministry of Energy, Mining and Industry; Ministry of Foreign Trade and Economic Relation of BiH, as well as to ten cantonal ministries of entrepreneurship.

Theoretical Background on the State's Role in Poverty Reduction through Development of Small and Medium-Sized Enterprises

Private sector is the most important key for assuring a sustainable economic growth and job creation. In that respect, government efforts should be directed to enforce policies and create positive environment for promoting its development. In creating positive economic environment for entrepreneurship and SMEs development,[135] which are the core of private sector, the state role is to assure proper regulations, while at the same time its role is to act as a partner to the private sector.

[135] In this paper distinction between entreprenuers and SMEs is not taken into the consideration. Entrepreneur is a firm in the early stage of entrepreneurial activity. In accordance to the GEM methodology, the early stage of entrepreneurial activity is defined as a period of the first 3.5 years or 42 months of doing business. Entrepreneurial firm can be classified to category of SMEs by defining parameters of SMEs, such as the number of employees and total revenues.

When it comes to poverty reduction simple solution does not exists. There is no one single model that fits all. Poverty would be solved only when government creates more relaxed environment for economic activities. Poverty would not be eradicated through large project bearing low interest rates. It is the entrepreneurial based strategy that would give adequate base for future generations to fight poverty (Griffiths and Tan, 2009, p. 46).

Singer (2006) emphasis that the best cure for poverty reduction is boosting business and entrepreneurial activities, through entrepreneurship development, while Adenutsi (2009) suggests that entrepreneurship provides a new approach for fighting poverty and stimulating economic growth in developing countries. Entrepreneurship, to a very large extent, narrows the income gap and delivers a consistent mechanism for earning incomes, and thereby reduces income inequality and poverty substantially (Adenutsi, 2009, p. 9).

To assure poverty reduction, firms need to play by certain rules and to be able and willing to co-operate. They need to respect property rights and contracts so that they have incentives to invest and cooperate with buyers and suppliers. They also need to respect a variety of regulations that condition their property rights - to ensure that products and production processes fit society's expectations about socially and environmentally sound practices. Under such rules, which require government enforcement, small and large firms emerge symbiotically, trading and contracting with each other (Klein, 2003, pp. 18-19).

In competitive environment, it is the government, invariably, that provides distinctive advantages to firms: high savings and low interest rates for investment, sound property rights and good governance, a technologically motivated and committed workforce, a low rate of inflation, and a rapidly expanding domestic market. (Vietor, 2007, p. 1).

Private sector is an engine that spread the best practices and open new work places, but it needs routines that are not always effective and sustainable. Cooperation between government (regulation) and enterprises is the integral part of dynamical social system and promises the increase of wealth and reduction of poverty. For private sector to contribute to faster economic growth and poverty reduction, government institutions agencies capable to enforce rules needs to be established.

Forming a network of government institutions to support private sector is imperative for entrepreneurial sector development, and speeding up economic growth. The following results can be achieved if proper government institutions are in place (Avlijas, 2008, p. 73):

- Maximal use of development potential of large and existing enterprises;
- Capacities for professional services (consulting, educational, etc.) are being developed;
- By steering the community towards entrepreneurship, sense of ownership and responsibility is being developed;
- Equal opportunities for all enterprises. It is easy to fall in to the trap of helping well established entrepreneurs, while neglecting microenterprises;
- Encouraging partnership between institutions.

In order to assure poverty reduction, indirectly through private sector development, governments need to ensure adequate policies. These policies need to include the following five interlinked and mutually reinforcing factors: (1) providing incentives for entrepreneurship and investment, (2) increasing productivity through competition and innovation, (3) harnessing international economic linkages through trade and investment, (4) improving market access, and (5) functioning, and reducing risk and vulnerability. These factors are brought about and influenced by

policies and institutions, including “rules of the game” and mechanisms for their conception, application and enforcement (OECD, 2006, p.10).

Moreover, governments need to empower financial sector to respond to growing demands of SMEs sector. The major challenge for financial systems development in the most of the developing countries is assuring access to formal financial sources (products and services) to the poor. It is important to emphasize that the state’s role in financial system development is extremely important. Through regulation and supervision, the state needs to create secure and stable environment for financial institutions and markets to develop. In that respect, government is responsible for creating stimulative environment for development of banks and other financial institutions, ensuring guarantees and subventions for enterprises, and removing financial and administrative barriers for new businesses and development of existing enterprises.

Lastly, institutional and policy reforms are consequently at the heart of efforts to reduce poverty through private sector development, and therefore, reforms are often difficult, need involvement and interaction, and mutual understanding between the state and private sector.

Literature Review

Theoretical (Jovanovic, 1982; Ericson and Pakes, 1995; Audretsch, 1995; Lambson, 1991 Hopenhayn; 1992, and Klepper, 1996) and empirical (Reynolds, Storey and Westhead, 1994; Reynolds, Miller and Maki, 1995; Audretsch and Fritsch, 2002) research shows the existence of positive relation between entrepreneurship activity increase and economic growth. As an example, Reynolds, Miller and Maki (1995) find that the degree of entrepreneurship has a positive impact on regional economic growth in the United States, while Audretsch and Fritsch (2002) find that this relationship for Germany shifted from negative in the 1980s to positive in the 1990s, confirming theoretical background on the relation between economic growth and entrepreneurial activity.

Relevance of the relationship between entrepreneurship and poverty alleviation has been shown is several empirical research papers (e.g Carree and Thurik, 2008; Van Praag and Versloot, 2007). In respect to the relation between entrepreneurship and decline in poverty, research shows positive relation. Statistical analysis of all 50 states in USA indicates that states with a larger share of entrepreneurs had bigger declines in poverty. In fact, comparing states during the last economic boom—from 2001 to 2007—data show that for every 1 percentage point increase in the rate of entrepreneurship in a state, there is a 2 percent decline in the poverty rate (Slivinski S. 2012:1)

In respect to the state’s role in poverty reduction, empirical researches show that in the early 2000s majority of countries (in OECD region) were focusing on macroeconomic policies and instruments for generating economic growth and reducing unemployment. Audretsch, D. B. and R. Thurik (2001) suggest that an additional set of instruments related to policies enabling the start-up and viability of small firms may also be valuable in generating growth and reducing unemployment. Furthermore, they find that countries reluctant to shift their economies towards small and midsized enterprises would generate lower growth rates and higher unemployment, while those countries who uses the technology and globalization through entrepreneurial activity would achieve higher growth rates and would reduce unemployment.

Moreover, research shows that government needs to focus on the policies for financial sector development and on creation of positive financial environment for promoting entrepreneurial activities, and therefore, reducing poverty. Most recent empirical study shows existence of significant positive effect of financial system development on poverty reduction, where countries with more developed financial systems are more likely to have lower poverty rates. (Akhter et al. 2010; Ho S. and Odhiambo, N. M , 2011; Azra. D et al. 2012; Uddin, G. S. et al. 2012).

Honohan (2004) shows that correlation between financial development and sustainable economic growth needs to be drawn by more comprehensive statistics than merely banging sector depth. Furthermore, Quartey (2005) investigated the relation between savings mobilization and poverty reduction showing the existence of correlation between the two variables, but emphasizing the role of the government and its policy in stimulating domestic savings. It was also observed that institutional quality and adequate regulation of financial institutions play a crucial role in positive relationship between financial system development and poverty reduction (Dhrifi, 2013).

Empirical Evidences from Bosnia and Herzegovina on the State's Role in Small and Medium-Sized Enterprises Development and Poverty Alleviation

Methodology and Sample

For the purposes of assessing government involvement in BiH in strengthening private sector oriented towards economic growth and poverty alleviation, we conducted an empirical research among SMEs and government bodies. The aim of the research was to better understand perceptions of the SMEs as the most important creator of work places, as well as of the government agencies representatives about the level of government role and involvement in two areas identified as the most important drivers of poverty reduction. Those areas are: strengthening financial sector, and creating positive entrepreneurial ambient through technical support for new and existing enterprises.

In order to collect research data two types of questionnaires were created, one for SMEs and one for government representatives. The questionnaires were structured to collect data about government policies and actions impacting private sector development and poverty reduction. Questionnaire for SMEs included thirteen questions, while the one for government bodies included eighteen questions.

The sample of the surveyed SMEs was created based on the partial data on the number and types of SMEs from the Indirect Taxation Office of B&H and the Agency for Statistics of B&H, since the state level database of SMEs operating in BiH does not exists. Having in mind the sample would be rather large to collect data, it was decided to include 250 SMEs in the samaple. Size and structure of the sample of the surveyed SMEs is shown in the table 1.

Table 1: Size and structure of the sample of the surveyed SMEs

Group	Number of emplyees	Type of SME	Stratums		Sample	
			Number of enterprises	%	Number of enterprises	Number of enterprises in the sample
1	0 – 10	Micro Entreprise	31.102	78,58	196,45	197
2	10 – 50	Small Entrepries	6.539	16,52	41,3	41
3	50 – 250	Mid-sized entrepries	1.938	4,90	12,25	12
∑			39.579	100,00	250,00	250

Source: Authors research

The survey of government institutions included the following institutions: Federal Ministry of Development, Entrepreneurship and Crafts, Federal for programming development, Agency for Development of Small and Midsized Enterprises of Republic of Srpska, Government of Brcko District – Development Grant Fund of Brcko district, Federal Ministry of Energy, Mining and Industry, Ministry of Foreign Trade and Economic Relation of B&H, and ten cantonal ministries of entrepreneurship.

The survey was conducted in the period from May to November 2014, by e-mail, phone and direct contact with the surveyed entities. The rate of response among SMEs was 50%, while among government institutions was 81%.

Research Results and Discussion

The survey shows negative perceptions among SMEs to the state's role in financial sector development and its contribution to enterprises development, and therefore, to poverty reduction. Figure 1 shows results of the surveyed SMEs level of agreeing with different aspects of government (state) support to financial sector development.

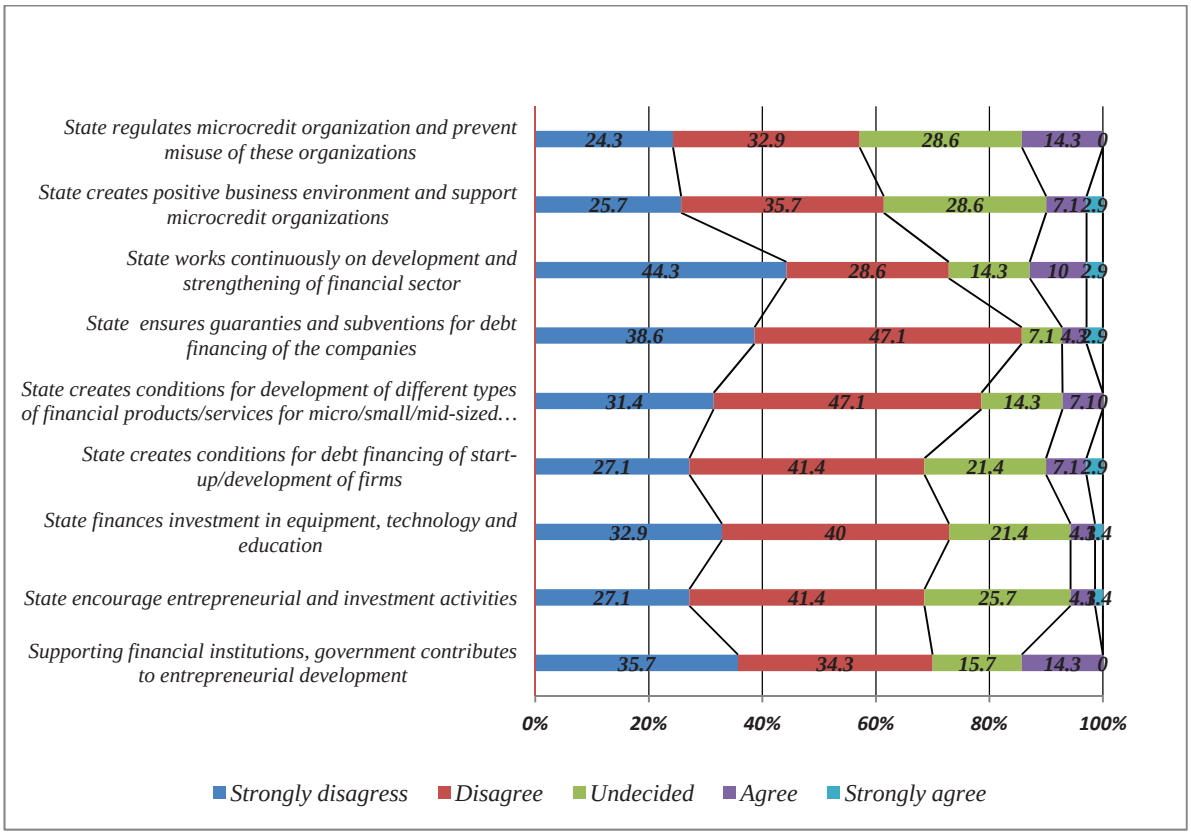


Figure 1: Perceptions of SMEs on the state's role in financial sector development
Source: Authors research

As figure 1 shows, 23% to 44% of the surveyed SMEs strongly disagree, while 28% to 41% of the surveyed SMEs disagree that the state support financial sector development oriented towards helping SMEs sector.

Majority of the surveyed SMEs disagree that state:

- ensures guaranties and subventions for debt financing of the companies (85,7% of the surveyed SMEs),
- creates conditions for development of different types of financial products/services for micro/small/mid-sized companies (78,5% of the surveyed SMEs), and
- work continuously on development and strengthening of financial sector 72,9% of the surveyed SMEs).

Furthermore, research results show that the most of the surveyed SMEs are either negative or neutral towards the state regulation of microcredit organization and prevent misuse of these organizations, state's role in creating positive business environment and support to microcredit

organizations, and the state support to financial institutions in its contribution to enterprise development.

It is interesting to observe that less than 15% of the surveyed SMEs expressed positive attitude towards the state's role to financial sector development and its impact to enterprise development.

In contrast to SMEs negative perception, the survey shows more positive attitude among government bodies of the state's role in financial sector development. Results of the survey are shown on figure 2.

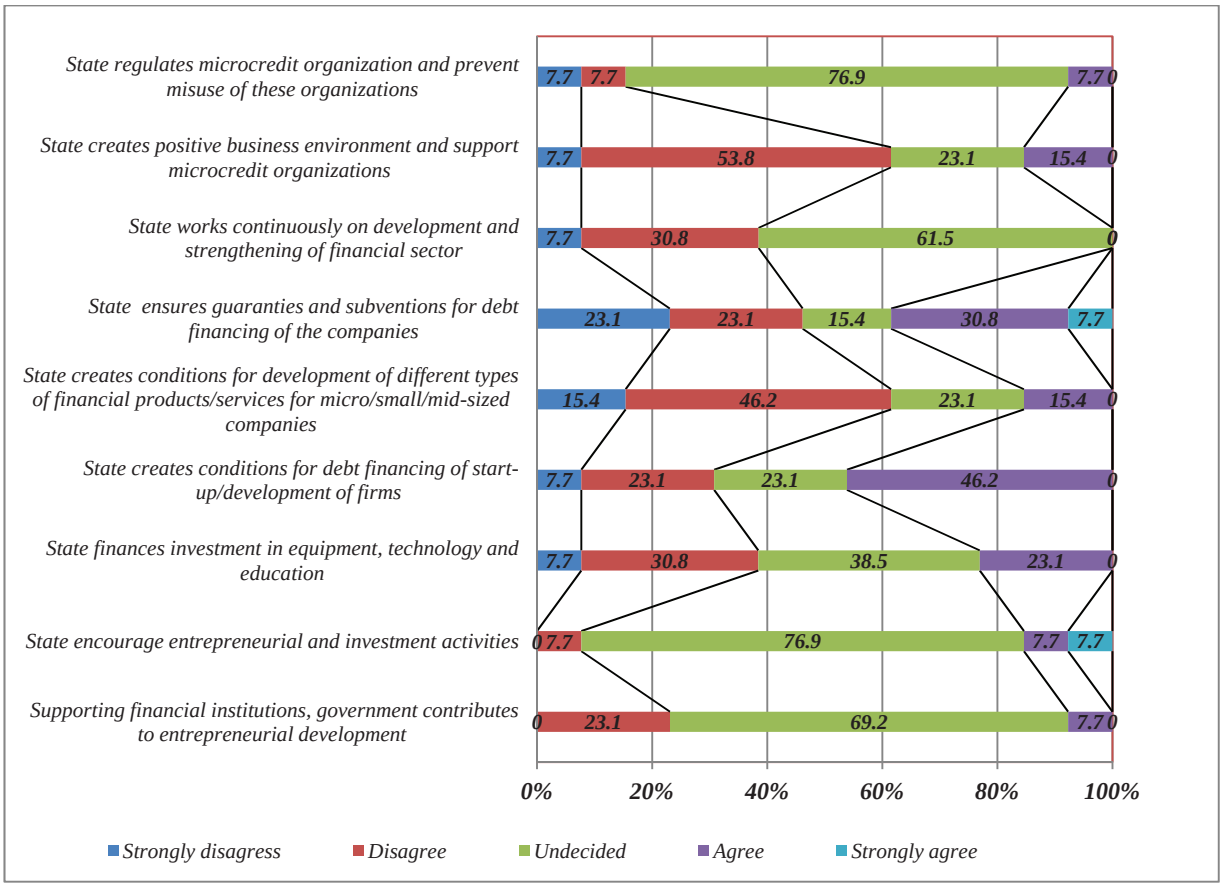


Figure 2: Perceptions of government bodies on the state's role in financial sector development
Source: Authors research

Majority of the surveyed government bodies are undecided (neutral) towards the statements related to state policies related to enterprise development through strengthening the financial sector. Government bodies agree that the state does not create conditions for development of wide range of financial products/services for micro/small/medium enterprises, and moreover, does not create positive environment and financial support for microcredit organizations. In contrast to the perceptions of the surveyed SMEs, government bodies express positive attitude towards the state's role in creating the conditions for debt financing for start-ups and enterprise development, as well as towards the state's role in ensuring grants and subventions for debt financing of SMEs.

Using discriminant analysis existence of the significant difference among attitudes between private and government sector on the state's role in strengthening financial sector was tested. In that respect, one discrimination function was determined, where the function describes 100% of the variation of the between groups variation, which is shown in table 2.

Table 2: Discrimination analysis for the state's role in strengthening financial sector

F	eigenvaules λ	% of Variance	Cumulative %	Canonical Correlation r_c	Wilks' Lambda λ	Chi-squared χ^2	df	Sig.
1	0,278	100	100	0,467	0,782	18,788	9	0,027

Squared canonical correlation (r_c), the effect sizes for the discriminant functions, is ($0,467^2$)=0,278. Wilks Lambda is rather high (Wilks λ=0,782) showing low discrimination strength of discriminant functions. Chi-squared test (χ^2) for function 1 is statistically significant (χ^2=18,788, sig.=0,027), showing that discrimination model is significant, and therefore can adequately measure group membership, but determined differences between groups are rather small.

Table 3 shows discriminant function coefficients and group centroids for the state's role in strengthening financial sector.

Table 3: Discriminant function coefficients and group centroid for the state's role in strengthening financial sector

	Discriminant Coefficient (DC)	Group	Centroid
State encourage entrepreneurial and investment activities	0,823	Private sector	-0,225
State ensures guaranties and subventions for debt financing of the companies	0,629		
State creates conditions for debt financing of start-up/development of firms	0,624	Government	1,209
State finances investment in equipment, technology and education	0,569		
Supporting financial institutions, government contributes to entrepreneurial development	0,536		

* Difference does not exists

Table shows differences between observed groups for chosen variables in hierarchical order. The mayor difference in perceptions among private and government sector is observed in respect to the following: state's role in encourage entrepreneurial and investment activities (DC=0,823), and state's role in ensuring guaranties and subventions for debt financing of the companies (DC=0,629). On the other hand, there is no significant difference between perception among private and government sector on the state's role in creating positive business environment and support microcredit organizations.

It can be observed that even some differences in perceptions among private and government sector, on the multivariation level, do exists, where private sector gives lower grade that government bodies for the state's involvement and contributions to financial sector development, those differences are rather insignificant.

In respect to the state's role in proving technical support to enterprises with purpose of strengthening SMEs sector, government can contribute by creating attractive business environment. This can be achieved by government providing technical support for faster and easier registration for new enterprises, providing business services such as business incubators, business zones and development agencies, assuring equal access to support instruments, as well as development of exports strategies.

The research results show relatively negative perceptions of the surveyed SME's in regards to the state's role in providing technical support to enterprises (see figure 3).

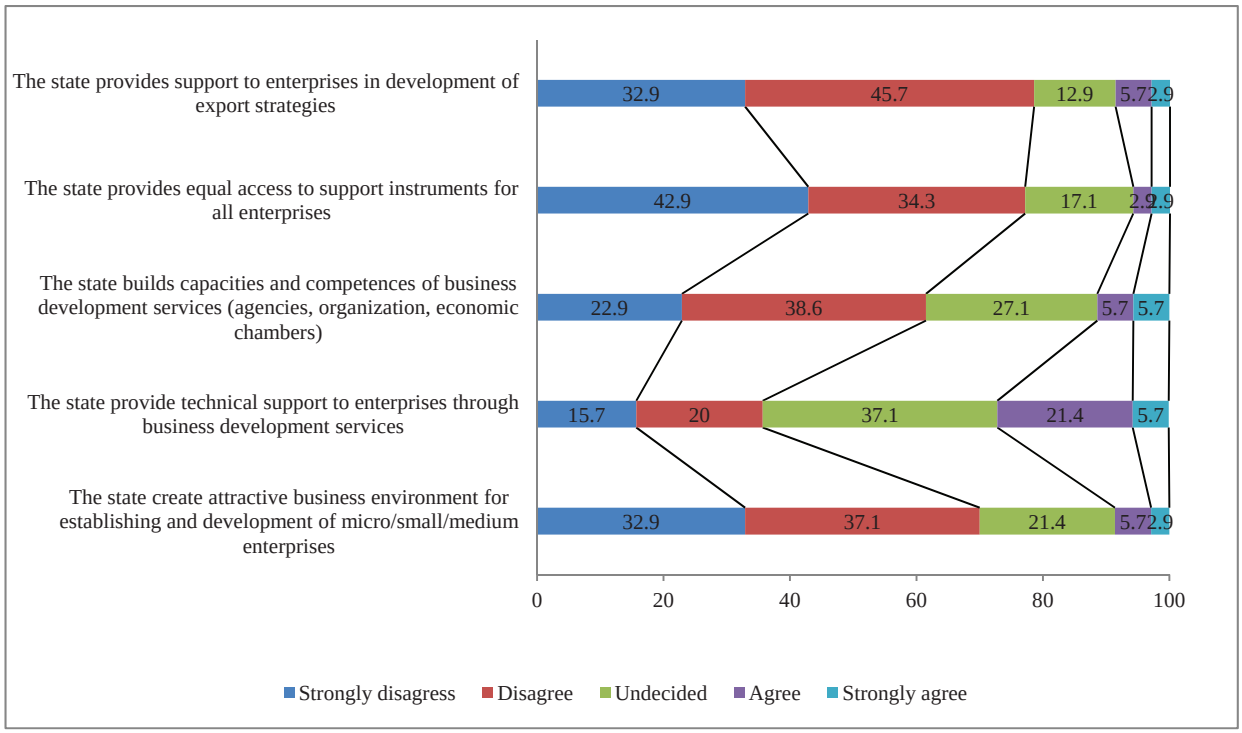


Figure 3: Perceptions of SMEs on the state's role in proving technical support to enterprises with purpose of strengthening SMEs sector

Source: Authors research

As the survey results presented in figure 3 show, the surveyed SMEs in most of the cases either strongly disagrees or disagrees that the state provide necessary technical support for strengthening enterprises, and therefore, reduces poverty. The majority of the surveyed SMEs strongly disagrees or disagree that government provides support to enterprises in development of export strategies and that provides equal access to support instruments for all enterprises. These results show that BiH government does not create economic policies which support exporting activities, even though the state has high foreign trade deficit.[136] Furthermore, the surveyed SMEs assessed that the state does not provide equal access to support instruments for all enterprises, which can be linked to high degree of corruption in BiH.

On the other hand, the research results shows positive perception of the surveyed government bodies in regards to the state's role in providing technical support to enterprises (see figure 4).

[136] According to the Agency for Statistics of Bosnia and Heregovina, in the period January-May 2015, export amounted to 3 billion 605 million BAM, which is 4,6% higher than in the same period of 2014, and import amounted to 6 billion 299 million BAM, which is 0,1% lower than in the same period of last year. The coverage of import by export was 57,2% and foreign trade in goods deficit amounted to 2 billion 694 million BAM.

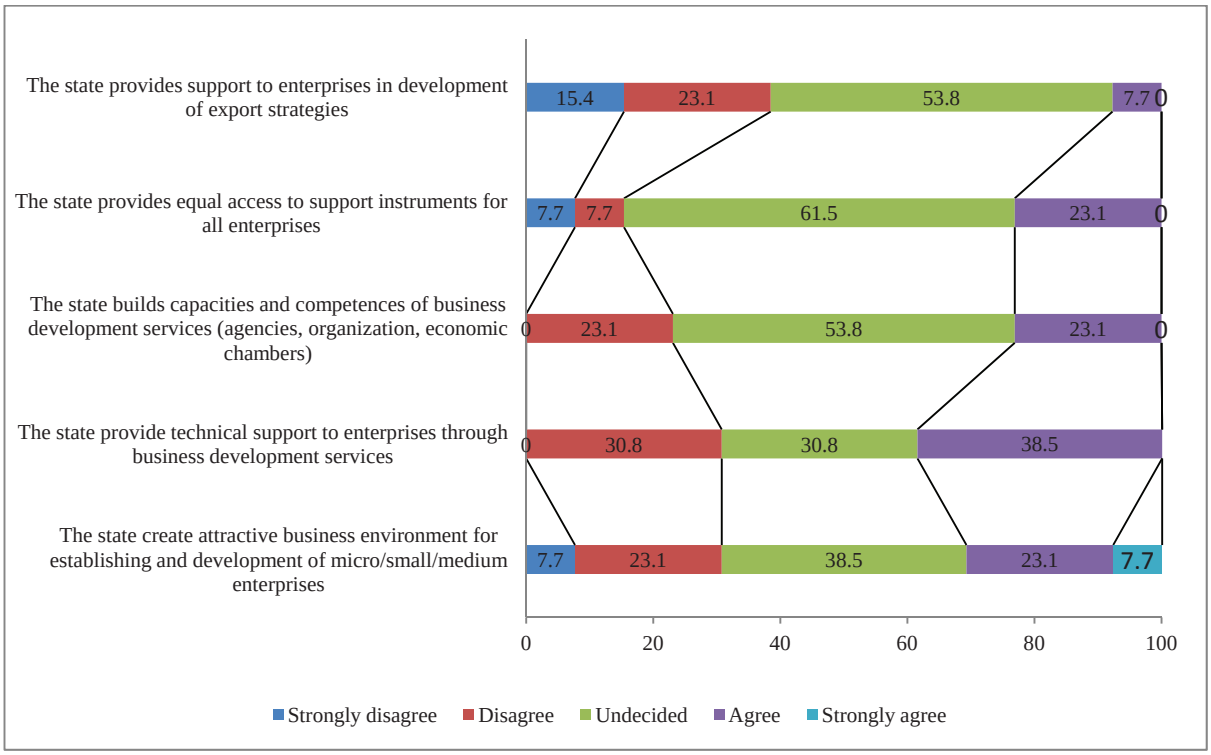


Figure 4: Perceptions of government bodies on the state's role in proving technical support to enterprises with purpose of strengthening entrepreneurship

Source: Authors research

The surveyed government bodies are, in most cases, undecided about the issues related the state's technical support for strengthening SMEs sector. In contrast to the surveyed SMEs, the surveyed government bodies gave more affirmative statements in regards to the specific aspects of the state's role in providing technical support to enterprises.

As the figure 4 shows, 61,5% of the surveyed government bodies were undecided about the state's role in providing equal access to support instruments for all enterprise, while 38,5% of the surveyed government bodies agree with the statement that the state provide technical support to enterprises through business development services.

Discriminant analysis shows statistically significant difference in perceptions of SMEs and government bodies in regards to the state's role in proving technical support to enterprises with purpose of strengthening SMEs sector, which is shown by statistics in table 4.

Table 4: Discrimination analysis for the state's in proving technical support to enterprises

F	eigenvaules λ	% of Variance	Cumulative %	Canonical Correlation r_c	Wilks' Lambda λ	Chi-squared χ^2	df	Sig.
1	0,245	100	100	0,444	0,803	17,231	5	0,004

Again, one discrimination function was determined, where the function describes 100% of the variation of the between groups variation, which is shown in table 2. Squared canonical correlation (r_c), the effect sizes for the discriminant functions, is ($0,444^2$)=0,245. Wilks Lambda is high (Wilks λ=0,803) showing low discrimination strength of discriminant functions. Chi-squared test (χ^2) for function 1 is statistically significant (χ^2=17,231 sig.=0,004), showing that discrimination model is significant, and therefore can adequately measure group membership.

Table 5 shows discriminant function coefficients and group centroids for the state's role in in proving technical support to enterprises.

Table 5: Discriminant function coefficients and group centroid for the state's role in strengthening sector

	Discriminant Coefficient (DC)	Group	Centroid
The state provides equal access to support instruments for all enterprises	0,859	Private sector	-0,211
The state create attractive business environment for establishing and development of micro/small/medium enterprises	0,661		
The state builds capacities and competences of business development services (agencies, organization, economic chambers)	0,485	Government	1,136
The state provides support to enterprises in development of export strategies	0,415		
The state provide technical support to enterprises through business development services	0,180*		

* Difference does not exists

As the table 5 shows, significant difference in perceptions among private and government sector is observed in respect to the state's role in providing equal access to support instruments for all enterprises (DC=0,859), and to the state's role in creating attractive business environment for establishing and development of micro/small/medium enterprises (DC=0,661).

Significant difference was not observed for the state's role in building capacities and competences of business development services (agencies, organization, and economic chambers), providing support to enterprises in development of export strategies, and for providing technical support to enterprises through business development services.

Conclusions and Recommendations

Research shows that a significant government support is necessary for private sector development and poverty reduction in BiH. In that respect, it is expected that government assures the following measures:

- Creating attractive business ambient for SMEs development. Research shows that state interventions are necessary in the following areas: a) creating better entrepreneurial infrastructure, institutions, and laws; b) increasing of the competitiveness of BiH (stabile government, efficient taxation system, more efficient administration); c) creating better investment climate, and d) increasing of economic freedom;

- Building capacities of micro, small and medium sized enterprises. As the research shows, private sector is not satisfied with the government support to financial sector. Government needs to create adequate policy measures to support financial sector and provide financial support to enterprises through grants and subventions, and to remove financial barriers to bust private sector development. In better financial environment, enterprises will increase number of employees and will provide better working conditions. This will reduce poverty rate in BiH, and will give more opportunities for poor to find employment or to self-employ;

- Fostering development of SMEs in sectors where BiH has comparative advantages. BiH possesses significant natural resources, which provide comparative advantages in agricultural and industrial sectors. Evidences shows that these sectors are rapidly deteriorating and government needs to create economic policies oriented towards boosting growth in these sectors.

Overall, it can be concluded that creation of positive economic environment, providing institutional, financial and technical support by the state to SMEs and enterprises are *conditio sine qua non* for assuring growth in sectors with comparative advantages in BiH, and will increase employment and reduce poverty.

References

1) Adenutsi, D. E. (2009). Munich Personal RePEc Archive (MPRA): Entrepreneurship, Job Creation, Income Empowerment and Poverty Reduction in Low-Income Economies. http://mpra.ub.uni-muenchen.de/29569/ (accessed 20.04.2015.)

2) Agency for Statistics of Bosnia and Herzegovina (2015) BiH Foreign Trade in Goods Statistics, January-May 2015. First Release. http://www.bhas.ba/saopstenja/2015/ETS_2015M05_001_01-bos.pdf (accessed 07.07.2015)

3) Akhter S., Liu Y., Daly K. (2010). Cross Country Evidence on the Linkages between Financial Development and Poverty. *International Journal of Business and Management*. 5(1), pp. 3-19

4) Avlijaš, R. (2008). *Preduzetništvo i menadžment malih i srednjih preduzeća*, Univerzitet Singidunum, Beograd, 2008

5) Audretsch, D. B. (1995). *Innovation and Industry Evolution*, Cambridge: MIT Press

6) Audretsch, D. B. and Fritsch M. (2002). Growth Regimes over Time and Space. *Regional Studies*. 36(2), pp. 113-124

7) Audretsch, D. B. and R. Thurik (2001). Linking Entrepreneurship to Growth, *OECD Science, Technology and Industry Working Papers*, 2001/02, OECD Publishing. http://dx.doi.org/10.1787/736170038056

8) Azra, Khan D., Ahmad E., and Ullah W. (2012). Financial Development and Poverty Reduction: Time Series Evidence from Pakistan. *World Applied Sciences Journal*. 18(11), pp. 1576-1581

9) Caree M.A., and Thurik,A.R. (2008). The Impact ofEntrepreneurship on Economic Growth. in Acs Z.J. and Andretsch B.D. (Eds.), *Handbook of Entrepreneurship research*. Boston,Mass: Kluwer Academic Publishers, pp.437-471

10) Cole A. H. (1959) *Business Enterprise in its Social Setting*. Cambridge, Mass.: Harvard University Press.

11) Dhrifi, A. (2013). Financial Development and Poverty: What Role for Growth and Inequality?. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(4), pp. 119–129

12) Ericson, R., and Pakes, A. (1995). Markov-Perfect Industry Dynamics: A Framework for Empirical Work, *Review of Economic Studies*. 62(1), pp. 53-82

13) Griffiths B., and Tan K. (2009). Fighting Poverty Through Enterprise: The case for Social Venture Capital. Transformational Business Network, The Venture Centre – University of Warwick Science Park,England. https://www.tbnetwork.org/download/books-articles/Fighting%20Poverty%20Through%20Enterprise.pdf (accessed: 05.01.2015)

14) Ho, S., and Odhiambo, N. M. (2011). Finance and Poverty Reduction in China: An Empirical Investigation. *International Business & Economics Research Journal*. 10(8), pp. 103 -114

15) Honohan, P. (2004). World Bank Policy Research Working Paper: Financial Development, Growth and Poverty: How Close is the Links. World Bank. http://www1.worldbank.org/finance/assets/images/3203.pdf (accessed 21.01.2015.)

16) Hopenhayn, H.A. (1992). Entry, Exit and Firm Dynamics in Long Run Equilibrium. *Econometrica*. 60(5), pp. 1127-1150

17) Jovanovic, B. (1994). Entrepreneurial Choice When People Differ in their Management and Labor Skills. *Small Business Economics*. 6(3), pp. 185-192

18) Klein M. U. (2003). World Bank Policy Research Working Paper: *Ways Out of Poverty: Diffusing Best Practices and Creating Capatibilites – Perspectives on Policies for Poverty Reduction*. www.elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-2990 (accessed: 15.09.2014.)

19) Klepper, S. (1996). Entry, Exit, Growth, and Innovation over the Product Life Cycle. *American Economic Review*. 86(3), pp. 562-583

20) Lambson, V. E., (1991). Industry Evolution with Sunk Costs and Uncertain Market Conditions. *International Journal of Industrial Organization*. 9(2), pp. 171-196

21) OECD (2006). Promoting Pro-Poor Growth - Private Sector Development, http://www.oecd.org/development/povertyreduction/36427804.pdf, (accessed 19.01.2015.)

22) Quartey, P. (2005). UNU-WIDER: Financial Sector Development, Savings Mobilization and Poverty Reduction in Ghana. *Research Paper* No. 2005/71. United Nations University, Helsinki, Finland, http://archive.unu.edu/hq/library/Collection/PDF_files/WIDER/WRP/WRP130.pdf (accessed 05.06.2015.)

23) Reynolds, P. D., Storey D.J. and Westhead P. (1994). Cross-National Comparison of the Variation on the New Firm Formation Rates. *Regional Studies*. 28(4), pp. 443-456

24) Reynolds, P. D., Miller B. and Maki W. R. (1995). Explaining Regional Variation in Business Births and Deaths: US 1976-1988. *Small Business Economics.* 7, pp. 389-407

25) Singer A. E., (2006). Business Strategy and Poverty Alleviation. *Journal of Business Ethics*. 66 (2/3), pp. 225-231

26) Slivinski S. (2012). Goldwater Institute Policy Report: Increasing Entrepreneurship is a Key to Lowering Poverty Rates. Report No. 254, Goldwater Institute, Phoenix https://www.heartland.org/sites/default/files/pr25420increasing20entrepreneurship.pdf (accessed: 20.06.2015)

27) Uddin G.S., Kyophilavong P., Sydee N. (2012). The Casual Nexus of Banking Sector Development and Poverty Reduction in Bangladesh, *International Journal of Economics and Financial Issues.* 2(3), pp. 304-311

28) Van Praag, C.M., and Versloot, P.H. (2007). What is The Value of Entrepreneurship? - A Review of Recent Research. *Small Business Economics*. 29(4), pp. 351-382 http://dx.doi.org/10.1007/s11187-007-9074-x

29) Vietor R. H. K. (2007). *How Countries Compete- Strategy, Structure, and Government in the Global Economy*. Boston, Mass.: Harvard Business School Press

THE INFLUENCE OF BUSINESS COMMUNICATION ON ENTERPRISE COMPETITIVENESS

Valentina Vukmirović[1]

Nikola Vukmirović[2]

Abstract

Business communication, as a process of information exchange within an enterprise and between the enterprise and its surrounding, has a growing significance. Communication skills are especially important in business decision making and decision implementation.

Analysis of previous researches indicates that domestic enterprises management did not pay adequate importance to creating contemporary corporate communication, between an enterprise and its business surrounding as well as within enterprise itself.

Such condition of business communication system in domestic enterprises is a significant problem in contemporary management systems based on knowledge, quick decision making and exceptional quality of decision implementation.

Therefore, this paper will examine the influence of business communication on competitiveness of enterprises in Bosnia and Herzegovina. Thereby, main hypothesis in this paper is that quality of communication has a significant influence on management efficiency and enterprise competitiveness enhancement.

This paper consists of three parts. First part refers to the subject matter, concept and forms of communication. Second part of the paper is focused on business communication. Within this part, communication specifics in smaller, entrepreneurial organizations, have been emphasized and compared with communication specifics in large enterprises, which have far more complicated organization structure.

In third part of the paper, case study has been displayed. Research included critical analysis of business communication system in „Wood cluster Banja Luka". Obtained results have been compared with resuts of foreign cluster management research, in order to confirm main paper hypotesis.

Key words: *business communication, management efficiency, competitive ability, knowledge, management.*

1. Conceptual definition and communication forms

Depending on the approach, literature defines communication in different aspects. Those aspects can be: sociological, cultural, pshychological, business etc. The existence of large number of different communication definition indicates complexity of this phenomenon. Nevertheless, most authors consider communication as a process of message transfer between two persons, with the conditon of message comprehension.

Frequent discussion topic is related to intention, i.e. whether communication has to be intentional, deliberate behavior, shaped in order to create certain effect for the reiever of the message. Certain authors claim that communication includes all activities performed and sent by certain person, in order to provoke feedback, i.e. response. (Rouse, 2005)

Other authors consider that communication, as well as the answer itself, may be created intentionally or unintentionally. (Burgoon, Hunsaker, Dawson, 1993)

Based on the manner in which communication is accomplished, verbal and non-verbal communication can be distinguished. Verbal communication includes usage of language as a media, which can be used in spoken or written form. Advantage of spoken communcation is the fact that, through questions and answers, people can obtain feedback and therefore estimate wheather interlocutor has understood the message. Negative aspect of this form of communication is the fact that people think less about the message content than in case of written communication. Written communication leaves written trace. Its advantage reflects in the fact that person who sends message has more time think about it, and person that is giving feedback has more time to compose the answer, which can later serve as a reminder. Negative aspect of written communication is unhurried message exchange and increased responsibility in aspects of form and content.

Non-verbal communication, which refers to intentional and non-intentional significances that do not posses the form of spoken or written word, is often neglected. Non-verbal communication involves elements such as: facial expressions, voice tone, gestures, body language, movements, look. Message consists of three parts: verbal, audio and expressive. (Frančesko, Mirković, 2008)

It can be concluded that attention has to be aimed to the content of the message as well as the manner in which message is communicated, because facial expression or gestures can expose what interlocutor attempts to hide.

Based on whom the message refers to, communication can be interpersonal and intrapersonal. Interpersonal communication requires at least two persons, usually in non-formal surroundings and represents elementary form of social communicating. Main characteristic of interpersonal communication is direct feedback, i.e. response from interlocutor. Intrapersonal communication is characterized with the fact that single person is, at the same time, the sender and reciever of messages. Intrapersonal communication includes: plan preparation, conversation and procedure review. In large number of cases, intrapersonal communication precedes to interpersonal communication.

1.1. Business communication

Business communication is information exchange within an organization which aim is to promote product and services, as well as business organization itself. In order to make progress in business activities it is of utmost importance to reach high quality in communication. Therefore, every entrepreneur has to know how to communicate profesionally and consistently. Importance of business communication was also recognized by John D. Rockefeller, who said that he would pay

more money to achieve effective communication rather than anything else. (Gnjato, 2003)

Business communication can be internal (subjects of communication are based within business organization) and extrenal (communication with individuals beyond organization). In case of entrepreneur who establishes and manages small organization, extrenal communication is more important than internal. The most important aims of external business communication is establishing and strengtheninig good relations with investors, searching for customers, building good business reputation and creating proper business image.

Effective communication leads to strengtheninig relations with organization and stakeholders, i.e. groups of interest, which are influenced by organization actions, and which influence the organization with its actions. In every phase of business development, communication has key importance.

Technology development has led to appearance of new methods of communicating. Usage of email, social networks, blogs and other forms of modern electronic communication in business communication, becomes standard for contemporary organizations. In today's world, when numerous information are available to the general public, it is of utmost importance what kind of message person sends about itself, and what public says and thinks about the person. (Vukmirović, 2012)

1.2. Role of communication in business negotiations

Within business relations and business communicating, negotiations have a special role and important impact on sucess of business management. Negotiations can be defined as a process of bidirectional communication, which happens every time when certain information is demanded from another person. Negotiations require active participation of individuals which are included in proces of negotiating, in order to achieve agreement or resolve certain problem. Steven Cohen suggest that „negotiation is process in which two or more parties colaborate in order to achieve mutually acceptable solution of one or more issues, such as business transactions, contracts or any kind of agreement“. (Cohen, 2002)

Flexibility is the key to success in negotiation, because of the fact that certain compromise must be made in order obtain required benefits. Besides from expressing own attitudes and opinions in a manner which is acceptable to others, it is necessary to understand other people's opinions.

Three basic types of negotiations, based on their outcome, are: integrative, distributive and destructive. (Rouse, 2005) Integrative negotiations as result can have, so called *win-win* situation, in which both sides achieve their goals. Main characteristic of distributive negotiations is *win-lose* situation, in which one side can not achieve their aim. Destructive negotiations are processes where there is a possibility that negotiators lose, even though they formally won (so called winner malediction), i.e. they harm themselves in order to win at all costs. Elements of negotiation process are: negotiators, process and result of negotiation. (Šarenac, Pavličić, Begu, 2006). It is important to point out that the other member of negotiation process should not be considered as opponent, but a partner who opposes in his/her own interest. Negotiator should adjust its negotiation style, based on who the other interlocutor is. Applying one style of negotiation will not always result in same outcome. Position of individual in process of negotiation may be: auditor, creator, activist and thinker. Auditor respects relations with other members of the negotiation process, which, from that point of view, gives much more importance to negotiation as a process. Auditor does not prefer risk, may be unhurried in decision making and, during negotiations, puts effort in order to make both sides satisfied. Most commonly they enter in conflict with activists. Expressing respect, familiarity and informality, may be very helpful in negotiation with auditors. Creator is creative and flexible,

who is not focused on details, but deliberates about important issues. At the same time, creator can be impulsive and tend to make decisions quickly. Most commonly, creators enter in conflict with thinkers. Activist is self-confident and competitive, does not pay attention on other persons needs and may be arogant and poor listener. Their only aim is to win and most commonly enter in conflicts with listeners. Thinker pays attention to details, and searches for fair solution for both sides in negotations. Thinkers find accuracy, logics and information as most important factors. This member of negotiations strives to perfection and does not prefer to take risks. Most commonly enters in conflict with creators. Negotiation process consists of four phases: preparation, information exchange, coming to an agreement and closure. (Burgon, Hunsaker, Dawson, 1993) In process of preparation, it is of utmost importance to have an idea how to present own opinion to interlocutor. Effective negotiation includes capability of stating thoughts and needs clearly. Before negotiations, it is necessary to make a research on person who participates in process of negotiation (reputation), and which tactics of negotiation that person usually uses. Information exchange is second phase of negotiation process which demands effective communication. There should not be hesitation in asking questions, because it gives the opportunity to observe oponent's point of view and understand better its intentions. Third phase is the most important, in which final answer is established. Sides are expressing their demands, i.e. conditions for reaching an agreement. In order to achieve agreement on mutual contentment, both sides have to accept certain compromises.

Efficient negotiators are capable to find the best solution for themselves, but at the same time, solution which is acceptable to the other side in process of negotiation. For negotiator, it is important to know which position is wanted, realistic and alternate, because that is the only manner in which negotiator will have the opportunity to realize its interests.

Power is very important component during process of negotiation, because it gives advantage to the side which in possesion of it. Power can be defined as capability of negotiator to achieve advantage or enhance the possibility of aims realization. (Lewicki, Saunders, Barry, 2009) Tactics which negotiators use are directed towards enhancing their own power or lowering power of the oponent. Special types of power are used in negotiations. Power can be result of negotiator's position, it may be result of knowledge or personal, which refers to person's charisma. Main source of negotiation power are information. (Dobrijević, 2011)

2. Communication specifics based on enterprise size

Differences between small and large enterprises, produce differences in internal and external communication processes typical for certain enterprise. The most important differences refer to organizational structure, production volume and market size in wich products are placed. Communication improvement is focused on velocity, complexity and clarity of certain information flows towards and among employees. (Grubić Nešić, 2005) Organization in large enterprises is decentralized and formalized.

Roles, actions and procedures of individuals are strictly determined. Communication is mainly one-way and based on formal messages which are used for assigning work tasks to the individuals of minor rank. In order to achieve more efficient management of this complex business systems, communication has to be formal. It is necessary to make efforts in order to overcome obstacles in communication in best possible manner.

Organizational barriers in communication process do not exist in smaller enterprises because of fact that their organizational structure is very simple. Employees are not numerous, therefore formalization of relations is not necessary. Communication is mostly informal and two-sided.

In large enterprises, which have bigger number of organizational units on one level it is

important to provide its coordination. Communication has a significant role in this process, and in order to be successful, it is necessary to clearly define process of communication between units at the same organizational level. Communication structure within small enterprises is simple, therefore their organizational structure is simple and decision are made by one person. Information in smaller enterprises are usually transmitted directly, while path between sender and reciever is shorter.

Large enterprises achieve larger production volume, and their product range is various. Smaller enterprises are usually based on craft production, where smaller quantities of same kind of products are produced. Besides, large enterprises cover larger market and face strong competition, while small enterprises mostly cover one smaller market segment. Communication within large enterprises is much more intense than communication within small enterprises, which can also be applyed for communication which large business organizations achieve with external subjects.

3. Communication with stakeholders

Individuals, groups and organizations which are influenced by enterprise actions, and which influence enterprise with its actions, are called groups of interest or stakeholders. It is of utmost importance to recognize these groups and appreciate their interests and aims. They can be identified by expert engagement, usage of published information from different sources, or through certain business problem analysis.

Stakeholders can be internal or external. Internal stakeholders are owners, management and employees. External stakeholders are: investors, customers, vendors, state and its institutions, competition, local community and media.

3.1. Communication with employees

Communication within employees in enterprise is focused on velocity, completeness and clarity of certain information flows among employees. Possibilities of communication influence on organizational behavour are numerous. Good communication presume actual connection between people, which enables exchange of ideas, thoughts, feelings and needs which lead to complete understanding and contentment. Factors of communication dynamics are: space, time, roles, relations, interaction, situation and surroundings. (Grubić, Nešić, 2005) Clear communication contributes to reducting fear of changes, therefore easing effects of change resistance. Besides written communication with employee, verbal communication of informative character is of great importance. Quality communication contributes to conflict reduction in organization, which can appear as a consequence of change implementation.

Quality two-side communication encourages employees to work as best as they can. Direct verbal communication is mostly used for assigning work tasks, except from situations when supervisor is not present, therefore written messages (sms, e-mail, instant messages) or phone is used in order to inform employee about the assigned task. Efficient and unambiguous communication with employees is necessary in order for employee to understand what is expected of him. In certain situations it is required not just to assign work task, but also explain employees why it is important to perform it. Employer with good communication skills will additionally motivate employers and make positive imapct on working ethics.

Through communication with management, employees report about work results, work problems and make suggestions and comments. In order to achieve quality communication, it is necessary to design procedures of fast and effective communication in advance.

„Pennyworth“ communication is important form of communication, therefore trend of linking employees in, so called, virtual private networks, which give them the opportunity of free conversation, is lately expanding. Most popular multiplatform applications for free messaging via internet are viber, whatsapp and skype.

Employer should always pay attention and listen to employees, find out their needs and employment expectation, as well as job satisfaction. These, and numerous other information, can be collected via direct conversation and through conducting anonymous surveys, which have two advantages. Firstly, employees will tell more than they would if they talked „face to face“ with employer, secondly, employees will get the impression that employer takes care of them and appreciate their oppinion.

3. 2. Communication with investors

In order to realize good business idea, investor usually needs funds from external sources. Financiers will support project only if they believe that it will be successful in future, therefore it is important to present the idea as best possible. No matter how good it is, the idea will be completely useless if it is not adequately presented and understood. Idea presentation (business) usually consists of three parts: introduction, main part and conclusion. (Vukmirović, 2012)

Introductory part needs to be especially convincing. First impression is very important, therefore presentation has to be convincing in order to arouse interest for presentation topic. Depending on interlocutor, appropriate vocabulary and approach should be used. Introduction should be concise, without unnecessary protraction, in order to present main part while listeners' attention is at highest point.

Main part should be presented in simple language. For example, complex constructions should be explained through picturesque example from practice. It is most appropriate to firstly talk about problem which is sucessfully solwed with the idea, i.e. need which will be satisfied with product or service. In order to make presentation as convincing as possible, it is recommended to use statistic data which refers to certain problem. Presentation of product or service should contain elements which will present it in a different, more interesting manner.

At the end, in the final part of presentation, conclusions and aims should be briefly highlighted. Impression which potential financiers gained about speaker significantly influences final impression, therefore presentation should be sucessfully concluded. Thereby, nonverbal communication is very important in investor decision-making and supporting business idea. Body language can sometimes say more than spoken words. Sight and facial expressions are the most important nonverbal signs which leave impressions on interlocutor.

3.3. Communication with customers

Loyal customers are the most important factor for business success because „customer creates value“ as Peter Drucker claims and proves in his papers. (Drucker, 2005)

In order to gain loyal customers it is neccessary to encourage them right from the first contact. It is required to make an effort in order to provide information which customers find relevant for product purchasing. While choosing manner of communication with customers, different factors should be taken into account, such as: type of product sold, potential customers are and disposable funds.

In order to gain customers' trust and have the ability to influence their decisions, effort must

be made in order to completely understand their needs and solve their problems. It is important to provide the opportunity for customers to express their opinion about product, whether it is flattering or not, and make suggestions. Information gained from customers are precious and should be used wisely for business improvement.

Marketing function in enterprise performs jobs such as decision-making about product and packaging design, determining prizes and discounts, choosing distribution channels and activities of communicaion with customers. Nowadays, new marketing approach, which includes communication before and after purchase, is applied. Frequency of communication with customers is very important, therefore contacts should be regularly updated, because gaining new customers is far more expensive than retaining loyal ones. (Mayer, 2009)

Due to lack of funds for large marketing projects, small and medium enterprises can use so called guerilla marketing, strategy of unconventional advertising which uses low budget means in order to obtain maximum attention. This form of advertising is gaining much importance, because classical everyday advertisements are becoming repellent. Direct marketing is interactive system which uses one or several communication media in order to provoke measurable customer response. Direct marketing concept is based on potential customers identification and establishing contacts via personalized messge. Considering the fact that it shows instant results and does not require big investments, it is ideal for small enterprises. Direct communication gives the opportunity to personalize relations with customers, which makes them feel that their needs are taken into account. Lately, social media became significant in achieving customer communication goals. Interactivity, as one of their significant characteristics, provides customers with the opportunity to actively participate in creating social media content.

Benefits from using social media in customer communication are several. Low costs, possibility for real time communication and prompt feedback are only some of them.

3.4. Communication with suppliers

Collaboration with suppliers can be complicated and difficult, unless it is based on quality bidirectional communication. Communication process is not just base for building good business relations with suppliers, but also has a significant influence on strengthening competition ability. (Porter, 2006) It is of utmost importance that frequency and effectiveness of communication increase in specific situations, such as sudden changes in level of demand for merchandise or change in customer demands which refers to final product. Good business relation with suppliers in small and medium enterprise can be the key to business progress, because they can be used for getting in touch with other enterprises. Besides, there is a big probability that certain enterprise will have some benefits if they cooperate with suppliers, such as discounts or longer periods for payments.

Agreements about merchandise quantity, its price, and delivery time, and other elements of contract with supplier require discussion. Thereby, it is important to acquire all necessary information and consider every possible options before concluding contract.

E-mail, telephone conversation and applications for sending instant messages via internet are most common means for communication with suppliers. Process of business communication usually begins with sending e-mail questionnaires to suppliers. Supplier answers the questionnaire by sending an offer which contains information about products or services which were listed as items of interest. Information collected this way are significant to comprehend market conditions, primarily where and at what price resources necessary for business process can be obtained.

Research conducted in this paper analyzes two well-known sorts of questionnaire: (Ferišak, 2006)

- Constructional oriented questionnaire - contains detailed characteristics of subject of procurement which is in accordance with solutions and demands, whereat supplier has to offer that kind of solution that will not need alteration.
- Functionally oriented questionnaire - contains information about requests (technical and economic) which subject of procurement has to fulfill, while supplier is left to offer solution which is considered as most favorable.

Supplier answers questionnaire with an offer which presents basis for contract conclusion.

One of preconditions for successful bussines collaboration between enterprise and supplier are frequent business meetings, which provide information about latest business trends and advices for client.

3.5. Communication with other stakeholders

State role in creating favorable conditions for small enterprises development, creating mutual connection and developing business communication with large enterprises is very significant. Therefore, in Bosnia and Herzegovina/Republic of Srpska competent ministries and agencies are established.

In Republic of Srpska, at state level, Republic agency for development of small and medium enterprises is established, as a coordinating institution for realization of strategies and policies adopted by Government of Republic of Srpska. At a local level, support for development of small and medium enterprises is provided by municipal economy departments, local development agencies, chamber of commerce as well as scientific-research and education institution, The Republic of Srpska Investment-Development Bank and Guarantee fund of Republic of Srpska. These institutions have four basic strategic aims: completed and functional development infrastructure for development of small and medium enterprises; improving competitiveness, innovation and connection of small and medium enterprises; promotion of enterpreneurship as integral part of economic system and creating stimulating business environment for their connection in business associations and development. Specified aims are implemented in Strategy of small and medium enterprises development of Republic of Srpska, for the period of 2014-2018.

Government of Republic of Srpska has a mission of aims realization, and especially to work on improving communication of state institutions and agencies with enterprises, in order to increase their competition ability. For example, entrepreneurs usually collect same documentation several times for the same purpose, which exposes them to unnecessary expenses.

This problem attempts to be solved with creating unique information system for state institutions. Information system would provide that same document, already delivered to certain state institution, will not be required from same person, i.e. entrepreneur. That is how additional expenses would be eliminated, time would be saved and complicated procedures avoided.

4. Case study „Wood cluster Banja Luka“

Significance of efficient information-communication system in contemporary management is especially significant in decentralized organizational system, such as clusters and other forms of small enterprises business associations.

Cluster is special form of small enterprises association, which usually perform same kind of

business activities and are gathered around mutual key services in oreder to strengthen their competitive ability.

Advantages of enterprise association in clusters are: better intern and extern communication, more efficient collaboration and lower expences of mutual services. Also, increasing income through mutual marketing, easier approach to information, as well as knowledge and technology transfer in order to increase productivity and business competitiveness are significant aspects of clusters.

„Wood cluster Banja Luka“ is established in 2007, with the aim of gathering and promoting wood industry enterprises specialized in furniture production. Later, followed a multiyear period of intense business negotiation linked to numerous issues, such as: legal and property terms, organizational, development and human resources policies, and especially, forming and financing mutual expert services in charge of realization of their business ventures.

Negotiation was successful, therefore at the end of 2014 „Wood cluster Banja Luka“ consisted of thirty three members, and until 2020 it is planned that number of joint enterprises be doubled. Wood cluster establishment eased organization and firm business connecting of small enterprises, as well as rational forming of strategic functions (market research, marketing and sales, intern and extern financing, investing in development and therefore expences reduction).

Mutual services provide expert assistance for their members concerning following: easier agreement on purchase of raw materials, product design, implementation of new technology, education and organization of joint appearances on domestic and foreign market, connecting with strategic partners, applying for investment funds. Moreover, cluster represents its members in collaboration with state institutions and raises awareness of joint management advantages, and at the same time, enables possibility of economy of scale and economy of product differentiation.

Business communication among cluster members is basis for successful work organization within enterprises, cluster members, as well as between cluster and business environment. Enterprise management of cluster members accentuated that collaboration accomplishment mostly depends on information and quality of communication attached to mutual services.

In 2013, „Wood cluster Banja Luka“ provided contracts with foreign furniture producers, total value over 300.000 €, and first joint furniture export for foreign customer, total value over 50.000 €. For 2015, production program is planned to be expanded, as well as increase of export for 25% (in four enterprises total increase is 54%) and 12% (in two enterprises total increase is 32%) of production increase for domestic market. Presented facts demonstrate that some enterprises knew how to make the most of joint management in cluster.

In order to achieve agreement and organize mutual activities, quality dialogue is necessary in order to accomplish compatibility of business activities of enterprises which participate in joint ventures.

Lateral communication between enterprises which is realized without interference of cluster services is unreliable and of low intensity, because of the fact that enterprises do not exchange enough information required for successful management.

This assumption is confirmed by analysis of questionnaire answered by managers of enterprises joint in cluster. Namely, based on the analysis it can be claimed that building trust between participants in joint ventures presents complex process which requires patience and advanced communication skills.

Every entrepreneur, i.e. enterprise management, possesses different business experience, specific competences and aims. Therefore, numerous seminars and business coaching programs for middle management of cluster members, have been conducted in 2012 and 2013.

Based on the analysis of results collected from research on cluster fuctioning in different countries (Serbia, Austria, Italy), it can be concluded that problems in intern cluster communication, i.e. communication between cluster members, usually refer to organizational, human resources and psychological obstacles. Traditional tightness of small enterprises and their mistrust are usually reasons why joint entrepreneurial activities need longer period to realize, because of the fact that they are used to work separately, and not to subordinate their own goals to a larger, mutual goal. Taking full responsibility for assigned work, receiving (constructive) critisism and suggestions, as well as readiness for team work and collaboration present positive forms of behavior which must be accepted and applied by participants in order to achieve sinergetic effect and best possible result in a complex cluster system. (Hugins, Izushi, 2012)

Need for business communication advancement in clusters, based on results of both analysis, indisputably rises. Research results also indicate that business communication advancement is especially important when cluster members are territorially distant, have wider portfolio of production program and different qualification and age structure of management members and employed profeessionals.

Most researchers and scientists divide business communication in three levels. First level is recognition of goals, manner of thinking and partner behaviour in communication. Second level is recognition, which means showing interest for partner's sugesstions. Approval is third level of affirmative communication and it presents expressing agreement with partner's idea and proposals. (Dobrijević, 2011)

In questionnaire used for research in „Wood cluster Banja Luka“, three levels of communicationn are observed from aspect of obstacles in business communication of small enterprises. Obstacles refered to: export, foreign investments and partnerships and professional management competence. Research results demonstrate that structure of obstacles is: a) lack of foreign language knowledge (36%); b) insufficient knowledge about cultural, religious and business customs in foreign countries and c) insufficient expert competence for foreign investments and impossibility of their obtaining (35%).

In order to reduce these obstacles, education and coaching for improving business communication in cluster were organised. In above mentioned period, special attention was dedicated to training cluster specialists for communication with foreign customers, foreign investors and export-import enterprises outside the cluster. Establishing technical cooperation, as well as professional and financial help of domestic and international organization for small enterprises development (USAID, SIDA, CIDEA, RARS, JICA, etc), was of great help in business and communication promotion in cluster.

In 2011, as a support in cluster development and more successful appearance in domestic and foreign market, Center for design and technical support was established.

In center development plans, special attention is dedicated to inovation implementation and creating new forms of communication with domestic and foreign customers. The aim was their intensive inclusion in business process of cluster members. That is how customers, passive consumers, become active participants in product design advancement, i.e. prosuments.

Further development plans of cluster and center are focused on growing presence of internet sales and electronic communication. Web page can be an excellant instrument for business promotion and communication. With help of *USAID* and *SIDA* agencies, in 2012 „Wood cluster Banja Luka“ created its web page. Majority of surveyed managers (87%) and experts for commercial and financial business (82%) consider that much more attention should be payed on electronic communication, because of the fact that contemporary information technology provides many possibilities for promotion, development and business advancement. Likewise, 92% of managers and 76% commercial and financial staff consider that introducing regular attendance of seminars, courses and trainings for knowledge advancement is necessary. It should include following knowledge and skills: business communication, marketing and sales, accounting and finances. Based on their assesment, income increase, as a direct result of above mentioned activities (in medium term) would be 5 to 7 times bigger than expenses. Indirect positive effects, in longer term (ten years), are estimated to be significantly larger.

Conclusion

In order to preserve competition ability, and especially increase market share, it is necessary that enterprises react to changes in environment. It is required that enterprise has at is disposition business information for business decision making.

Role of business communication in contemporary business world becomes increasingly important, which is unequivocally confirmed by above mentioned results in developed countries. Building good relations with suppliers and purchasers, product presentation, establishment and maintenance of contacts and quality business collaboration is not possible without fast and adequate business communication. This statement is best proven by J.D. Rockefeller “I would pay more for possibility of better communication, rather than anything else”.

However, in Bosnia and Herzegovina not enough significance is payed to business communication, in scientific research, as well as in practice.

This situation has a negative impact on competitive ability of enterprise, especially in foreign market. Therefore, it is necessary that in Bosnia and Herzegovina as many enterprises encourge education and development of communication skills of managers and professionals, especially for staff that is in direct contact with consumers and service users.

Based on the analysis of communication processes in „Wood cluster Banja Luka“, paper main hypotesis that business communication promotion positively influences competition ability increase of cluster enterprises, is confirmed. Far more efficient work organization in key mutual functions and realization of business ventures is achieved. Therefore, it is necessary to implement contemporary information technology in production, even more in marketing, sales, service and customer transformation from consument to prosument. It is not sufficient that external associates be in charge of: public relations, creating web pages and social media profiles, blogs etc. Systematic approach to constant reveal of new possibilities for implementation of IT and other innovative forms of business commnication. Need for constant promotion of business communication is enhanced as a result of growing trend of organizational structure complexity and new forms of enterprise connection in business networks, such as clusters and other business associations.

Literatura

1. Ateljević, J., i Kulović, Dž., Razumijevanje Maj kla Portera, Perfekta, Sarajevo, 2015.
2. Burgoon, M., Hunsaker, G. F., Dawson, J. E., *Human Communication*, third edition, Sage, Thousand Oaks, CA, 1993.

3. Cohen, S., *Negotiating Skills for Managers*, McGraw-Hill, Madison, Wisconsin, 2002.
4. Čović, L., Čović, B., *Osnovi komunikologije*, 3. Izdanje, Panevropski univerzitet "Apeiron", Banja Luka, 2006.
5. Dobrijević, G., *Poslovno komuniciranje i pregovaranje*, Univerzitet Singidunum, Beograd, 2011.
6. Drucker, P., Efikasni direktor, Binoza press, Zagreb, 2005.
7. Ferišak, V., *Nabava: politika, strategija, organizacija, management*, 2. aktualizirano i nadopunjeno izdanje, vlastita naknada, Zagreb, 2006.
8. Frančesko, M., Mirković, M., *Organizaciono ponašanje*, Univerzitet za poslovni inženjering i menadžment, Banja Luka, 2008.
9. Gnjato, V., *Sastanci: interesno komuniciranje*, peto izmjenjeno i dopunjeno izdanje, Alinea, Zagreb, 2003.
10. Grubić Nešić, L., Razvoj ljudskih resursa, AB Print, Novi Sad, 2005.
11. Hugins, R., Izushi, H.(ur) Competitio, Competitive Advantage and Cluster: The Ideas of Michael Porter,Oxford London, 2012.
12. Lewicki, J.R., Saunders M. D., Barry B., *Pregovaranje*, peto izdanje, Mate, Zagreb, 2009.
13. Majer, A., *Kako prodavati*, nadopunjeno i prošireno izdanje, Institut prodaje - obit za unaprijeđenje prodaje, Zagreb, 2009.
14. Pavić, S. Ž., *Etika i poslovne komunikacije*, prvo izdanje, Univerzitet Singidunum, Beograd, 2011.
15. Porter, M., On Competition,Boston:Harvard Business Review.March, 2006.
16. Rouse, J. M., Rouse, S., *Poslovne komunikacije - kulturološki i strateški pristup*, Masmedia, Zagreb, 2005.
17. Šarenac, R, Pavličić, N., Begu, B., *Pregovaranje i pregovaračke vještine*, Uprava za kadrove, Podgorica, 2006.
18. Vukmirović, N., *Preduzetništvo u ekonomskoj teoriji i praksi: inovativni sistemi kreiranja i efikasnijeg korištenja resursa*, Ekonomski fakultet Univerziteta u Banjoj Luci, Banja Luka, 2012.

Internet izvori

19. Hodgson, K., *Killing Us Softly 4*, The Media Education Foundation, 2010., http://www.mediaed.org/assets/products/241/studyguide_241.pdf, (27.5.2014.)
20. Moshe Kahn Advocates advokatska kancelarija, *What could Persuade an Investor to Invest in your Company*, HG.org Legal Resources, http://www.hgorg/article.asp?id=5760, (21.5.2014.)
21. Moskowitz, R., How *to Persuade Investors to Fund Your Small Business*, quickbooks.intuit.com,http://quickbooks.intuit.com/r/money/how-to-persuade-investors-to-fund-your-small-business, (25.6.2014.)
22. Republička agencija za razvoj malih i srednjih preduzeća, *Godišnji izvještaj za oblast malih i srednjih preduzeća i zanatsko-preduzetničku djelatnost u Republici Srpskoj za 2011. godinu*, http://www.rars-msp.org/, (21.10.20
23. http://www.mediaed.org/assets/prodiucts/241/studyguide_241.pdf,pristupljenol5.02.2015
24. http://www.tutorialspoint.com/management_concepts/negotiation_skills.htm
25. http://www.rars-msp.org/Common/MediaItem/Download/ffll818e-dle5-45cb-bee2-alcb009f3f5a
26. http://www.glassrpske.com/drustvo/vijesti/Utvrdjen-nacrt-strategij e-razvoja-malih-i-srednjih-preduzeca/lat/139858.html

COMPARISON OF CORPORATE GOVERNANCE SYSTEMS IN THE ENTITIES IN BOSNIA AND HERZEGOVINA

Nikola Papac, Ph.D.[137]

Zdenko Klepić, Ph.D.[138]

Josipa Grbavac, Ph.D.[139]

Abstract

Corporate governance is a set of processes and procedures for management and control of corporations; it shows how rights and responsibilities are distributed between different stakeholders in corporations and provides an answer to the question who controls corporation and how. Present-day corporation is an open socio-economic system, i.e. it is a network of social and economic relations in which values that drive modern societies are created. Developed and efficient corporate governance is a fundamental prerequisite for sustainable economic growth, increase of operational efficiency of corporations and a guarantee for easier access to capital.

Characteristics of a corporate governance system are determined by who has the decisive position and influence on relationships in the corporation. In view of whether external structures or perhaps internal ones have the crucial position, we distinguish open and closed systems of corporate governance. The problems of allocation of socio-economic power in corporations and the decision-making efficiency issues are solved in different ways, and the relationship between managers and shareholders is eventually defined in different ways, depending on properties of the system of corporate governance.

Bosnia and Herzegovina is regulated in a complex manner and divided into two entities, the Federation of BiH and the Republic of Srpska; as a result of such circumstances, there are two separate but partially harmonized entity legal frameworks, as well as two separate capital markets in Bosnia and Herzegovina. The complexity of the state system of BiH has determined the complexity of the overall legal framework as well. It can be said for BiH that there are two separate corporate governance systems, relating to the two entity systems, and there is even the third one relating to the Brcko District. This study will analyze the two entity systems of corporate governance, and make conclusions on similarities and differences between characteristics of the corporate governance systems in the entities in BiH.

Characteristics of corporate governance systems in selected corporations will be analyzed against the following criteria: legal framework, ownership, concentration of ownership, power and role of owners in corporate governance, corporate governance instruments, interests of other stakeholders, business transparency and the role of capital markets.

This paper will analyze fundamental characteristics of corporate governance systems on a sample consisting of: corporations whose shares are traded on the Sarajevo and Banja Luka Stock Exchange (a total of 87 corporations).

The main goal of the paper is to present and describe the characteristics of corporation governance systems in the entities of FBiH and RS. The pragmatic goals are: defining key parameters that determine the characteristics of corporate governance systems of corporations in BiH, comparing the corporate governance systems in the entities in BiH and problems in convergence of corporate governance systems in corporations in the two entities in BiH.

Keywords: *corporation, corporate governance, corporate governance system in Bosnia and Herzegovina, institutional framework*

[137] *Faculty of Economics, University of Mostar, address: Matice hrvatske bb, 88000 Mostar, Bosnia and Herzegovina, e-mail: nikola.papac@sve-mo.ba*

[138] *Faculty of Economics, University of Mostar, address: Matice hrvatske bb, 88000 Mostar, Bosnia and Herzegovina, e-mail: zdenko.klepic@sve-mo.ba*

[139] *Faculty of Economics, University of Mostar, address: Matice hrvatske bb, 88000 Mostar, Bosnia and Herzegovina, e-mail: josipa.spajic@sve-mo.ba*

1 introduction

Corporate governance shows how rights and responsibilities are distributed among different stakeholders in corporations. We relate corporate governance with the issues of power, authority and responsibility in the performance of the primary activity, i.e. it provides an answer to the question who controls the corporation, why and in whose interest.

Good governance means establishing an effective coordination mechanism among various stakeholders in order to satisfy the needs of each of the stakeholders and ensuring the survival of the corporation.

Corporate governance in a country is defined and regulated by a set of laws as well as other regulations governing this area. Corporate governance in B&H is within the jurisdiction of entities, and there are two substantially aligned and yet entirely distinctive corporate governance systems. Moreover, characteristics of a corporate governance system are also determined according to who has the crucial position and influence on relations in the corporation. In view of whether the crucial position is held by external or internal structures, open and closed corporate governance systems can be distinguished.

Problem which will be explored in this paper is differences in the characteristics of the corporate governance system between the Federation of Bosnia and Herzegovina and the Republic of Srpska.

The main objective of the paper is to present, describe and compare the characteristics of corporate governance systems in the entities of the Federation of B&H and the Republic of Srpska. The pragmatic objectives are: to define key parameters determining the characteristics of corporate governance systems of corporations in the entities in Bosnia and Herzegovina, to compare the corporate governance systems in the entities in Bosnia and Herzegovina and to define key factors for development of corporate governance in both entities in Bosnia and Herzegovina.

Methodologies which will be used in this paper are: analysis and comparison of legal systems in entities, calculation and comparison of ownership concentration and the application of standards of transparency in both entities. After analyzing the results characteristics of the corporate governance system will be defined and the results with previous theoretical notions related to countries in transition will be compared.

2 corporate governance in Bosnia and Herzegovina

The concept of corporate governance is very wide and there are many approaches by which it is defined, each being related to the analysis of governing structures and processes in corporations. According to the definition of OECD (Organisation for Economic Cooperation and Development) *„Corporate governance involves ... a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders…"*[140]

[140] Organisation for Economic Co-Operation and Development: OECD Principles of Corporate Governance, OECD Publication, Paris, 2004., p. 12.

In every country, corporate governance is defined and regulated by a set of laws and bylaws that regulate this area and represent the formal legal framework. In addition to this there are also rules that are defined within or between corporations. Corporate governance in Bosnia and Herzegovina is within the jurisdiction of entities, and there are two substantially aligned and yet completely distinct corporate governance systems, which separates Bosnia and Herzegovina as a state in the international environment into a specific category in terms of corporate governance. The Brcko District, territory of Bosnia and Herzegovina that further complicates this story with its separate institutional framework, should not be forgotten here either. In Bosnia and Herzegovina and other transition countries alike, the roots of what is now called corporate governance lie in privatization initiatives, which grew stronger from the late seventies and during eighties, and gained their full momentum in the 1990s (Nezirić, 2005, pp. 238 – 354).

This study will examine and compare corporate governance in the entities of the Federation of BiH and the Republic of Srpska because they have organized financial markets, securities markets in Sarajevo and Banja Luka, and therefore regardless of the specific position of the Brcko District, corporations based in Brcko can be taken into consideration only if their shares are traded on some of the entity stock exchanges.

3 Institutional framework for corporate governance in the entities of Bosnia and Herzegovina

As already written, institutional framework for corporate governance in all countries includes a set of laws and bylaws covering various areas of corporate governance. The complexity of the state system of BiH has determined the complexity of the overall legal framework as well. It can be said that there are three separate corporate governance systems in Bosnia and Herzegovina, and they are related to two entity systems, and the Brcko District (Papac at al., 2011). This study will analyze and compare the two entity-level institutional frameworks, and draw conclusions on similarities and differences between characteristics of the corporate governance systems in the entities. The institutional framework for corporate governance in BiH is shown in Table 1, which provides an overview of all regulation areas and entity laws covering these areas.

Table 1 – Institutional framework for corporate governance in Bosnia and Herzegovina

I.	**State/BiH level of regulation**	
1.	Law on the Central Bank of Bosnia and Herzegovina ("Official Gazette of BiH", Nos. 1/97, 29/02, 8/03, 13/03, 14/03, 9/05 and 76/06)	
2.	Law on Deposit Insurance in BiH ("Official Gazette of BiH", Nos. 20/02,18/05, 100/08 and 75/09)	
3.	Law on Accounting and Auditing of Bosnia and Herzegovina ("Official Gazette of BiH", No. 42/04)	
4.	Framework Law on Privatization of Enterprises and Banks in Bosnia and Herzegovina ("Official Gazette of BiH", Nos. 14/98, 12/99, 14/00, 16/02 and 88/05)	
II.	**Federation of BiH**	**Republic of Srpska**
1.	Law on Privatization of Enterprises ("Official Gazette of FBiH", Nos. 27/97, 8/99, 32/00, 45/00, 54/00, 27/01, 27/02, 61/01, 33/02, 28/04, 44/04, 42/06 and 4/09)	Law on Privatization of State Capital in Enterprises ("Official Gazette of RS", Nos. 51/06, 1/07, 53/07, 41/08, 58/09 and 79/11)
2.	Law on Opening Balance Sheet of Enterprises and Banks ("Official Gazette of FBiH", Nos. 12/98, 40/99, 47/06, 38/08 and 65/09)	Law on Opening Balance Sheet of the Republic of Srpska ("Official Gazette of RS", No. 24/98)
3.	Law on Privatization of Banks ("Official Gazette of FBiH", Nos. 12/98, 29/00, 37/01 and 33/02)	Law on Privatization of State Capital in Banks ("Official Gazette of RS " Nos. 24/98, 5/99, 18/99 and 70/01)
4.	Law on Foreign Investments ("Official Gazette of FBiH ", Nos. 61/01 and 50/03)	Law on Direct Foreign Investments ("Official Gazette of RS", No. 17/99); Law on Foreign Investments ("Official Gazette of RS ", Nos. 25/02 and 24/04)
5.	Law on Banks ("Official Gazette of FBiH" Nos. 39/98, 32/00, 48/01, 41/02, 58/02, 13/03, 19/03 and 28/03)	Law on Banks of the Republic of Srpska ("Official Gazette of RS" Nos. 44/03, 74/04 and 116/11)
6.	Law on Companies ("Official Gazette of FBiH",	Law on Companies – "Zakon o privrednim društvima"

	Nos. 23/99, 45/00, 2/02, 6/02, 29/03, 68/05, 91/07, 84/08, 88/08, 7/09, 63/10 and 75/13)	("Official Gazette of RS", Nos. 127/08, 58/09, 100/11 and 67/13), upon entry into force of this law, the Law on Companies - "Zakon o preduzećima" ceased to have effect ("Official Gazette of RS" Nos. 24/98, 62/02, 38/03, 97/04 and 34/06)
7.	Law on Takeover of Joint Stock Companies ("Official Gazette of FBiH", No. 7/06)	Law on Takeover of Joint Stock Companies ("Official Gazette of RS", Nos.: 65/08 and 92/09)
8.	Law on Accounting and Auditing in FBiH ("Official Gazette of FBIH", No. 83/09);	Law on Accounting and Auditing of RS ("Official Gazette of RS", Nos. 36/09 and 52/11)
9.	Law on Bankruptcy and Liquidation ("Official Gazette of FBiH", No. 23/98)	Law on Compulsory Settlement, Bankruptcy and Liquidation ("Official Gazette of SFRY No. 84/89"), which is applied in the Republic of Srpska on the basis of Article 12 of the Constitutional Law on the Implementation of the Constitution of the Republic of Srpska ("Official Gazette of RS" No. 21/92)
10.	Law on Liquidation Procedure ("Official Gazette of FBiH", No. 29/03)	Law on Liquidation Procedure ("Official Gazette of RS" No. 21/92)
11.	Law on Bankruptcy Procedure ("Official Gazette of FBiH", Nos. 29/03, 32/04 and 42/06)	Law on Bankruptcy Procedure ("Official Gazette of RS", Nos. 67/02, 77/02, 38/03, 96/03, 68/07, 12/10 and 16/10)
12.	Law on Securities Market ("Official Gazette of FBiH ", No. 85/08)	Law on Securities Market ("Official Gazette of RS", Nos. 92/06 and 34/09))
13.	Corporate Governance Code for companies listed on the market of the Sarajevo Stock Exchange by the decision of SB of the Sarajevo Stock Exchange No. 80/1/09	Corporate Governance Standards (Official Gazette of RS No. 117/11), upon their entry into force the Standards Governing Joint Stock Companies, ("Official Gazette of RS", No. 3/06) ceased to be effective.
14.	IAS and IFRS	Standards for preparation and publication of financial reports. Application of the standards is aimed at harmonizing accounting standards and financial reports.

Source: Papac, N. (2015): *Corporate governance and financial performance, doctoral thesis, p.122*

The institutional framework for corporate governance in Bosnia and Herzegovina consists of 18 different regulation areas (of which there are four primary laws at the state level and 14 entity laws) and two entity-level corporate governance codes. Based on all the above, it can be concluded that corporate governance in Bosnia and Herzegovina is based on two mostly aligned, but still significantly different institutional frameworks. In addition, the existing legal framework also suggests that corporate governance development trends taking place in the entities are opposite, with the Republic of Srpska moving to a one-tier system, and the Federation of BiH to a two-tier system of corporate governance. All this distinguishes Bosnia and Herzegovina in the international environment because it deviates from the international corporate governance recommendations and standards advocating a single system, brought into line with international standards (ROSC, 2006).

4 Comparison of corporate governance systems in the entities of Bosnia and Herzegovina

Characteristics of a corporate governance system are determined according to who has the key position and role for relations in the corporation. Depending on whether external or internal structures have the crucial position, we differentiate open (market or outsider system) and closed system (internal or insider system) of corporate governance (Clarke, 2007). The fundamental characteristics of an open system is that the control over management and the corporation is held by external stakeholders, and these are capital markets and behavior of investors in them. On the other hand, the characteristics of a closed system is that the control over the corporation is held by internal stakeholders, or majority shareholders and management (Clarke, 2007).

A comparison of characteristics of corporate governance systems of corporations in the entities of Bosnia and Herzegovina will be analyzed in terms of concentration of ownership, role and importance of stakeholders and business transparency of the observed corporations in both entities.

4.1 Concentration of ownership and corporate governance in Bosnia and Herzegovina

In order to compare the characteristics of corporate governance systems in the entities of Bosnia and Herzegovina, data on concentration of ownership of non-financial and financial corporations will be integrated and compared.

Eighty-seven non-financial corporations from entity stock exchanges, selected based on the criteria of quality and liquidity of shares, will be analyzed, where the first two quality levels are selected based on the criteria of entity stock exchanges, of which 49 corporations are situated in the Federation of BiH, and 38 are situated in the Republic of Srpska (Table 2). With respect to financial corporations (banks and insurance companies), the study examined all the banks (28 in total, of which 18 are located in FBiH and 10 in RS) and all the insurance companies (23 in total, of which 13 are located in FBiH, and 10 in RS) that had operating licenses issued by relevant entity agencies (Tables 3 and 4).

Table 2 – Ownership concentration in non-financial corporations

	Federation of BiH (n=49)	**Republic of Srpska** (n=38)
Owner 1	49,27	54,32
Owner 2	13,85	12,46
Owner 3	7,60	6,85
Owner 4	4,20	5,19
Owner 5	3,08	3,52
Owner 6	2,22	2,38
Owner 7	1,79	1,76
Owner 8	1,48	1,21
Owner 9	1,04	0,88
Owner 10	0,81	0,61
Concentration of 10 largest owners	**85,34**	**89,17**

Source: Analysis of the author according to the data of the Securities Registry of FBiH and the Securities Registry of RS.

From the presented data (Table 2), it can be concluded that concentration of ownership is high in both entities. The largest owner on the average has 50% of capital and thereby control over the corporation too. Corroboration of ownership concentration being very high is shown by the fact that the first three owners control more than 2/3 of the capital or voting rights at shareholders' meetings. All this proves the fact that, regardless of legal differences between the entities, the real characteristics of the corporate governance systems in terms of ownership concentration are very similar in non-financial corporations in Bosnia and Herzegovina. It can be concluded that non-financial corporations in both entities have the characteristics of a closed corporate governance system.

Table 3 shows the concentration of ownership in banks in the entities, where all 28 banks (out of which 18 are situated in FBiH, and 10 in RS) are analyzed.

Table 3 – Ownership concentration in banks

	Federation of BiH (n=18)	**Republic of Srpska** (n=10)
Owner 1	62,85	73,98
Owner 2	9,63	10,01
Owner 3	4,95	4,27
Owner 4	2,37	2,69
Owner 5	1,93	1,56
Owner 6	1,63	1,44
Owner 7	1,51	1,09

Owner 8	1,43	0,66
Owner 9	1,32	0,31
Owner 10	0,88	0,27
Concentration of 10 largest owners	**88,51**	**96,26**

Source: *Analysis of the author according to the data of entities' securities registries.*

From the presented data (Table 3), the concentration of ownership in banks in both entities is very high. The largest owner, on the average, has a controlling block of shares, indicating that this is a closed corporate governance system in both entities. This shows that the banking sector in both entities has the characteristics of a closed corporate governance system, which is very similar to the situation in the Central European countries and transition countries. Consequently, it is the majority owner who has the major influence on management of the banks, and who elects it too, in fact the majority owner defines management of the banks and its supervising mechanisms.

Table 4 shows the concentration of ownership in the insurance sector, where all 23 insurance companies (of which 13 are situated in FBiH, and 10 in RS) are analyzed.

Table 4 – Ownership concentration in insurance companies

	Federation of BiH (n=13)	**Republic of Srpska** (n=10)
Owner 1	70,97	78,02
Owner 2	9,08	12,08
Owner 3	5,34	5,17
Owner 4	2,00	1,59
Owner 5	1,39	0,49
Owner 6	1,26	0,36
Owner 7	1,06	0,32
Owner 8	0,80	0,29
Owner 9	0,72	0,26
Owner 10	0,66	0,26
Concentration of 10 largest owners	**93,28**	**98,84**

Source: *Analysis of the author according to the data of entities' securities registries.*

The conclusion on ownership concentration in the insurance sector is almost identical to the conclusion in the banking sector. It is evident that the first owner has absolute control of ownership in both entities (in most cases more than ¾ of the total capital) and thereby absolute control of management too. All this shows that the insurance sector in both entities has the characteristics of a closed corporate governance system. Consequently, in the insurance sector too we can conclude that it is the majority owner who has the major influence on management and who elects it and defines the mechanisms of supervising it.

Summarizing the conclusions drawn from ownership concentration analysis in the entities in the non-financial (Table 2) and financial (Tables 3 and 4) corporations, it can be concluded that ownership concentration is very high in all observed sectors and that all observed corporations have the characteristics of a closed corporate governance system.

Theoretical propositions of a closed corporate governance system state that a closed system has concentrated ownership where owners of control blocks are holders of power in the corporation, and control of the corporation is dominated by internal mechanisms of corporate governance.

If we analyze the results of the study on ownership concentration for all observed groups of corporations, it can be concluded that the first owner, on the average, has a controlling block of

shares in both entities, and that ownership is concentrated, or that the concentration of voting power is in the hands of the largest shareholders. If we add to this the assumption of pyramiding of ownership, the conclusion is that the majority owner has absolute control over management and business operations, which are also often intertwined or are the same persons in these situations.

In addition, the primary method of financing of non-financial corporations are bank loans (which is a common characteristic of closed systems), while financial markets do not have almost any significance in financing. All this implies that all the power in these corporations is concentrated in the hands of majority owners and stakeholders (banks and related companies) (Morck, 2002).

It can be concluded that the differences in terms of concentration are very small in both entities and that the observed corporations have the distinct characteristics of a closed corporate governance system.

4.2 The policy of relations with stakeholders

Good corporate governance depends on balanced relations between different internal and external mechanisms that ensure management efficiency and help solve problems and conflicts in corporate structures.

For the comparison of corporate governance systems in the studied corporations in the entities of Bosnia and Herzegovina, apart from ownership concentration we also compared the policy of relations with stakeholders, and that includes the following:[141]

- Relations with stakeholders in corporations;
- Transparency of business operations of corporations;
- Transparency in the operation of governing bodies in corporations;
- Structure of governing bodies in corporations.

For the purposes of this part of the study, 87 non-financial corporations are analyzed from the first two groups of the highest-quality shares on entity stock exchanges, 49 of which are selected from the Federation of BiH and 38 from the Republic of Srpska.

Financial corporations are not compared in this part of the study because there is a significant difference in the regulation of financial and non-financial corporations, where the differences in corporate governance standards between financial and non-financial corporations cannot be objectively compared and explained.

The analysis of relations with stakeholders compared the policy of management's relations with all stakeholders (Table 5). Analyzing the policy of relations with stakeholders, it was compared how many corporations have an active website, publish general acts, publish reports on business operations in the local and foreign languages, and submit reports to the entity stock exchange.

Table 5 – The policy of relations with stakeholders in non-financial corporations

	Federation of BiH (n=49)	**Republic of Srpska** (n=38)
Website	80,61%	94,74%
Corporation's general acts	22,45%	68,42%
Report on overall business operations for the previous year	61,22%	80,26%
Reports in foreign languages	20,41%	10,53%
Submitting reports to the entity stock exchange	94,90%	98,68%

Source: *authors*

[141] European Parliament and Council: Directive 2004/109/EC, 2004, pp. 40-49.

The analysis shows that most corporations have websites (80.61% in FBiH and 94.74% in RS), but as far as publishing of general acts is concerned, corporations in RS are significantly more active and responsible (22.45% in FBiH and 68.42% in RS), while the availability of reports in foreign languages is at a very low level in both entities. Regarding the submission of reports to entity stock exchanges, this is where corporations are highly responsible and almost all submit some reports to the entity stock exchange. Good cooperation with entity stock exchanges is the result of formally defined relations with the stock exchanges.

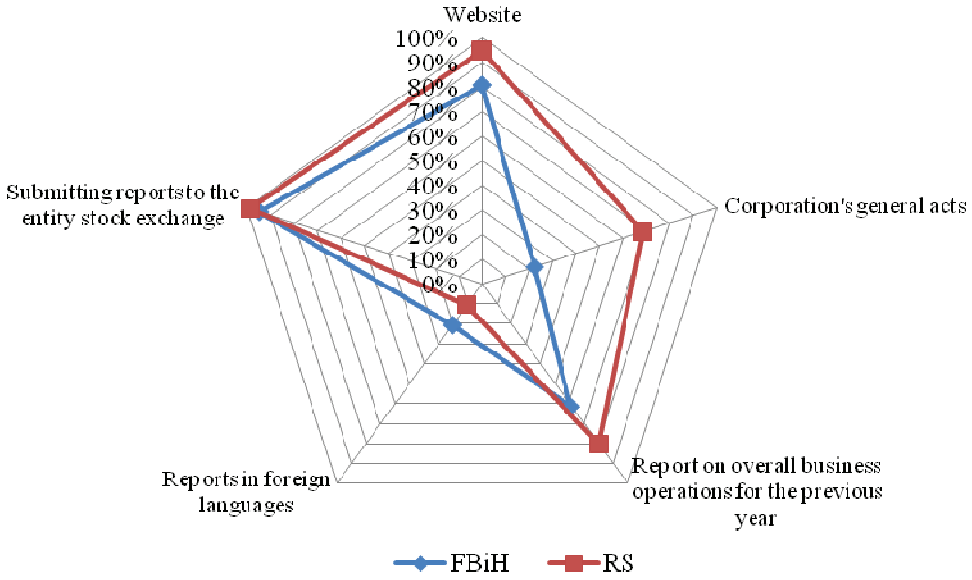


Figure 1 - The policy of relations with stakeholders in the entities in BiH
Source: authors

As for the policy of relations with stakeholders (Figure 1), it can be concluded that corporations have established communication channels (websites and official reports), but more than 2/3 of corporations do not meet the stakeholder relations standards. When comparing the results for entities, differences in the policy of relations with stakeholders are not big, but they still exist. Corporations in the Republic of Srpska have somewhat higher level of responsibility in creating the policy of relations with stakeholders, which is the result of earlier introduction and development of corporate governance.

The analysis of business transparency of the observed corporations (Table 5) compared the key standards that are defined by the transparency directive, and these are:[142]

a) uniform publication deadlines - four months after the end of the reporting period for annual financial reports and two months for interim financial reports;
b) annual reports should contain audited financial reports and management report;
c) publications must be available to the public for at least five years;
d) semiannual financial reports according to IAS 34 must contain additional management report;
e) interim management reports for issuers of shares in the first and third quarter, and
f) mandatory publication on the Internet.

Table 6 shows a comparison of compliance with transparency standards in the entities for the observed corporations.

[142] European Parliament and Council: Directive 2004/109/EC, 2004, pp. 40-49.

Table 6 – Transparency of business operations of non-financial corporations

	Federation of BiH (n=49)	**Republic of Srpska** (n=38)
Business objectives	62,24%	68,42%
Reports from shareholders' meetings	50,00%	78,95%
Reports on events of special relevance to financial operations	40,82%	47,37%
Information on potential business risks	30,61%	36,84%
Auditor's report and opinion	38,78%	60,53%
Publication of semiannual or quarterly reports	56,12%	68,42%
Number of years for which reports are published	4,00	5,66
Published reports for five or more years	79,59%	92,11%
Not having any published annual reports	0,00%	0,00%

Source: *authors*

From all the above, it can be concluded that the level of business transparency in corporations in the Republic of Srpska is significantly higher than in the Federation of BiH; this especially applies to the length of the period for which reports are published, as well as the number of corporations that have published reports for 5 and more years. It is particularly important to emphasize here that in both entities almost half of the observed corporations have not published reports on events of special interest for financial operations, and neither have they published reports on potential risks. In the Federation of BiH, only 50% of corporations have published reports from shareholders' meetings. What is positive and needs to be stressed is the fact that in both entities there is not a single corporation that has not published any report.

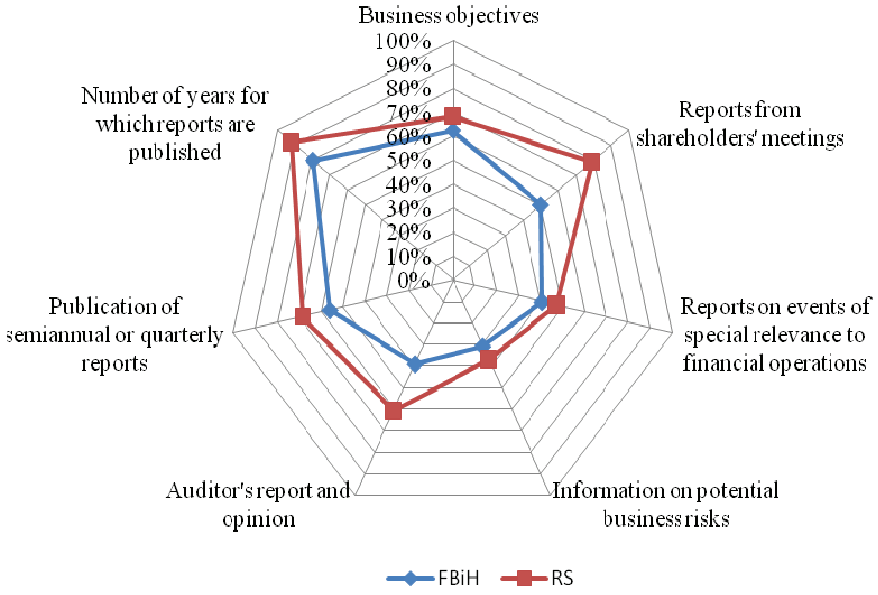


Figure 2 – Business transparency of corporations in Bosnia and Herzegovina
Source: *authors*

If conclusions concerning business transparency are summarized (Figure 2), it can be concluded that corporations have developed channels of communication, but the level of compliance with the above standards is about 50% in both entities, which confirms that transparency of business operations is a fundamental problem and space for improvement of corporate governance in both entities. As for the comparison of compliance with business transparency standards, the entity of the Republic of Srpska is currently at a significant advantage

over the Federation of BiH, and it can be assumed that the main reason is the earlier adoption and continued development of the institutional framework for corporate governance.

Transparency of the organization and operation of governing bodies in corporations in Bosnia and Herzegovina (Table 7) was evaluated by analyzing the availability of data on members of governing bodies and shareholders of the corporations.

Table 7 – Transparency of governing bodies in non-financial corporations in Bosnia and Herzegovina

Criteria	**Federation of BiH** (n=49)	**Republic of Srpska** (n=38)
Names of members of Board of Directors	73,47%	69,74%
Names of members of Supervisory Board	69,39%	- *
Publication of the list of shareholders with the share of more than 5%	70,41%	63,16%
Publication of the list of shareholders with the share of less than 5%	70,41%	63,16%

Source: *authors*

* According to the Law on Companies ("Official Gazette of the Republic of Srpska" Nos. 127/08, 58/09 and 100/11) supervisory boards are not defined or anticipated in private companies.

As it can be seen in Table 7, almost two thirds of all the observed corporations publish names of members of governing bodies. Considering the fact that according to the Law on Companies in RS ("Official Gazette of the Republic of Srpska", Nos. 127/08, 58/09, 100/11 and 67/13) supervisory boards are not anticipated in RS in private joint stock companies, data for supervisory boards are not shown in this analysis. In all public joint stock companies in the Republic of Srpska supervisory boards exist, while in private ones they do not exist, as stipulated by this law. As for the transparency in the organization and operation of members of governing bodies, compliance with the standards in both entities is at a very similar level and only 2/3 comply with the overall prescribed standards.

Table 8 shows a comparison of the structure of members of supervisory boards in corporations in the Federation of BiH and non-executive directors in the Republic of Srpska who perform a function equivalent to the function of supervisory board members, pursuant to the Law on Companies. Besides, Table 8 also compares the gender structure of members of governing bodies.

Table 8 – Structure of governing bodies of non-financial corporations in Bosnia and Herzegovina

	Federation of BiH (n=49)	**Republic of Srpska** (n=38)
Number of members of SB/non-executive directors	4,00	3,18
President of SB - woman/non-executive directors	18,37%	31,58%
Number of members of SB/women	0,69 17,35%*	0,45 14,05%*
Number of members of Boards of Directors	3,39	4,87
President of Board of Directors – woman	8,16%	7,89%
Number of members of Boards of Directors/ women	0,57 16,87%**	0,58 11,89%**

Source: *authors*

* Percentage of female presidents of SBs or non-executive directors in relation to the total number of them.

** Percentage of female presidents of Board of Directors in relation to the total number of them.

From the data shown in Table 8, it is evident that, despite the shift from two-tier to one-tier model of corporate governance, the number of members of supervisory boards in the Federation of BiH on the average equals the number of non-executive directors members of a single board in the Republic of Srpska. Boards of directors in the Republic of Srpska have a slightly larger number of members than in the Federation of BiH, and that is contributed by private corporations which, according to the Law on Companies, do not have obligation to have supervisory boards, so non-executive directors are also included in the total number of members of boards of directors.

The number of female members of boards of directors and presidents is, on the average and as a percentage, below 15% both in the Republic of Srpska and in the Federation of BiH, so it can be said that men dominate in the management of corporations in both entities.

If we summarize the conclusions of the analysis of relations with stakeholders, we can conclude that corporations equally in both entities in Bosnia and Herzegovina retain all the weaknesses of a closed corporate governance system. This primarily concerns all aspects of business transparency where, regardless of all transparency channels being developed, this area still represents a weak point and is one of the most important segments for improvement of corporate governance in both entities.

5 Concluding considerations

Corporate governance shows how rights and responsibilities are distributed among different stakeholders in corporations. We relate corporate governance to the issues of power, authority and responsibility in the performance of the primary activity, i.e. it provides an answer to the question who controls the corporation, why and in whose interest. It includes the mechanisms of coordination between various stakeholders, aimed at satisfying the needs of each of the stakeholders, while ensuring survival of the corporation.

Corporate governance in Bosnia and Herzegovina is within the jurisdiction of entities, and there are two substantially aligned and yet entirely distinct corporate governance systems.

The institutional framework for corporate governance in Bosnia and Herzegovina consists of two entity-level institutional frameworks that include 18 different regulation areas (of which there are four primary laws at the state level and 14 entity laws), entity codes (related to entity stock exchanges) to which other international standards are added. Based on all this, it can be concluded that corporate governance in Bosnia and Herzegovina is based on two mostly aligned, but still significantly different institutional frameworks.

Comparison of characteristics of corporate governance systems was carried out by observing key internal mechanisms, such as ownership concentration, business transparency and policy of relations with stakeholders.

In both entities the ownership concentration of the studied corporations is very high, where the largest owner on the average has at least 50% of capital and thereby control of the corporation. Corroboration of ownership concentration being very high is shown by the fact that the first two owners control more than 2/3 of capital or voting rights at shareholders' meetings in both entities. All this indicates that corporations in both entities have the characteristics of a closed corporate governance system and that, regardless of legal differences between the entities, the real characteristics of the corporate governance systems are very similar.

When we compare the relations with stakeholders, the conclusion is that corporations in both entities keep all the weaknesses of a closed corporate governance system. This primarily concerns

the low level of business transparency regardless of the fact that all the necessary transparency channels have been developed and prepared. Examining the policy of relations with stakeholders and business transparency, it is still evident that corporations from the entity of the Republic of Srpska presently satisfy a higher level of corporate governance standards and are at an advantage over the corporations from the Federation of BiH. The main reason of this difference can be assumed to be in the fact that institutional framework for corporate governance was earlier adopted and continuously developed in the Republic of Srpska. Regardless of all this, however, the share of corporations that accept these standards ranges from one half to two thirds of the observed corporations, which is still significantly below the desired level.

Summarizing all this, it can be concluded that there are two separate and distinct corporate governance systems in the entities of Bosnia and Herzegovina. In both the entities, corporations have the characteristics of a closed corporate governance system with all its weaknesses, and these are the fact that power is concentrated in the hands of the majority owner, that management is centralized by the majority owner, and that there are problems with business transparency and relations with key stakeholders. All these business segments represent the basis and guidelines for improving the standards and practice of corporate governance in both entities in Bosnia and Herzegovina.

References

1. Clarke, T. (2007), *International corporate governance: A comparative approach*. New York: Routhledge.
2. IMF. (2006), *Bosnia and Herzegovina: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision and Corporate Governance (ROSC)*, IMF Country Report No. 06/403, Washington
3. IMF. (2008) *Bosnia and Herzegovina: Report on the Observance of Standards and Codes—Data Module, Response by the Authorities, and Detailed Assessment Using the Data Quality Assessment Framework (DQAF)*, IMF Country Report No. 08/43, Washington
4. Legal framework related to legal position of companies in Bosnia and Herzegovina.
5. Matić, B., Papac, N. (2010), *Osobine sustava corporate governance u bankama u Bosni i Hercegovini*, Ekonomski vjesnik, Ekonomski fakultet u Osijeku, god. XXIII, br. 1/2010, Osijek.
6. Matić, B., Papac, N. (2010), Poslovno *izvještavanje kao mehanizam corporate governance u bankama u Bosni i Hercegovini*, Zbornik radova Ekonomskog fakulteta Sveučilišta u Mostaru XVI., Mostar.
7. Morck, R. (2002), *A history of corporate governance oround the world - family business group to proffesional managers*. New York: NBER.
8. Nezirić, D. (2005), *Korporativno upravljanje - pokretač razvoja tržišne ekonomije*. Poduzetnička ekonomija vol. IX 12/2005 , pp. 238-354.

9. *OECD Principles of Corporate Governance*. (2004), Pariz: Organisation for Economic Co-operation and Development.
10. Papac, N. (2013), *Measuring the quality and characteristics of system od corporate governance in Bosnia and Herzegovina*. Zbornik radova – Jurnal of economy and business, Ekonomskog fakulteta Sveučilišta u Mostaru XIX., Mostar.
11. Papac, N. (2015), *Corporate governance and financial performance*, doctoral thesis, p.122
12. Račić, D. i Cvijanović, V. (2006), *Stanje i perspektive korporativnog upravljanja u Republici Hrvatskoj*. Zbornik radova Ekonomskog fakulteta u Zagrebu god. VI , pp. 205 - 216.
13. Tipurić, D. (2006), *Nadzorni odbor i korporativno upravljanje*. Zagreb: Sinergija.

MONITORING COMMITTEES OF THE COMPANY AS A FACTOR FOR DEVELOPMENT OF ECONOMY IN BOSNIA AND HERZEGOVINA - EXAMPLE NO PUC " SAPNA "

Author: mr. Fatima Gušić[143]

Apstrakt

The last decade of the economy enterprises in Bosnia and Herzegovina constantly has a negative balance and a declining path which is logical because the management of those companies left unprofessional staff and managers who are not accountable for successful management. Instead of responsibility for the results, they are required only obedience and execution of party goals, so that domestic enterprises, due to its low efficiency and poor efficiency, continuously generate losses which must be compensated from the state / municipal registers. This results in the release of workers, permanent or daily strikes laid-off workers, reducing the quality of the economy throughout the state, and thus the drop in the standard and quality of life of its citizens.

Governance of public companies and companies with majority state capital at the local level does not differ from that of structures at higher levels in Bosnia and Herzegovina, starting from the cantonal, entity and state level. What the space is smaller, and the negatives are more noticed.

It is the management structure of public enterprises at the local level encouraged the author to work more comprehensive treatment of the subject of the election of the Supervisory Board recently established a local public utility company in Sapna, Bosnia and Herzegovina.

The formation of the Public Company expects a higher level of service, timely delivery of services, acceptability of prices, the increase of users of utility services, greater coverage of the territory to utilities, but also the development of the economy in general.

To the desired results actually achieved, the basic prerequisite is to have a professional, antipolitikantski and quality control system in which a special role, the supervisory board of the company.

The aim is to process legal framework, the Founding Act and other regulations governing the field of the supervisory board as the main conditions of the development of the newly formed Public Enterprise in Sapna.

Key words: *Supervisory Board, a public company, corporation, development, Bosnia and Herzegovina*

[143] *Sapna municipality, ul. 206. Vitez Brigade bb, 75411 Sapna, Bosnia and Herzegovina*
E-mail: fatima.gusic@gmail.com, tel: + 38762 / 514-458

1. Background on public companies in the federation Bosnia and Herzegovina

Public company, in terms of the Act on Public Companies in the Federation of Bosnia and Herzegovina, is a company - a legal entity registered in the Register as a company, or a public company defined as such by a special regulation, which carries out the activities of the Public Interest (energy, communications, municipal services, management of public assets and other activities of the Public Interest).

Such a public company should have at least 50 employees, and the company in which the municipality, city, canton or the Federation of Bosnia and Herzegovina has a share in the ownership of at least 50% plus one share, or a share regardless of which business deals.[144]

Activities of the Public Interest determine municipalities, cantons and the Federation of Bosnia and Herzegovina, each within its jurisdiction.

Public companies by law can be organized as a joint stock company or limited liability companies.

Of a legal entity firm gets the date of entry in the court register. The company liable for its obligations with all its assets. Prior to entry in the register, no one can act on behalf of society.

1.1. The jurisdiction of the Public Enterprise

Any public enterprise in the Federation of Bosnia and Herzegovina performs in accordance with the law and the authorities established by law.

As its activity the company may perform all operations, except for those that by law can not perform public companies.

Public company may conduct business only in the framework of activities entered into the court registry.

It can also perform other tasks that are usually performed by the activity entered into the court registry, to the extent and in the manner required for business and do not represent the performance of such activities as regular activities.

The headquarters of the public company's place as the head office registered in the society. The seat is determined by Articles of Association or Articles of Association of the company.

1.2. Firm

The company is the name under which the Public Company operates. The company is always given to the company premises.

Company public company must include the designation "PE". Company of limited liability company must contain a mark "doo".

[144] *The Law on Public Companies in the Federation of Bosnia and Herzegovina, Official Gazette of BiH, No. 8705.81 / 98 and 22/09*

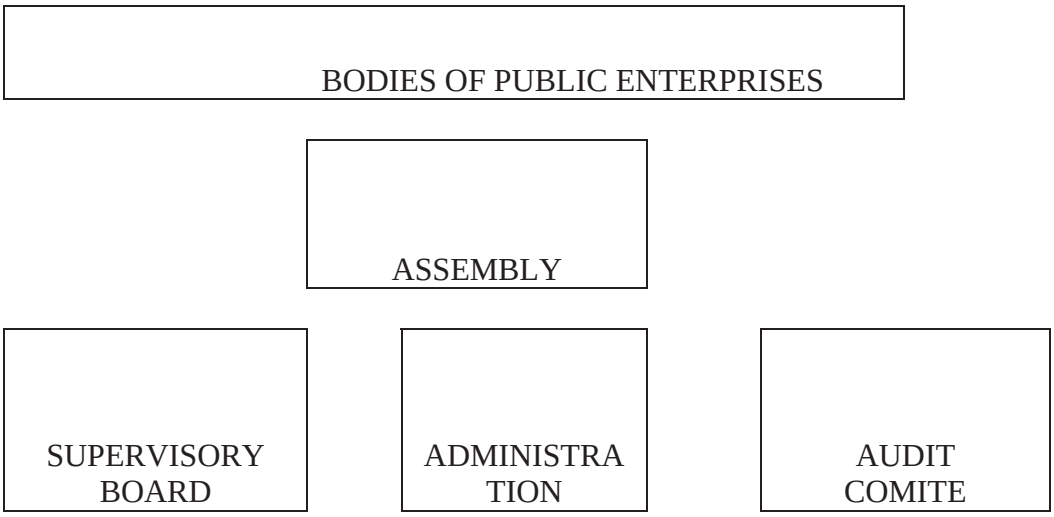
The company must be written in language that is in official use in the Federation of Bosnia and Herzegovina. The company may contain foreign words that are common, or they have no adequate words in the language in official use in the Federation of Bosnia and Herzegovina.

The company must not contain words and labels that are contrary to law, saštićene signs of other legal entities as well as the names and symbols of foreign countries or international organizations.[145]

2. Governance public enterprises

The company with the participation of state capital are composed of the following organs:
- Assembly
- Supervisory Board
- Administration (management), as well as the management and
- Audit Comite.

Table 1.- The bodies of a public company



2.1. Assembly

Assembly of a public company makes decisions stipulated by the law on Companies in the Federation of Bosnia and Herzegovina. In addition, the Assembly makes decisions about the following:
Branches within the company, at the proposal of the Supervisory Board;
- Code of Ethics on the proposal of the Supervisory Board;
- The Business Plan, the revised business plan in accordance with the Law.

Assembly reports on the activities and operations of the public company at least once a year the municipal council or the cantonal assembly, or Parliament of the Federation of Bosnia and Herzegovina.

1.3. Supervisory Board

The law defines an explicit competence of Supervisory Boards of companies.

[145] *The Company Law of the Federation of Bosnia and Herzegovina, Official Gazette of BiH, broj23 / 99, 45/00, 2/12, 29/03, 68/05, 91/07, 84/08, 88/08, 7/09, 63 / 10 and 75/13.*

In addition to the responsibilities established in the Law on Companies of the Supervisory Board has the following responsibilities:

- preparation of rules of procedure and propose them to the assembly
- preparation of a code of ethics and propose it to the assembly;
- we selection of candidates for the Board of Audit and submitted a proposal for the appointment of the Assembly;
- razmatra implementing regulation for the procurement procedure and supervise its implementation;
- give opinions Assembly on the proposal of the Management Board for the distribution of profits;
- gives authorization for activities that are restricted under the provisions of this Act;
- gives instructions to the Director for the implementation of the crime scene in connection with the identified irregularities.

The Supervisory Board of a public company comprised of at least three members. One seat on the supervisory board belongs to the candidate with the most votes from the Assembly who has been nominated by the shareholders with at least 5% of voting shares.

Chairman of the Supervisory Board may entrust one of the members exercise direct supervision over the implementation of certain decisions, in accordance with the Act, regulations and bylaws of the company. Nevertheless, the Chairman of the Supervisory Board is jointly responsible with the members of the supervisory committee entrusted with such a task to execute.

1.4. Administration

Administration or management of a public company in parallel with the powers defined by the Law on Public Companies in the Federation of Bosnia and Herzegovina, and is responsible for:

- reporting to the Supervisory Board at the request of the Supervisory Board;
- the implementation of the code of ethics;
- development and monitoring of implementation of business plans;
- drafting legislation for the process of procurement and implementation of current laws and regulations on the procedure for procurement;
- preparation of proposals on the distribution of profits;
- hiring and firing of employees in accordance with the procedures laid down in the Rules of Procedure or the Rules and the applicable legislation.

Leading business process managers perform a wide range of business activities.

Successful managers must have the appropriate managerial skills, managerial skills and management skills, in addition to desirable management experience .[146]

That is why the administration, management and top manager of public companies a great responsibility for the overall functioning and the results of the company.

2.4. The Audit Comite

The Supervisory Board of the company explicitly responsible to propose the composition of the Audit Committee, after the election of a candidate by a majority vote on the basis of open competition, with selected persons who are best qualified for the position and to supervise the

[146] *Sunje A. Top-manager visionary and strategist, tirade, Sarajevo, 2008.*

administration in implementing recommendations made by the Audit Committee and external auditors within the established time limits.

In enterprises employing more than 100 (one hundred) workers formed the audit committee and hired an independent auditor to submit an annual report on audit of public enterprises on the website of the public company, and its majority owner.

3. Public utility company "sapna" BiH

Public Utility Company "Sapna" doo based in Sapna, was founded by the Municipal Council Sapna published in the Official Gazette of Sapna, number 3/2014. The company is a legal entity that independently performs production and sales of products and provision of services in the market for profit and will operate under the name: Public Utility Company "Sapna" Ltd. Sapna. Short name the PUC "Sapna" doo Sapna.

The primary activities of the PUC "Sapna" the provision of utility services garbage collection, waste management, water supply to citizens of Sapna and winter and summer maintenance of public areas. The decision on registration of this public company may be engaged in many activities, classified in accordance with the Decision on Standard Classification of Bosnia and Herzegovina. In dealing with other activities the company will need to establish a separate business unit in accordance with the Company Law of the Federation of Bosnia and Herzegovina.

3.2. Enterprise management

The governing bodies of the Public Utility Company Sapna the Assembly, the Supervisory Board the Management Board and Audit Committee.

Enterprise management means managing people. Very few managers are trained to solve problems with staff. The most important rule of management is: "will appreciate you for your deeds, not by words and your actions establish an example to follow these". [147]

3.2.1. Assembly PUC

The highest body of governance is certainly Assembly PUC. The Assembly decides on all fundamental matters of business.

Assembly of the Company consists of the president and six members, which for each session authorization gives Mayor.

The Assembly is convened:
- administration and
- founder of the Company.

The Board is obliged to convene the Assembly at least once a year, and during the year when the Company realized a loss greater than 1/10 of core capital according to the latest annual accounts. The invitation shall indicate the agenda, time and venue of the Assembly.

The call for the Assembly shall be submitted at least 15 days before the meeting. The period starts from the date of delivery to the post office or call his sending via fax, provided that the day and day of the Assembly are not counted in calculating the deadline.

[147] *Peeling N., Top Manager, IPS Media, Beograd, 2008..*

4. The supervisory board of public utility company sapna

The Supervisory Board of Public Utility Company Sapna as a managing authority consisting of three members appointed by the Assembly of the Company at the same time, for a period of four years.

Mayor Sapna is under the authority of the Municipal Council of Sapna, appointed by the Commission for review of applications on public competition. Upon receipt of the ranking list of successful candidates conducted the procedure for election of the managing authority, in accordance with the Law on Ministerial, Government and Other Appointments in the Federation of Bosnia and Herzegovina and the Statute.

The Supervisory Board of PUC "Sapna" were appointed graduate economist for President, graduate and graduate Pravic sanitary engineer. Persons with such professional qualifications in the labor market in Sapna could politely respond to its task, although by age do not have experience in the management of public companies.

With the professional and institutional assistance and municipal authorities and the relevant municipal services expected positive results of the work and implementation of the plans of companies and municipalities as its founder.

4.1. The conditions for appointment to the Supervisory Board of PUC

According to the statute of the company one / same person may be appointed member of the Supervisory Board several times without limitations.

For members of the Supervisory Board may be a person if it meets the general requirements provided by law and has at least a university degree.

Candidates for members of the Supervisory Board shall before voting give statement in writing on their acceptance of nomination.

4.1.1. General conditions for appointment

In accordance with the law and the general conditions of competition for the appointment of persons to the Supervisory Board are:

1. that the citizens of Bosnia and Herzegovina,
2. that are older than 18 and not older than 65 years;
3.that are not dismissed from the civil service as a result of a disciplinary measure at any level of government in BiH in the period of three years before the date of the vacancy announcement;
4. that against them without a criminal record or no record of convictions for criminal acts and offenses for acts that are an obstacle for appointment to the vacant position, within five years from the date served, carried out or the statute of limitations;
5. Do not under indictment by the International Tribunal for War Crimes in Former Yugoslavia (Article IX.1 of the Constitution of Bosnia and Herzegovina);
6. That is not the function of a political party;
7. That are not elected officials, executive officeholders and advisors within the meaning of the Conflict of Interest in the institutions of government;
8. that no private financial interest in the institution in which the candidates;

9.that are not members of the management or supervisory board of another regulated authority, and if you are a candidate shall submit a certified statement that after the final appointment to deviate from the specified position within seven days of the appointment;
10. thet are not persons to whom the final judgment of the court denied to conduct activities in the position to which the candidates;
11.d are not engaged in competitive activities of the company.

4.1.2. Special conditions for appointment to Supervisory Board

In addition to the general requirements, candidates must meet the specific requirements:

- To have completed university degree / level VII, Or higher education first, second or third cycle Bologna system of study which accumulates minimum 180 credits.
- In addition to the special conditions for the governing boards of public institutions should be required to:
- enjoy a reputation in the local community;
- that have expertise in the field in which the candidates;
- to have the ability to conscientiously, responsibly and decisively carry out the vacant positions;
- to have the ability to impartial decision-making;
- to have communication and organizational skills.

As regards the specific conditions for the appointment of the supervisory and management boards of public enterprises, there is a highly defective law.

Specifically on the issue of the necessary qualifications, the Act provides for the possibility of candidacy for people who have a graduate degree and 180 ECTS Bologna system of study.

The problem is formulated in clearly defined mandatory immediate professional qualification for IT and the Board for each type of activity of each public company. For example, it is logical that the NO or the Board of Public educational institutions are persons from healthcare profession with the obligation to appoint one economist / manager. These are precisely the things that are the main causes of deterioration of state enterprises, because the management structure of the same shall be appointed mainly by inadequate people without necessary qualifications and only party cronies who fulfill the wishes of politicians and whose primary goal is not the development of the economy and companies.

4.2. The prohibition of appointing a member of PUC "SAPNA"

According to the law on conflict of interest in the Federation of Bosnia and Herzegovina, a member of the Supervisory Board can not be a person:

- convicted of a crime or economic offense incompatible with the office of the Supervisory Board, five years from the date of the final judgment, excluding the period of imprisonment;
- which is the judgment of the Court denied to conduct activities within the competence of the Supervisory Board;
- over 65 on the day of appointment;
- dealing with Concurrent activities of enterprises and
- in other cases, prescribed by law.

Director and board member of the Company may not be a member of the Supervisory Board. The same person can not be a member of the Supervisory Board in more than two companies.

4.3. The competence of the Supervisory Board of PUC "SAPNA"

Statute of municipal enterprises were established competence of the Supervisory Board as of managerial authority, as follows:

- supervises the Company's operations;
- supervises the work of the Management Board;
- approves the balance sheet and the management business at the semi-annual and annual accounts, the balance sheet and income uspjehasa audit report, If the audit is required, in accordance with the law;
- submits an annual report of the Company, the report of the Supervisory Board and the business plan for the next fiscal year;
- appointed and dismissed by the Management Company;
- elected Chairman of the Supervisory Board;
- propose distribution and manner of use of profit and manner of loss coverage;
- approve purchase, sale, exchange, taking on leasing and other transactions of property directly or through Subsidiaries during the business year to the extent of 15% to 33% of book value of total assets of the Company;
- issue general acts, whose adoption was not provided an explicit competence of the Assembly;
- establish ad hoc commissions and determine their composition and tasks;
- decide on the assessment of invested goods and rights in the equity;
- decide on amending and supplementing the activities of the Company, with the consent of the founders;
- decide on the establishment of its branch offices and other organizational forms;
- decides on the purchase and sale of fixed assets;
- adopted by the directors' report on the performed official trip abroad within 10 days of completion of travel;
- discuss and decide on the rights and obligations of employees in the appeal, in accordance with the law;
- decide on other issues determined by law.

4.4. Statutory obligations of the Supervisory Board

The president and members of the Supervisory Board shall carry out their commitments and responsibilities in accordance with the interests of the Company.

President and member of the Supervisory Board shall report to the Supervisory Board each direct or indirect interest in the legal entity with which the Company has or intends to enter into a business relationship.

In the case referred to in paragraph 2 of this Article, the President and member of the Supervisory Board can not decide on issues concerning the relationship between the Company and other legal entities in which the president and a member of the Supervisory Board shall have direct or indirect financial interest.

The president and members of the Supervisory Board are jointly and severally liable for damages caused by failure to comply or irregular compliance with their duties.

4.5 Role of the founders of the work of PUC "SAPNA”

According to the Waste Management Plan Sapna provided the planned action of the heritage Sapna during 2012-2017.godina, with the main goal of improving service and gradually expanding coverage collection and transportation of waste in a way that by 2017 include 90% population Sapna.

The system step by step, perform the separation of waste at the site of its origin, to remove illegal dumps and rehabilitate areas where they are located.[148]

In order to implement the plan, the first and highest priority task is the institutionalization of the subject, and the establishment of the Public Company in the area of Sapna to provide utility services.

Municipality or District Council Sapna as a founder of the Public Utility Company law has provided for authority in cooperation with the PUC in terms of monitoring, consideration of the report on the work of the Public Utility Company, the Supervisory Board and others.

Department of Administration Sapna responsible for utilities required in accordance with the law provide necessary assistance to the company and to implement measures aimed at the realization of the work plan, inspection and imposing penalties on violators of public order, in order to preserve the environmental protection area where there are local prosecution.

Upon the completion of the tender procedure for the election of members of the Supervisory Board of the Public utility company "Sapna", Assembly of the Company appointed by the Supervisory Board for a term of four years ago. The Supervisory Board consists of highly educated people economic, legal sanitary professions, which are expected professional and impartial work, free from political influence.

Members of the Supervisory Board, as well as members of the Assembly of the Company by a special decision is determined and compensation for their work.

Conclusion

The supervisory boards of public companies and companies with state capital can be efficiently and effectively managed public companies Only if you are composed of educated professionals who through their professionalism and impartiality to carry out legally defined tasks.

The Supervisory Board should appoint trained professionals with the necessary qualifications non-political players or docile political parties and for each specific Supervisory Board or Board of Directors appoint people of specific training of qualifications corresponding to the activities of the public enterprises.

To Public Utility Company "Sapna", Bosnia and Herzegovina, had a positive balance of its business, timeliness of service delivery and ecologically clean environment its supervisory board should:

- Have the necessary authority, competence and objectivity in performing legal functions of strategic leadership and oversight of the company management;

[148] *Waste management plan Sapna 2012-2017., Sapna 2012.*

- Have a clear mandate and ultimate responsibility for the performance of the company. NO should be fully responsible to the founders / owners and to act in the best interests of the company;
- To carry out its responsibility to supervise the management and strategic guidance, in line with the objectives set by the Municipal Council as the founder / owner;
- Functions of the President of the Supervisory Board should be separate from the director as general manager of the company;
- On its work and adopted decisions should regularly inform the public through local media, websites and bulletin boards PUC;
- Advocate permanently training of management and employees of the PUC to be competitive in the market of utility services;
- The Supervisory Board shall conduct an annual assessment of the performance of public enterprises;
- Advocate a one-year reward system employees to work performance and contribution to good marketing companies.

This work of the supervisory boards of state-owned enterprises is a guarantee of productive work, the realization of the planned annual plans, performance indicators and increase the survival of a public company.

With a quality monitoring committee for the possibility of strikes by workers is almost no or reduced to minimal chances.

References

1. Babić M., S. Milic, Sunje A. Puljic M., Corporate governance principles and mechanisms, Revocin, Sarajevo, 2008.
2. Decision on the Establishment of the PUC "Sapna" doo Sapna, Official Gazette No. 4/2014., Sapna, 2014.
3. Law on Public Companies in the Federation of BiH, Official Gazette of BiH, No. 8/05, 81/08 and 22/09.
4. Law on Companies in the Federation of Bosnia and Herzegovina, Official Gazette of BiH, No. 23/99, 45/00, 2/12, 29/03, 68/05, 91/07, 84/08, 88/08, 7 / 09, 63/10 and 75/13.
5. Law on Ministerial, Government and Other Appointments in the Federation of Bosnia and Herzegovina, Official Gazette of BiH, No. 12/03.
6. Law on Conflict of Interest in the institutions of the Federation of BiH, Official Gazette of BiH, No. 70/08.
7. OECD guidelines for corporate governance in state enterprises, Revicon, Sarajevo, 2008.
8. Plan for waste management Municipality Sapna 2012-2017., Sapna, 2012.
9. Peeling N. Top Manager, IMS media, Belgrade, 2008.
10. Sunje A. Top-manager visionary and strategist, tirade, Sarajevo, 2008.
11. The decision on the appointment of the Supervisory Board of PUC "Sapna" doo Sapna, Official Gazette No. 3/2015., Sapna, 2015.
12. The Statute PUC "he whispered," Sapna 2014.

FINANCIAL RESTRUCTURING IN THE FUNCTION OF RECOVERY OF COMPANIES

Dr Saša Vučenović[149]

MSc Dragan Milovanović[150]

Abstract

The concept of restructuring the healing function of the company, appears in the business world in the last thirty years. Scientific research works in the context of recovery enterprise, analyze and symptoms, causes and factors of the crisis in business. Given that each company is different in its essence functioning, application of the concept of financial restructuring is necessary to respect the situational (contingent) approach. In this paper, the analysis of the importance of financial restructuring recovery companies, analysis of the sources of financing in the process of restructuring the company, if the analysis of the situation in the EU, Serbia and Republic of Srpska.

Keywords: *Financial restructuring, finance, recovery strategies;*

[149] Ekonomski fakultet, Univerzitet u Banjoj Luci, Majke Jugovića 4, 78000 Banja Luka, E-mail: sasa.vucenovic@efbl.org

[150] Ekonomski fakultet, Univerzitet u Banjoj Luci, Majke Jugovića 4, 78000 Banja Luka, E-mail: dragan.milovanovic@efbl.org

Introduction

Current trends change, especially during the last economic crisis generated major changes in business. Companies transition country as such, are exposed to processes of constant change and adaptation. In order to respond to the challenges of change, companies need to change the philosophy, concept, strategy and structure of its business, that is. need to be restructured. Measures in the field of financial restructuring can help repair, financial stabilisation and recovery in certain circumstances the company by improving the financial performance of business enterprises. There is almost no enterprise in the course of their lifetime is not faced with the crisis and the need of recovery. One of the ways of reacting to the situation certainly is a financial restructuring of the company. In this regard, the paper will analyse the role and importance of the financial restructuring, with all its elements to the recovery companies. S that regard, in practise it is difficult to make a clear distinction between the effects of the measures of certain forms of restructuring. In this regard, the focus of the work will respect the given approach, which analyses the financial restructuring as part of the overall system of measures restructuring companies striving recovery. Central research questions that are embodied through the issue of lab or, and to which we look for the answer in the paper were: ,,What is and what the significance of the financial restructuring to recover the company, which sources of funding are used in the process of financial restructuring of the company, what is the situation and what are the and how important differences in the countries of Western Europe, Central and Eastern Europe, what in Serbia and Republic of Srpska? ". In this regard, the main problem of the research is: ,, How much and what is the significance of the financial restructuring of the company in the process of recovery?" The scientific objective of the study was to connect through econometric analysis and quantitatively evaluate the effects of individual measures of financial restructuring, through effective modelling of sources of financing of the restructuring, the recovery of the company. In this connection we tested basic research hypothesis Ho: ,,Bank loans are the most important source of financing for enterprise restructuring in Republic of Srpska" We also believe that there are significant differences in score in Republic of Srpska in relation to the countries of Western Europe, Central and Eastern Europe, as well as Serbia.

After the introductory part, the first part of the problem of research is analyzed from the perspective of research through scientific literature. The second part is titled,, research methodology and sample analysis, "where it lays the basic methodological concept research, conducted sampling and applied scientific research methods. In the third part of the paper presents the results of research and discussion of the results is carried out. In the final part of the paper elaborated concluding observations on the basis of scientific research.

1. Review of the literature and previous research

In the following paper we will try to point out the legality of research issues that we address in this paper. Case study analysis showed that most often managers are not sufficiently aware of the crisis and are simply not able to distinguish the different levels of crisis. In this regard, often consciously apply the recovery strategy of companies, due to their positions or essentially due to the lack of knowledge and inexperience. In the given situation, are necessary significant activities in the domain of strategic restructuring, and in the direction of recovery of companies. When defining concrete measures for the recovery of enterprises, it is necessary to analyse specific information on the diagnosis of the crisis situation. For proper diagnosis of the crisis it is necessary to an adequate analysis of the symptoms and causes of the crisis in business. High-quality diagnosis of the state of crisis in the company often requires involvement of external experts, as well as assembling a professional team - the team for the recovery of the company. Financial restructuring refers to changes that occur in the capital structure of the company (Todorović, 2010, p. 85).

Gilson in his book titled Creating *Value Through Corporate Restructuring -Case Studies in Bankruptcies*, Bayouts in 2010 under the financial restructuring means (Gilson, 2010, p. 3):

- Changes to the structure and relationships interaction between state debt, preferred and
- common shares;
- Changes in maturities of loans and / or debt instruments;
- Changes in the interest rate or the method of its calculation (fixed / variable);
- The use of exotic financial instruments;
- Changes of owners of securities.

If at the time notice the symptoms and causes of the crisis and take measures of financial restructuring scenario capabilities recovery options are much greater. Restructuring of debts implies, freezing settlement of liabilities, temporary stay of execution of liabilities, write-off of receivables, limiting or reducing the interest rate, the conversion of debt to equity, LBO (Leverage Buy Out). Debt to equity can be implemented in three ways, pure D / E (Debit to equity) swap (part of the old debt is written off and create a new capital structure adapted to existing assets), D / E conversion of the recapitalisation (combination of pure D / E conversion and investment of resources. New resources in the company can invest in the form of loans or share capital), conversion of the sale of the company (part of the asset is sold for cash, a portion of the debt is written off) (Gilson, 2010, p. 65).

LBO transactions are related to the increase in the level of indebtedness on the basis of new loans or issuing debt securities instruments. In addition to debt restructuring, the restructuring of the share capital means, recapitalisation, through changes in share capital. The capital increase can be realised by issuing a new series of shares through public offerings, private offering, an offer of rights or in combination. If the company was registered as d.oo or closed joint stock company, raises funds through an initial public offering of shares (IPO - Initial Public Offerings).

If the company is listed on the stock exchange and has publicly issued shares, then further raising of capital for financing the restructuring of the secondary capital market. Adequate modelling financing sources through financial restructuring and cost reduction, and strengthening financial control contributes to improving the financial situation. The dynamism of the social and business environment, especially in times of crisis all the more topical the area of financial restructuring. If the economic system is understood as a collection of companies, we can say that the restructuring of the company contributes to the health of the overall economy of a country. In this sense, financial restructuring is necessary to observe that part of the overall process of introducing changes, as well as complex business philosophy of making a series of business decisions and taking a large number of actions in order to attain the objectives of restructuring. Unsatisfactory business performance, as a rule initiate changes through which the company management is trying to stop or reverse the adverse trends and trends. Some restructuring activities imply more extensive structural changes to the configuration and ways of doing business. In the phase of decline in the company's activities in addition to the financial restructuring necessary to implement and / or combine other forms of restructuring, such as strategic restructuring and organisational restructuring (Damodaran, 2010, p. 8).

There are several approaches to division of potential funding sources. From the aspect of temporal dimensions, which have short-term maturity of one year and who have a long-term maturity longer than one year. The following classification refers to borrowed funds (loans, securities and other debt instruments.) And own resources (funds of the founders, funding partners, broadcast ordinary or preferred shares, etc.). There are also internal sources of financing (retained (retained earnings)) and external (taking loans, issuing bonds, issuance of new shares, issue of equity securities, etc.). Previously listed sources of funding may be used to finance the restructuring through mergers and acquisitions, and financing activities of some of the forms of introducing

product and process innovation in companies undergoing restructuring. In the decision-making process, any management activity, including the financial restructuring includes planning and restructuring program. Restructuring programs represent a detailed elaboration and congratulation of specific measures and actions to be taken in order to change the existing structure, strategy and position, which represents the basic pillars of the restructuring.

In the following paper we present trends sector, number of employees, the public, private and gender structures in companies undergoing restructuring in the EU (2009-2012.) (%).

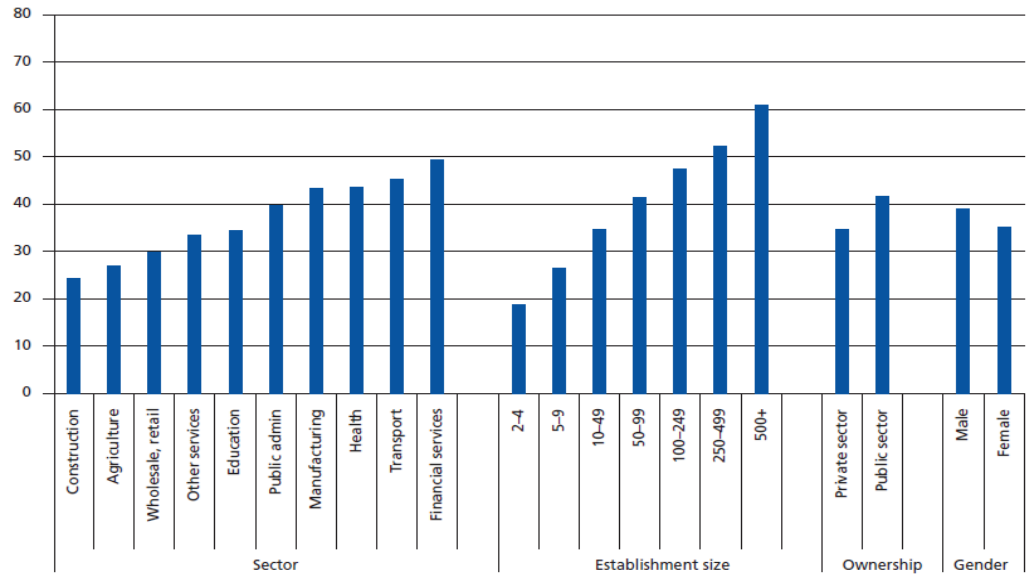


Figure 1. Trends sector, number of employees, the public, private and gender structures in companies undergoing restructuring in the EU (2009-2012.) (%)
(Source: ERM ANNUAL REPORT 2013, Monitoring and managing restructuring in the 21st century, стр. 59. (http://www.eurofound.europa.eu/emcc/erm/annualreport.htm)) (accessed 10.05.2015.)

The following graph presents the movement of companies included in the restructuring process in the EU (2009-2012.) (%).

Some of the possible measures for the recovery of companies are factoring - the sale of receivables prior to their maturity, more efficient use of internal resources - retained earnings, financing resources suppliers - extension of payment terms, customer financing assets - advance payments, reducing inventories of finished products through the sale, and maintaining inventories of raw materials to a minimum or signal level and others.

Research Roland Berger Strategy Consultants presented in 2012, was conducted on a set of 6000 the company showed a specificity of differences in terms of importance source of funding for the effects of restructuring of companies in the countries of Western Europe, Central and Eastern Europe and Serbia. In continuation of the work on the following chart, results of research on the adequacy of funding sources in the process of restructuring of companies in the countries of Western Europe, Central and Eastern Europe and Serbia.

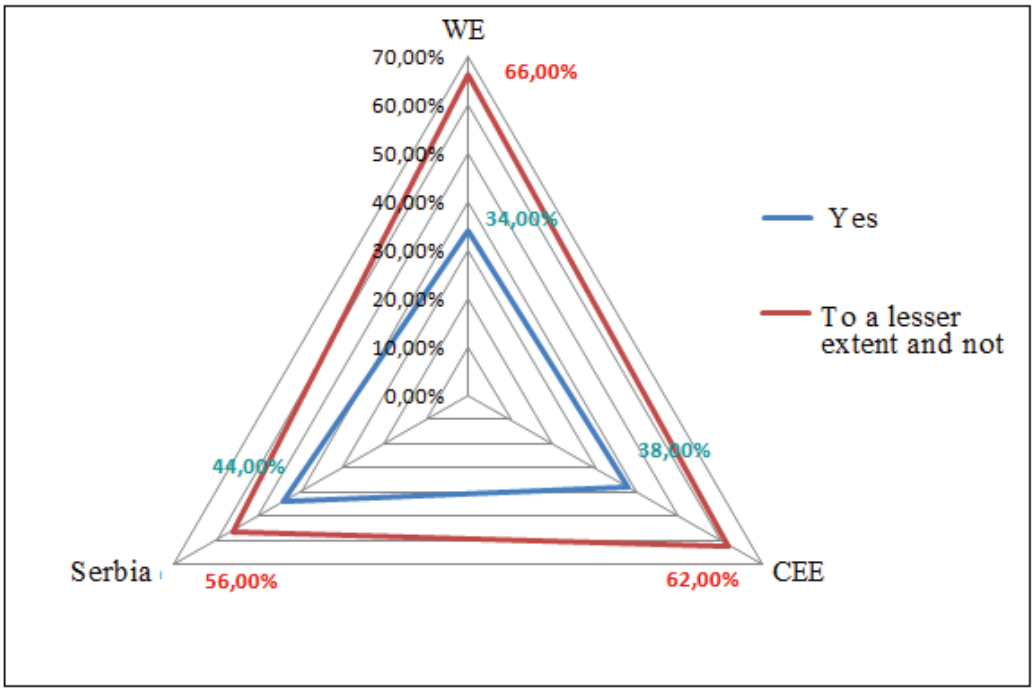


Figure 2. The adequacy of funding in the financial restructuring of firms in Western Europe, Central and Eastern Europe and Serbia

(Source: Restructuring as a prerequisite for competitiveness Belgrade, 2 February 2012th Study on restructuring and financing - Serbia 2012 (*www.sam.org.rs/download/files/cms/attach?id=333*), *Roland Berger Strategy Consultants,* (accessed 10.05.2015.))

Legend: (WE) - Western Europe, (CEE) - Central and Eastern Europe

As regards the comparison of the results of research positive response was for Serbia (44.00%), the countries of Central and Eastern Europe (38%) and Western Europe (34%). As regards the comparison of the results of research and do not answer to a lesser extent was for the countries of Central and Eastern Europe 62% Western Europe 66%, and Serbia 56% respectively. The following discusses the results of research on the importance of internal resources and bank loans as a source of financing in the financial restructuring of firms in Western Europe, Central and Eastern Europe and Serbia.

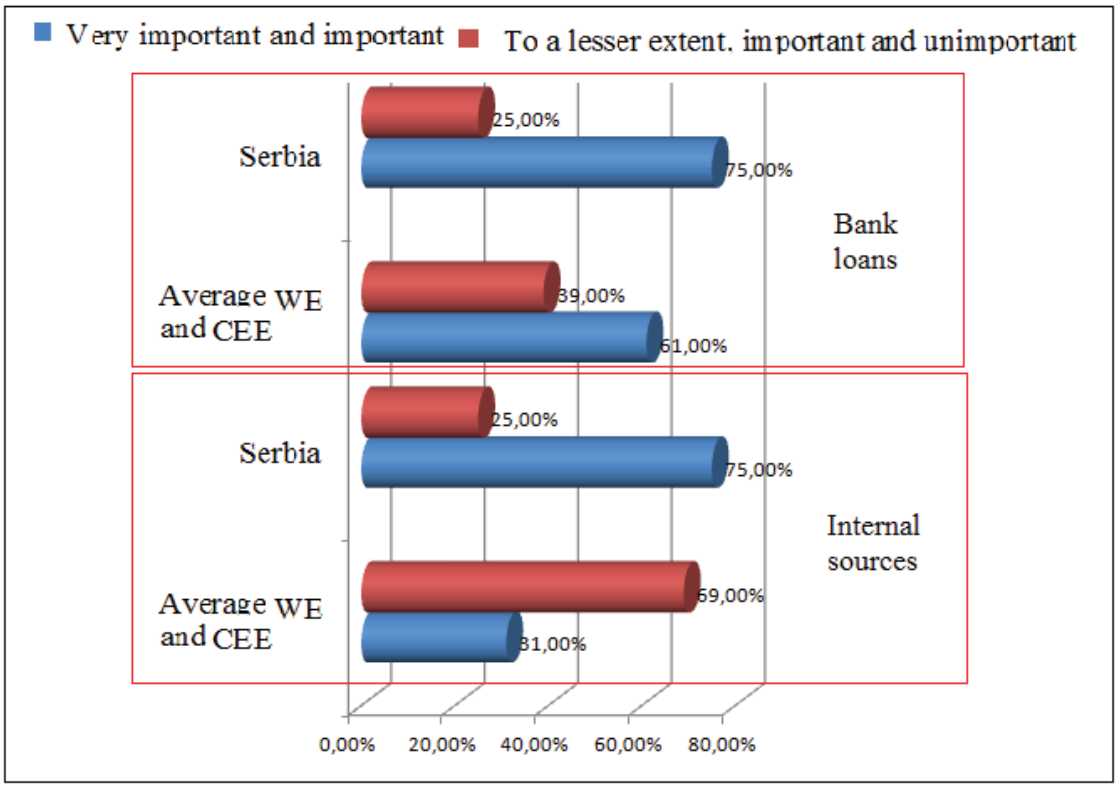


Figure 3. The importance of internal resources and bank loans as a source of financing to the process of financial restructuring of firms in Western Europe, Central and Eastern Europe and Serbia

(Source: Restructuring as a prerequisite for competitiveness Belgrade, 2 February 2012th Study on restructuring and financing - Serbia 2012 (*www.sam.org.rs/download/files/cms/attach?id=333*), *Roland Berger Strategy Consultants*, (accessed 10.05.2015.))

Legend: (WE) - Western Europe, (CEE) - Central and Eastern Europe

As regards the comparison of the importance of bank loans for the restructuring of the company, we can conclude that the average of the CEE countries and WE, generated with 31% very important and important and 69% in the less important and unimportant. At the same research question in Serbia are the responses of 75% very important and important, and 25% in the less important and unimportant.

As regards the comparison of the importance of internal sources of the restructuring of the company, we can conclude that the average of the CEE countries and WE generated with 61% very important and important and 39% in the less important and unimportant. At the same research question in Serbia are the responses of 75% very important and important, and 25% in the less important and unimportant.

2. Research Methodology and sampling

At the outset it must be noted how in the areas of the Republic of Serbia and Bosnia and Herzegovina and neigh boring countries are modest empirical research in the areas of restructuring enterprises, and also there is not a lot of scientific papers that dealt with this issue. Basic research work was realised in 2014 in the Republic of Srpska on a sample of 81 companies. On that basis, the collected data is a research base. In this regard, the analysis was based on a methodological concept of Roland Berger Strategy Consultants. The intention of the research was to draw attention to the level and trends in the analysis of the significance and content sources of financing in the

restructuring process in the function recovery company in the Republic of Serbia and Bosnia and Herzegovina and other countries in transition. The results are collected on the basis of a questionnaire, where they collected opinions of managers and owners of companies in the Republic of Srpska.

Looking at the legal form of organisation of the company, the structure of the research sample consisted of a limited liability company (doo) in the amount of 65,43% and joint stock companies (JSC) in the amount of 34,57%. The sample structure by activities, the largest share of 20,99% have trade activities. In addition, a significant share of 18,52% and 16,05% have wood and metal industry. Also, 16,05% of the research sample consisted of companies from other business categories. The survey was conducted by submitting a questionnaire-based electronic mail (e-mail), in person (in written form) and through telephone contact manager / owner of the company. Also, based on *Pearson Chi-Square test*, we tested the significance of the difference of the results obtained in the Republic of Srpska in relation to the results of research by *Roland Berger Strategy Consultants*.

3. Research results and discussion

The following discusses the results of research, which is presented in the following table view. In addition, we performed a statistical analysis software necessary parameters for hypothesis testing.

Table 1. Importance of sources of funding in the financial restructuring of companies in the Republic of Srpska

Answers		Number of answers	The frequency of responses in (%)
а)	Internal sources	28	34,57%
б)	Credits	45	55,56%
в)	The issue of shares	4	4,94%
г)	The bond issue	0	0,00%
д)	EU funds	0	0,00%
ђ)	Grants (subsidies and incentives)	4	4,94%
е)	Other	0	0,00%
	Total	81	100,00%

(Source: Calculation based on research by Authors)

According to the survey, 55,56% of the company date research Peer Group assessed that the loans were the major source of financing during their restructuring. As the second most important source of financing during the restructuring of enterprises cite internal sources of funding with a percentage of 34,57%.

Financing issuance of shares and on the basis of grant (incentives) of the company are equally assessed with the 4,94%. Other sources of financing enterprises in their restructuring process were not used.

Table 2. The adequacy of funding in the financial restructuring of companies in the Republic of Srpska

Answers	Managers / Owners	
	Number of answers	The frequency of responses in (%)
а) Yes	76	93,83%
б) To a lesser extent	5	6,17%
в) No	0	0,00%
Total	81	100,00%

(Source: Calculation based on research by Authors)

According to the survey, 93,83% of the company date research Peer Group affirmatively respond to a given research question. 6,17% of the company to a lesser extent considers that inadequate funding opportunities obstacle to the growth of enterprises through restructuring, while none of the companies date research Peer group did not negatively respond to a given research question. Since research has shown that the major source of bank loans to finance the restructuring of companies, in the sequel we give a detailed analysis of a given source of funding.

Table 3. Adequacy of bank loans as a source of financing in the financial restructuring of the company in the Republic of Srpska

Answers	Number of answers	The frequency of responses in (%)
а) Very important	32	39,51%
б) Important	46	56,79%
б) In less important	3	3,70%
в) Unimportant	0	0,00%
Total	81	100,00%

(Source: Calculation based on research by Authors)

According to the survey, 96,30% of the company date research Peer Group believes that a very important and significant effect on bank loans as a source of funding for the successful restructuring of the company. 3,70% of companies believe that their importance in the less important for the success of restructuring.

In the following paper we will conduct a comparison of the results of basic research with research by Roland Berger Strategy Consultants.

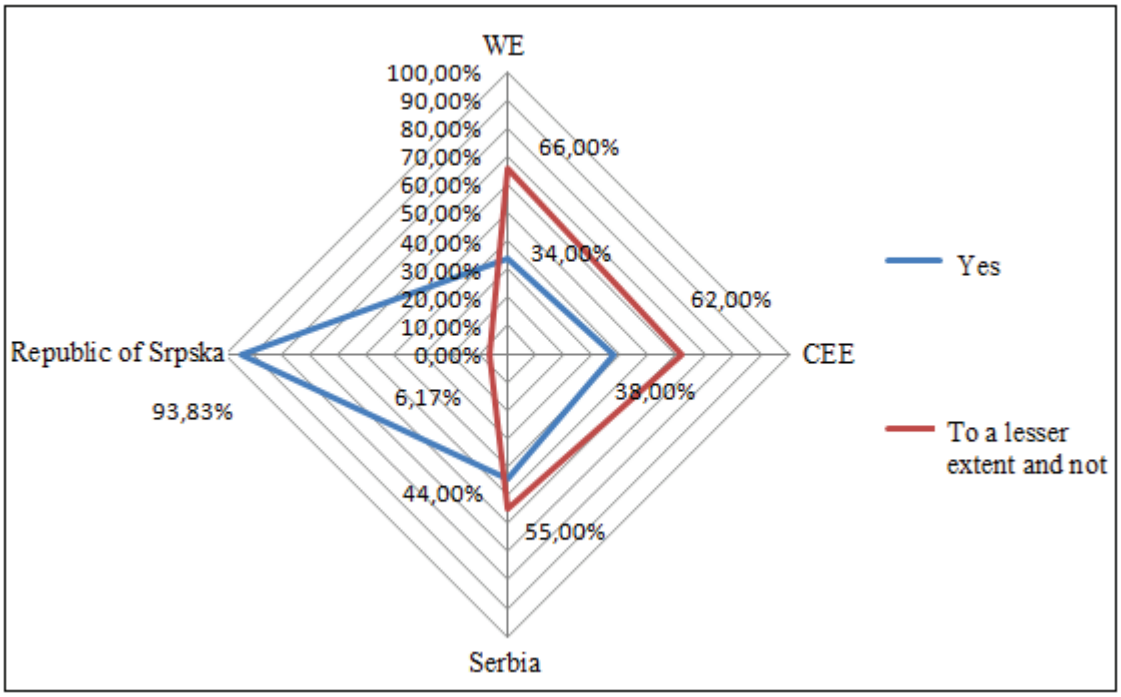


Figure 4. Comparative analysis of the adequacy of funding in the financial restructuring of firms in Western Europe, Central and Eastern Europe, Serbia and the Republic of Srpska

(Source: Authors *and Restructuring as a prerequisite for competitiveness Belgrade, 2 February 2012th Study on restructuring and financing - Serbia 2012* (*www.sam.org.rs/download/files/cms/attach?id=333*), *Roland Berger Strategy Consultants,* (accessed 20.05.2015.))

Legend: (WE) - Western Europe, (CEE) - Central and Eastern Europe

As regards the comparison of the results of research to answer the question "Do you think that inadequate funding opportunities barriers to the growth of enterprises through restructuring?" Positive response gave 93.83% of the Republic of Srpska companies that make research peer group. It's more for 49,83% in comparison to Serbia (44.00%), 55.83% in relation to the countries of Central and Eastern Europe (38%), 59.83% in relation to the countries of Western Europe (34%) . As regards the comparison of the results of research and do not answer to a lesser extent in the Republic of Srpska companies amounted 6,17%, which is statistically dominant difference with the countries of Central and Eastern Europe 62% Western Europe 66%, Serbia 55% respectively.

Since research has shown that the major source of bank loans to finance the restructuring of companies, in the sequel we give a detailed comparative analysis of the given sources of funding and testing the significance of differences based on *Pearson Chi-Square* test in Western Europe, Central and Eastern Europe, Serbia and the Republic of Srpska.

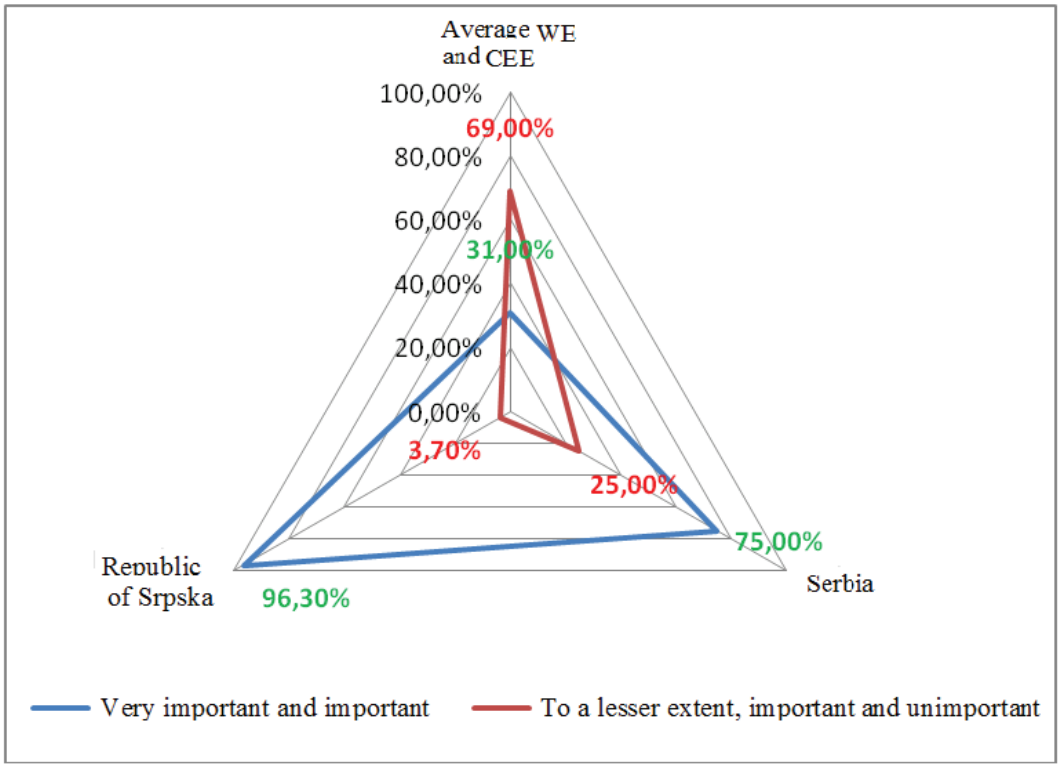


Figure 5. Comparative analysis of the adequacy of bank loans as a source of financing in the financial restructuring of firms in Western Europe, Central and Eastern Europe, Serbia and the Republic of Srpska

(Source: Authors *and Restructuring as a prerequisite for competitiveness Belgrade, 2 February 2012th Study on restructuring and financing - Serbia 2012* (*www.sam.org.rs/download/files/cms/attach?id=333*), *Roland Berger Strategy Consultants,* (accessed 20.05.2015.))

Legend: (WE) - Western Europe, (CEE) - Central and Eastern Europe

As regards the comparison of the results of research, we can conclude that the Republic of Srpska companies in the given research question whether the response is very important and significant to 96,30%, which was higher by 27,30% compared to the average of the countries of Western, Central and Eastern Europe, 21,30% more than in the companies in Serbia. Also, the answer to a lesser extent, important and unimportant to 3,70% refers to enterprises in the Republic of Srpska. 31,00% of answers relate to the average of the countries of Western, Central and Eastern Europe, and 25,00% of the answers of enterprises in Serbia. In following up on the basis of Pearson Chi-Square (chi-square test ($\chi 2$)) will conduct testing the significance of differences replies very important and important to a given research question by research category (average of WE and CEE, Serbia and the Republic of Srpska). With the reliability coefficient of (1-α) = 95%, ie. the risk of error α = 0,05 based statistical software we performed a given test. Testing will be made for the base value b = 100th In this connection the null and alternative hypotheses are as follows:

Ho: *π1=π2=π3*
H1: *At least two sets of basic proportions differ from each other.*

Statistical testing 1. Pearson Chi-Square (χ2) - testing the significance of differences

	Value
r	3
v	2
m	0
b	100
p value	67,433333
(1-α)	0,95
α	0,05
Pearson Chi-Square χ^2	32,890657
$\chi^{2\alpha,v}$	5,991

Source: Author's calculations analysis

Given that $\chi^{2\alpha,v} < \chi^2$, reject Ho: $\pi_1=\pi_2=\pi_3$ hypothesis and accept the alternative hypothesis H1: At least two basic sets of proportions differ from each other and conclude with a reliability coefficient of (1-α) = 95%, ie. the risk of error of α = 0.05 to respond Very important and important to a given research question by research category (average WE, CEE, Serbia and the Republic of Srpska) differ significantly.

In following up on the basis of Pearson Chi-Square (χ2) will conduct testing the significance of differences responses to a lesser extent, important and unimportant to a given research question by research category (average of WE and CEE, Serbia and the Republic of Srpska). With the reliability coefficient of (1-α) = 95%, ie. the risk of error α = 0.05 based statistical we performed a given test. Testing will be made for the base value b = 100th In this connection the null and alternative hypotheses are as follows:

Ho: *π1=π2=π3*
H1: *At least two sets of basic proportions differ from each other.*

Statistical testing 1. Pearson Chi-Square (χ2) - testing the significance of differences

	Value
r	3
v	2
m	0
b	100
p value	32,566667
(1-α)	0,95
α	0,05
Pearson Chi-Square χ^2	68,104197
$\chi^{2\alpha,v}$	5,991

Source: Author's calculations analysis

Given that $\chi^{2\alpha,v} < \chi^2$ reject Ho: $\pi_1=\pi_2=\pi_3$ hypothesis and accept the alternative hypothesis H1: At least two basic sets of proportions differ from each other and conclude with a reliability coefficient of (1-α) = 95%, ie. the risk of error of α = 0,05 to respond to a lesser extent, important and unimportant to a given research question by research category (average of WE and CEE, Serbia and the Republic of Srpska) differ significantly.

4. Conclusion

In modern business conditions in transition economies characterised by a high degree of business risk and a high degree of discontinuity of many of the factors and elements. In such circumstances, we have witnessed the entry of many companies in crisis, manifested drop-free performance and financial weakening of the financial results of operations. Directions enterprise restructuring in transition economies require special diagnostic status and situation of the company. This is due primarily radically different environment and the current situation in the companies of these countries. In such circumstances, it insists on a comprehensive and radical changes in its intensity greatly exceed the changes included in the operational approach to the problem of restructuring the company. Changes implemented through the restructuring process should include all of the pores and lead to structural changes in the method of operations and the internal configuration of the company. Given the problems faced by companies in the Republic of Srpska, it is necessary to optimise all key aspects of business. The idea of the survey was to rank the importance of the sources of financing of restructuring of companies in the Republic of Srpska. In this regard, a study was conducted has shown the most significant source of funding for the restructuring of bank loans 55.56% Research Peer Group. The research confirmed the main research hypothesis Ho: ,,Bank loans are the most important source of financing for enterprise restructuring in the Republic of Srpska. "A step forward in research related to testing the difference in the reply in relation to the countries of Western Europe, Central and Eastern Europe and Serbia.

Given that $\chi^2_{\alpha,v} < \chi^2$ reject Ho: $\pi_1=\pi_2=\pi_3$ hypothesis and accept the alternative hypothesis H1: At least two basic sets of proportions differ from each other and conclude with a reliability coefficient of (1-α) = 95%, ie. the risk of error of α = 0,05 to respond very important and important to a given research question by research category (average WE CEE, Serbia and the Republic of Srpska) differ significantly. Given that $\chi^2_{\alpha,v} < \chi^2$ reject Ho: $\pi_1=\pi_2=\pi_3$ hypothesis and accept the alternative hypothesis H1: At least two basic sets of proportions differ from each other and conclude with a reliability coefficient of (1-α) = 95%, ie. the risk of error of α = 0,05 to respond to a lesser extent, important and unimportant to a given research question by research category (average WE and CEE, Serbia and the Republic of Srpska) differ significantly.

Some of the possible measures for the recovery of companies are factoring - the sale of receivables prior to their maturity, more efficient use of internal resources - retained earnings, financing resources suppliers - extension of payment terms, customer financing assets - advance payments, reducing inventories of finished products through the sale, and maintaining inventories of raw materials to a minimum or signal level, taking new loans on the basis of pledges and mortgages - if there are resources that can be used for these purposes, suspension of further investment and the abandonment of certain activities, especially those that bear the losses, the sale of certain types of assets especially those that are not related to the core business, reduce wages, increase creativity and innovation in people in order to motivate to generate additional financial resources, emission of debt instruments - short-term (tracks) or long term (bonds) and others. Recommendations for improvement would go in the direction of a strategic approach to the restructuring of enterprises and the financial restructuring included in the concept of strategic restructuring.

References

1. Bernile, G., and Gregg A. J. (2009). The Impact of the Options Backdating Scandal on Shareholders, Journal of Accounting and Economics, 47, 1-2: 2-26.
2. Buble,M., Kulović, DŽ., Kuzman, S. (2010). Due diligence i procjena vrijednosti poduzeća, Sarajevo: Kemigrafika
3. Walker, L., W. (2010). Strategic Restructuring: A Critical Requirement in the Search for Corporate Pontential. In: Rock, M.L. and Rock, R. H. (eds). Corporate Restructuring, New York: McGraw-Hill
4. Weston, J.F., Mitchel, M.L., Mulherin, J.H. (2003). Takeovers, Restructuring and Corporate Governance, 4 edition. Englwood Cliffs: Prentice Hill
5. Grosfeld, I. and Roland, G. (1997). Defensive and Strategic Restructuring in Central European Enterprises, Journal of Transforming Economies and Societies, (3), 21-46.
6. Gilson, S.C. (2010). Creating Value through Corporate Restructuring –Case Studies in Bankruptcies, Bayouts and Breakups, New Jersey: John Wiley and Sons, Hoboken
7. Damodaran, A. (2010). The dark side of valuation-Valuing Young, Distressed, and Complex Businesses, 2nd edition, Upper Saddle River: Pearson Education - FT Press
8. Djankov, S. and Murrell, P. (2002). "Enterprise Restructuring in Transition: Quantitative Survey,Second Draft". *Journal of Economic Literature* (2), 211-234.
9. EBRD - European Bank for Reconstruction and Development) (*Transition Report* 2003-2014)(http://www.ebrd.com/downloads/research/transition/TR03-14.pdf(accessed 20.05.2015.))
10. European Commission, ERM ANNUAL REPORT 2013 Monitoring and managing restructuring in the 21st century, Brisel, 2013., стр. 25.
11. Kotter, P.,J. (1995). Leading Change: Why Transformation Efforts Fail, Harvard Business Review,
12. Roland Berger Strategy Consultants, *Entrepreneurial restructuring*, Crafting tailor-made business models for sustainable success, 2014.
13. Todorović, M. (2010). Poslovno i finansijsko restrukturiranje preduzeća, Beograd: CID Ekonomski fakultet
14. Lazonick, W. (2004), Corporate Restructuring, in Stephen Ackroyd, Rose Batt, Paul Thompson, and Pamela Tolbert, eds., The Oxford Handbook of Work and Organization, Oxford University Press: 577-601.

Available at: URL: http://www.ebrd.com/home (accessed 20.05.2015.)

PART FOUR:
ENTREPRENEURSHIP IN THE LAST 25 TEARS

CHARACTERISTICS OF ENTREPRENEURSHIP IN BOSNIA AND HERZEGOVINA DURING THE TRANSITION PERIOD

Professor Bahrija Umihanić, PhD[151]

Professor Sabina Đonlagić Alibegović, PhD[152]

Mirela Omerović, MA[153]

Abstract

From the early 1990-ies Bosnia and Herzegovina has been in transition from a planned economy to a market economy. The transition period has been even more difficult due to the consequences to the Bosnian economy that were caused by crisis. In the transition period many socio-economic reforms have been initiated towards a market economy. Entrepreneurial activity is believed to be a driving force in transitioning towards an open market economy. Results of previous researches indicate that establishment of businesses and their growth are crucial during the transition process due to the reallocation of resources in favour of enterprises as main actors. Bosnia and Herzegovina, just like all other transition economies, has experienced crucial social, political and economic changes during the past two decades. However, these changes and reforms happened under unfavourable conditions due to a poor legal, institutional and political structure, which should have provided basis for entrepreneurship development in the country. Economic policy in Bosnia and Herzegovina during this transition period strongly emphasized entrepreneurship and SMEs development as a key driver for economic growth and employment. The main aim of the paper is to examine the level of entrepreneurship development and identify characteristics of entrepreneurship in Bosnia and Herzegovina during transition period. In the paper we will present different aspects of entrepreneurship in this transition economy and evaluate entrepreneurship development during the transition period after the financial crisis in 2008. Entrepreneurship in transition countries, as is Bosnia and Herzegovina, is influenced by numerous factors which can we classified in three groups: environmental factors (government, regulatory framework, infrastructure, institutional environment etc.), cultural factors (national culture, social norms and values) and individual factors (knowledge and skills). In this paper we will focus on indicators of these three groups of factors. We will present empirical evidence based on primary research which was conducted within the Global Entrepreneurship Monitor (GEM) research from 2008 till today. Furthermore, the same groups of indicators from other research studies from this period will be used in order to investigate characteristics of entrepreneurship in Bosnia and Herzegovina.

***Key words**: entrepreneurship, transition economy, Bosnia and Herzegovina*

[151] Full professor, University in Tuzla, Faculty of Economics, Univerzitetska 8, 75000 Tuzla, Bosnia and Herzegovina, bahrija.umihanic@untz.ba
[152] Assistant professor, University in Tuzla, Faculty of Economics, Univerzitetska 8, 75000 Tuzla, Bosnia and Herzegovina, sabina.djonlagic@untz.ba
[153] Teaching assistant, University in Tuzla, Faculty of Economics, Univerzitetska 8, 75000 Tuzla, Bosnia and Herzegovina, mirela.omerovic11@gmail.com

Introduction

Entrepreneurship has been identified as a basis for economic development by neo-liberalists such as Drucker, Samuelson and others, after special circumstances during 1970-ies in Western countries. This period was characterized by deep recession and transformations, and weaker influence of governments on economic activity, and strengthening of private incentive was the consequence. Political changes in former communist countries in Eastern Europe and the Balkans resulted in the need of an economic transition to market economy. All planned economies have been dominated by large firms, SMEs were almost non-existent and governments made it hard for entrepreneurs to operate (McMillan and Woodruff, 2002). The transition process in former Yugoslavia began in late 1980-ies and included fundamental socio-economic changes and reforms. However, when we speak about Bosnia and Herzegovina the process of transformation from a self-managed economy to market economy began in 1996 (Stojanov, 2012).

Many authors argued on the role of entrepreneurship in socio-economic transformation of countries. Entrepreneurial activity is the driving force in socio-economic transformation of former communist countries (Mueller and Goić, 2002). Significant role is played by entrepreneurship in establishing a market economy (Estrin and Mickiewicz, 2010). Entrepreneurship is important in order to compensate for the contraction in employment of overmanned state firms (Chilosi, 2001). Furthermore, developing entrepreneurship and increasing its quality enhances the capability of transition economies to create and maintain jobs. The transition process had implications on expansion of entrepreneurial activities in transition countries and small and medium-sized enterprises were an important aspect of this process (Grilo and Thurik, 2006).

The main goal in this paper is to investigate whether entrepreneurship in Bosnia and Herzegovina, from the standing point of factors that make influence on its state and development, has been the driving force for economic development during the transition process. We defined our research hypotheses: *the transition period in Bosnia and Herzegovina is characterised by a low pace of entrepreneurship development due to unfavourable influence of environmental, cultural and individual factors.*

Factors influencing entrepreneurship in transition economies

Various authors and researchers identified different factors influencing entrepreneurship development in transition countries in different regions in the world. Van der Zwan, Verheuol and Thurik (2011) compared entrepreneurial progress in over 30 transition and non-transition economies. This research was focused on environmental barriers on economies in different stages of the transition process. It was concluded that administrative barriers and lack of start-up information have a significant negative effect on entrepreneurial activity in European transition economies.

Estrin and Mickiewicz (2010) pointed out institutional importance, socio-cultural aspects and property right enforcement as important factors for entrepreneurship in transition economies. Furthermore, a research by Chilosi (2002) identified that environmental factors (financing, normative and administrative obstacles, societal values and attitudes, development of market institutions) are crucial for entrepreneurship development in transition economies. Environmental factors have been identified as fundamental in many other studies as well. Aidis (2002) concluded that transition economies are characterized by high level of unproductive entrepreneurial activity and that factors influencing the entrepreneurial activity can be divided into three groups: environment, role of state and individual characteristics of business owners.

A study by Karayel and Cifti (2008) showed that apart from environmental factors, historical, geographical and cultural factors influence performances during transition period. They concluded that an active role of public sector in economy, bureaucratic barriers, low support to entrepreneurship, poverty and widespread bribery, hinder progress of entrepreneurship during transition process. The impact of cultural factors has also been proven in a study by Nieuwenhuis (2012) in transition period in Macedonia.

Some of these factors have been identified in an earlier study by Gartner (1985) who concluded that the age of entrepreneurs, political environment and investor encouragement have been key factors influencing entrepreneurship in transition period in Hungary. Individual characteristics of entrepreneurs, entrepreneurial intent, level of education and macroeconomic environment have been identified as determinants of entrepreneurial behaviour in a changing social environment focusing on entrepreneurial intent by Bräuninger and Dragons (2006).

According to Ireland et al. (2008) entrepreneurs in transition countries operate in a complex and turbulent environment which is characterized by political as well as economic changes. Entrepreneurship in transition countries is influenced by a number of factors, e.g. environmental, cultural and individual factors.

Methodology of the research

The paper is focused on empirical study based on primary research data from the Global Entrepreneurship Monitor – GEM research in B&H (in which authors participated) and secondary data from other relevant studies related to the subject of the paper and hypotheses testing. The GEM research is the largest and one of the most important studies on entrepreneurship in the world. Its methodology is based on survey research on a representative sample of adult population, survey research and interviews with entrepreneurship experts and secondary data from standardized international databases. For an in-depth analysis and comparison, authors used secondary data from relevant international reports on entrepreneurship and SMEs, for B&H, during the transition period (focusing on the period after the financial crisis).

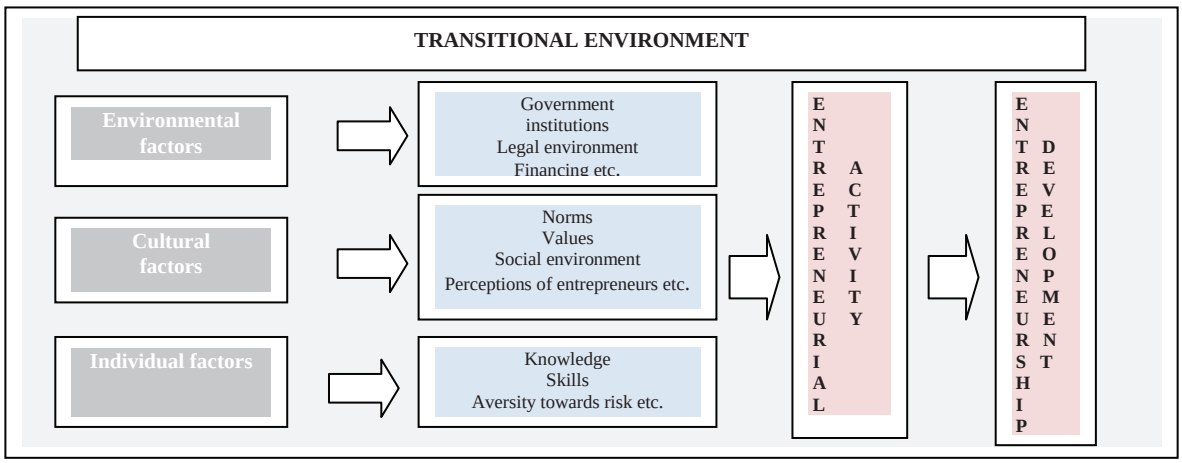


Figure 1. Conceptual framework of the research

We identified three groups of factors: environmental (government, regulatory framework, infrastructure, institutional environment etc.), cultural factors (national culture, social norms and values) and individual factors (knowledge and skills), for analysis of characteristics of entrepreneurship in B&H during the transition period. We developed a conceptual framework of the research based on literature review and the proposed model for entrepreneurship development in transition economies developed by Aidis (2002). Our adapted conceptual framework relates to the way our ideas were organized in order to achieve the purpose of the research. The conceptual framework is presented in the Figure 1.

Results of data analysis for three groups of factors

Environmental factors

Entrepreneurship is influenced by general environment which is characterised by interaction of economic development and institutions (Wennekers and Thurik, 1999). Institutions are critical determinants of entrepreneurial behaviour, economic activity in general. General administrative and legal framework which creates preconditions for entrepreneurship and SMEs is important during transition period. The quality of the environment influences the level of entrepreneurial activity and business development.

Due to the lack of universal definition of business environment, authors of the paper argue that it includes all institutions which are relevant for creation of a more simple, transparent and a stimulating environment which quality is measured based on how these institutions stimulate entrepreneurship and SMEs sector.

Empirical evidence for the quality of regulatory environment for entrepreneurship development in Bosnia and Herzegovina during the past years of transition can be found in *Doing Business* reports published by The World Bank (Table 1).

Table 6. Overview of DTF score for Bosnia and Herzegovina in the period 2004-2015 for business regulatory environment[154]

	Year	DB rank	Overall DTF	Starting a business	Dealing with construction permits	Getting electricity	Registering property	Getting credit	Protecting minority investors	Paying taxes	Trading across borders	Enforcing contracts	Resolving insolvency
Bosnia and Herzegovina	DB2004	/	0,00	56,70	0,00	0,00	0,00	0,00	0,00	0,00	0,00	46,03	35,22
	DB2005	/	0,00	58,40	0,00	0,00	36,58	50,00	0,00	0,00	0,00	57,35	35,22
	DB2006	/	0,00	59,52	22,67	0,00	38,81	62,50	46,67	46,73	66,94	57,35	35,05
	DB2007	/	0,00	60,32	22,67	0,00	38,83	62,50	46,67	46,76	67,33	58,39	36,89
	DB2008	/	0,00	61,67	28,30	0,00	38,83	62,50	46,67	46,73	67,74	58,39	38,21
	DB2009	/	0,00	60,49	27,59	0,00	51,46	62,50	46,67	43,64	69,42	58,39	38,66
	DB2010	/	52,95	62,78	31,53	48,72	58,73	62,50	46,67	51,89	69,60	58,39	38,66
	DB2011	/	54,14	63,76	31,53	54,59	66,70	62,50	46,67	51,89	68,81	57,64	37,35
	DB2012	/	55,57	69,94	38,64	54,67	66,72	62,50	46,67	51,89	69,35	57,64	37,64
	DB2013	/	56,08	72,44	38,64	54,68	67,98	56,25	46,67	58,78	69,55	57,64	38,16
	DB2014	104	60,24	72,45	38,64	54,69	67,98	60,00	54,17	61,00	69,60	57,64	66,27
	DB2015	107	60,55	72,51	39,10	54,72	68,12	65,00	54,17	58,22	69,76	57,64	66,21

Indicators from the Doing business reports, for the past decade, indicate an unfavourable business environment in Bosnia and Herzegovina. Due to a changed methodology overall ranks are only available for the past two years, and indicate a fall of the country in the overall rank from 104 to 107. Also, the Distance to Frontier (DTF) data, available for Bosnia and Herzegovina since 2010, indicate the existence of a gap between the indicators of this country and the best practice. Overall DTF scores for Bosnia and Herzegovina reveal that there is a constant minimal improvement during the past decade of transition. If the indicators are analyzed in periods prior and after the financial crisis there is no significant progress in the past five years, after the crisis. The influence of the financial crisis on the business environment in Bosnia and Herzegovina is evident based on indicators related to cross-border trade, contract enforcement and resolving insolvency.

[154] The World Bank Group, Doing Business-measuring business regulations, www.doingbusiness.org

According to the GEM methodology, entrepreneurial activity is influenced by a variety of factors of the environment called Entrepreneurial framework conditions, consisted of nine areas. Bosnia and Herzegovina has been participating in the GEM project since 2008, influencing the availability of data only from that period. The average scores for these variables provide empirical evidence for the conditions of the quality of the entrepreneurial environment in the country. Scores over 3 (based on a 5-point Likert's scale) indicate a stimulating component for entrepreneurship, while average scores under 3, indicate opposite, that is, negative influence of the component for entrepreneurship development. These scores for Bosnia and Herzegovina in the period 2008-2014 are presented in Table 2.

Table 7. Entrepreneurial framework conditions in Bosnia and Herzegovina in the period 2008-2014[155]

No.	GEM ENTREPRENEURIAL FRAMEWORK CONDITIONS	2008	2009	2010	2011	2012	2013	2014
1.	Entrepreneurial Finance	2,20	2,03	2,27	2,30	2,32	2,20	2,29
2.	Government Policy – relevance of entrepreneurship	1,98	1,81	1,88	2,00	2,10	2,00	2,13
	Government Policy- taxes and regulations for SMEs	1,69	1,70	1,81	1,81	1,73	1,80	1,74
3.	Government Entrepreneurship Programs	1,86	1,90	2,01	2,20	2,13	2,00	2,07
4.	Entrepreneurship Education-primary and secondary education	1,97	2,00	2,04	2,10	2,34	2,00	2,06
	Entrepreneurship Education-post-secondary education	2,36	2,36	2,56	2,40	2,75	2,60	2,43
5.	R&D transfer	1,81	1,77	2,09	2,00	1,97	1,90	1,96
6.	Commercial and Legal Infrastructure	2,68	2,68	2,82	2,90	2,84	2,70	2,92
7	Entry regulation-market dynamics	3,26	3,36	3,57	3,20	3,22	3,40	3,35
	Entry regulation- market openness	2,05	1,92	2,03	2,00	2,08	2,00	2,16
8.	Physical Infrastructure	3,12	3,05	3,27	3,40	3,25	3,30	3,35
9.	Cultural and Social Norms	2,19	2,31	2,27	2,20	2,12	2,20	2,15

The scores for Bosnia and Herzegovina during a period of the last 7 years of transition indicate that the environment for entrepreneurship development is not stimulating in the country. Almost all scores have an average value under 3. The highest scores are in the area of market dynamics and physical infrastructure. Government policies related to entrepreneurship and SMEs scored average values under 2, which is very low for a country which economic development during transition should be based on development of entrepreneurship and SMEs. These indicators are the lowest in the past 7 years. On the other hand, the best scores Bosnia and Herzegovina achieved for components related to market dynamics and physical infrastructure (average scores over 3). However, in 2009, under the influence of the financial crisis, in relation to 2008, the indicators for entrepreneurial financing dropped from 2,20 to 2,03, government policies from 1,98 to 1,81, R&D transfer from 1,81 to 1,77 and physical infrastructure indicator which slightly declined from 3,12 to 3,05.

One of the most relevant studies on business environment is the Global Competitiveness Index (GCI) by The World Economic Forum. The methodology is based on 12 main pillars of competitiveness which are measured by three sub-indexes (basic requirements sub-index, efficiency enhancers sub-index and innovation and sophistication sub-index) which form the overall competitiveness index.

[155] *Global Entrepreneurship Monitor, National reports for Bosnia and Herzegovina, www.gemconsortium.org*

Table 8. Global Competitiveness Index for Bosnia and Herzegovina in the period 2006-2014[156]

Bosnia and Herzegovina	GCI rank	Sub-indexes														Total number of countries
		Basic requirements sub-index					Efficiency enhancers sub-index							Innovation and sophistication sub-index			
		Rank	Institutions	Infrastructure	Macroeconomic environment	Health and primary education	Rank	Higher education and training	Goods market efficiency	Labour market efficiency	Financial market development	Technological readiness	Market size	Rank	Business sophistication	Innovation	
2006 2007	89	78	106	96	45	38	93	86	93	/	/	108	/	99	92	104	125
2007 2008	106	104	113	117	90	87	95	98	113	77	71	110	80	123	119	121	131
2008 2009	107	98	123	123	57	82	102	109	123	85	86	109	92	129	125	128	134
2009 2010	109	100	128	128	69	75	100	86	125	94	104	95	90	127	117	131	133
2010 2011	102	98	126	98	81	89	100	88	127	94	113	85	93	120	115	120	139
2011 2012	100	92	109	99	78	58	102	86	115	85	124	73	97	108	108	104	142
2012 2013	88	81	85	94	97	48	97	72	109	99	119	68	93	99	109	80	142
2013 2014	87	81	71	83	104	46	89	63	104	88	113	73	98	89	110	63	148

The GCI rank for Bosnia and Herzegovina has fluctuated during the past decade. Results indicate short term improvements followed by a fall in the overall rank. The highest rank based on the three sub-indexes was in 2014, whilst the worst ranking is in the period of financial crisis in 2009. The data indicates a sharp fall in 2008, with improvements have been slow but constant until 2014. The basic requirements sub-index, which is mostly related to general environmental conditions for entrepreneurship, indicate no improvement in institutional, regulatory and macroeconomic environment in the past years in Bosnia and Herzegovina.

Cultural factors

Specific beliefs and attitudes, values and norms influence the entrepreneurial behaviour of population. Attitudes and perceptions of entrepreneurship can influence individual's decision of becoming entrepreneur. Based on the GEM methodology, three measures are used to measure social attitudes regarding entrepreneurship and indicate the attractiveness of entrepreneurship to individuals in the country, which scores for Bosnia and Herzegovina in the period 2008-2014 are presented in Figure 2.

[156] *The World Economic Forum, Global Competitiveness Index, www.weforum.org*

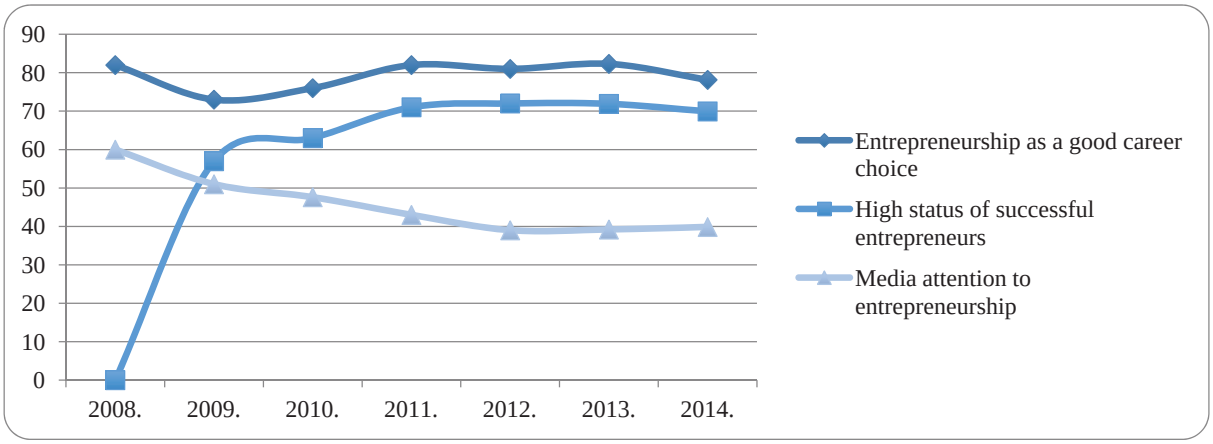


Figure 2. Entrepreneurial attitudes – impressions on entrepreneurship in Bosnia and Herzegovina in period 2008-2014[157]

Indicator for entrepreneurship as a good career choice has been on a high level in the country since 2008. Its value slightly fell in 2009 and again in 2014. Results of the GEM research also point towards a high level of agreement among respondents about high status of successful entrepreneurs. This indicator experienced the highest increase from 2008 to 2009. Since then, it has been improving and started to decrease in 2013. Media attention that is given to entrepreneurship in Bosnia and Herzegovina reflects cultural environment as well. The space given to promotion of entrepreneurship and SMEs in the media is important to promote entrepreneurship as a career path and way towards achieving economic development. An indicator for media attention has been decreasing from 2008 until 2012, since when this indicator is stagnating. Evidently, the media in Bosnia and Herzegovina has devoted very little space to entrepreneurship promotion which raises the awareness of population on importance of entrepreneurship for economic development and influences the social role of entrepreneurs.

Individual factors

Perceptions on individual knowledge and skills influence supply and demand of entrepreneurship. Level of education and availability of entrepreneurship education programs are determinants of perceived capabilities of the population. Individuals need to be aware of opportunities for starting a business, but the fear of failure can prevent them from using that opportunity.

Beside environmental and cultural factors, individual factors play an important role in entrepreneurship. GEM research methodology includes an extensive socio-economic approach focusing on the individual as a personification of entrepreneurship. Figure 3 contains the GEM results on selected individual factors influencing entrepreneurship in Bosnia and Herzegovina in the period 2008 - 2014.

[157] *Global Entrepreneurship Monitor, National reports for Bosnia and Herzegovina, www.gemconsortium.org*

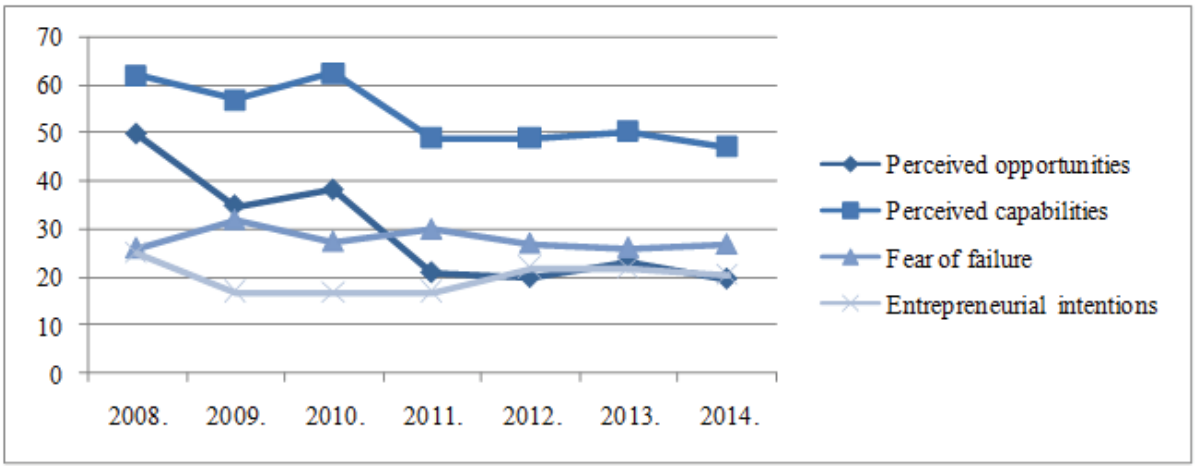


Figure 3. Selected GEM individual factors reflecting state of entrepreneurship in Bosnia and Herzegovina in the period 2008-2014[158]

According to the presented results it is obvious that there is a decline in value of indicators for perceived opportunities from the highest achieved value of 50 in 2008 to 19,69 in 2014. Indicator for entrepreneurial intentions is related to this indicator. Its highest value was in 2008 (25) and since then it has been declining until 2012, when this indicator slightly increased compared to prior years on a value of 22, but still not on the level from 2008. In order to start a business, entrepreneurs must have certain knowledge and skills. GEM measures entrepreneurial capabilities of individuals involved in the research. As the Figure 3 shows, this indicator has alternately been declining and improving from 2008, when its value was 62, until 2014 when it reached a value of 47. It is interesting that this indicator has highest values compared to other indicators presented, indicating that perception of entrepreneurial capabilities are much higher compared to detection of entrepreneurial opportunities or to start a business. The fear of failure indicator has been approximately at the same level in Bosnia and Herzegovina during the period 2009 - 2014. From 2008 to 2009 this indicator has increased significantly indicating that financial crisis resulted in a higher level of uncertainty for potential entrepreneurs.

Level of entrepreneurial activity in Bosnia and Herzegovina

For purpose of presenting the dynamics of entrepreneurial activity in Bosnia and Herzegovina during the transition period, and focusing on the period after the financial crisis, the GEM indicators of entrepreneurial activity in Bosnia and Herzegovina in the period 2008-2014 are presented in this chapter.

[158] *Global Entrepreneurship Monitor, National reports for Bosnia and Herzegovina, www.gemconsortium.org*

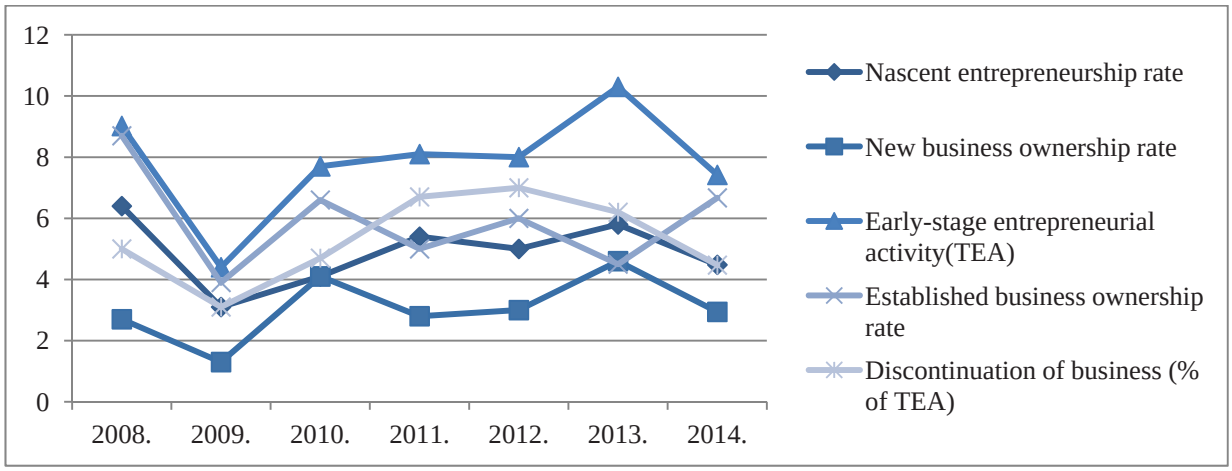


Figure 4. GEM indicators of entrepreneurial activity in Bosnia and Herzegovina in the period 2008- 2014[159]

GEM research data is relevant for estimation of state of entrepreneurship in different stages. The GEM defines that entrepreneurial process starts with potential entrepreneurs which identify business opportunities and have no fear of failure. Intent to start a business can be enhanced by positive perception of entrepreneurs by the society, their social role and status, as well as the positive media attention. The next phase is nascent entrepreneurial activity which relates to businesses existing less than three months. The second phase is the new business phase which refers to business which exists between three and 42 months. Indicators for these first two phases make the indicator of Total Early Stage Entrepreneurial Activity-TEA. According to GEM, established businesses exist longer than 42 months. According to this methodology it is important to take into consideration entrepreneurs which discontinued the business.

As the Figure 4 shows, there has been a decrease in entrepreneurial activity in Bosnia and Herzegovina from 2008 to 2014 during the transition period, additionally influenced by the financial crisis. Indicators for new businesses have dramatically dropped from 2008 to 2009 (from 2,70 to 1,30). After six years, the value of this indicator is slightly higher than in 2008 (2,94). TEA has also significantly declined in 2009 to value of 4,40 in relation to 9,02 in 2008. Established businesses indicator also dropped from 8,70 in 2008 to 3,90 in 2009. During the past years, the value for this indicator has dropped to a lower value than in 2008. Its value in 2014 was 6,67. Entrepreneurship is thought to be one of the mechanisms that helps turn around recessions by reallocating resources in such a way that promising new activities replace obsolete economic activities (Bosma et al., 2009). This can be the reason why the discontinuation of business rate in Bosnia and Herzegovina declined in 2009 in relation to 2008. Unfortunately, this indicator started to grow after the 2009 until 2012.

Conclusion

Research approach was based on analysis of indicators for three groups of factors influencing entrepreneurship in B&H during the transition period, especially from period of financial crisis in 2008. Based on the results of the analysis the following conclusions can be derived. The presented results for environmental factors according to Doing Business data indicate an unfavourable environment for business activity in the country. The general business environment has not improved from 2004 until 2015. The GEM indicators also lead us to conclude that entrepreneurial environment has not significantly improved since 2008. The same show the GCI results with some improvements in sub-indexes. So, all the relevant world's reports and researches indicate that

[159] *Global Entrepreneurship Monitor, National reports for Bosnia and Herzegovina, www.gemconsortium.org*

entrepreneurial environment in Bosnia and Herzegovina, as crucial basis for further development of entrepreneurship, has not improved in the last decade, especially influencing the dynamics and quality of entrepreneurial activity.

Cultural factors which influence the individuals' behaviour in regards to entrepreneurship, their attitudes, risk aversion etc. are also important for entrepreneurship development -especially in transition economies where there is a social transition along with an economic one. Based on GEM indicators evident are the positive attitudes towards entrepreneurship as career choice and high status of successful entrepreneurs, but the media attention to entrepreneurship is insufficient. Even though there is a certain level of positive perception of entrepreneurship in the Bosnian society the indicators for perceived opportunities and capabilities of individuals are dropping, resulting in a relatively low level of entrepreneurial intentions, as well as relatively high fear of failure, as individual factor influencing the state of entrepreneurship in the country.

Overall entrepreneurial activity in Bosnia and Herzegovina during the period 2008-2014 experienced different dynamics, that is rise and fall of specific indicators of its phases, ending with a fall in the last two years, which can be related to poorly developed entrepreneurial environment, out of which quality depends the decision of potential as well as of existing entrepreneur to enter, that is to expand its entrepreneurial activity.

This research results lead us to conclusion that B&H, as a transition economy, has had low level of entrepreneurship during the transition period, especially from the beginning of the financial crisis in 2008. Accordingly, it can be concluded that entrepreneurship did not enhance the transition towards a market economy due to a low level of entrepreneurship development, and mostly because of the non-supportive entrepreneurial environment. Based on all of the presented empirical evidence we conclude that the research hypothesis is confirmed. We conclude that the transition period in Bosnia and Herzegovina is characterised by a low pace of entrepreneurship development due to unfavourable influence of environmental, cultural and individual factors, which is confirmed by research. B&H is at the frontier of the challenge to start developing basic conditions for further entrepreneurship development in function of overall economic development. In general, the quality of administrative procedures and institutions, legal framework, promoting entrepreneurship among young generations, developing entrepreneurial infrastructure and other measures should be implemented in order to improve environment for entrepreneurship development and motivate individuals for starting their own businesses.

References

1. Aidis, R. (2002). *Entrepreneurship and Economic Transition*, Faculty of Economics and Econometrics, University of Amsterdam, Tinbergen Institute, Amsterdam
2. Audretsch, D.B. (1995). *Innovation and Industry Evolution,* MIT Press, Cambridge, MA
3. Bosma, N. et. al. (2009). Global Entrepreneurship Monitor - Executive Report 2008, Babson College, London Business School and Global Entrepreneurship Research Consortium
4. Chilosi, A. (2001). Entrepreneurship and Transition, *Private Sector Development, MOCT-MOST*, 11, Kluwer Academic Publishers, Netherlands, pp.327-357
5. Doing Business 2015 Going Beyond Efficiency Economy Profile 2015 Bosnia and Herzegovina (2014). IBRD / The World Bank
6. Doing Business in Bosnia and Herzegovina, http://www.doingbusiness.org/data/exploreeconomies/bosnia-and-herzegovina, (accessed 22.06.2015.)

7. Dragos, C. et al., (2009). Public and Financial Instituions in Transition Economies:An overview and Recent Evidences from Central and Eastern Europe, *Managing global transitions*, vol.7, issue 2, pp.147-170
8. Edgeworth, F. (1925). *Paper relating to Political Economy,* London, MC Millan and Co .Ltd.
9. Estrin, S., Meyer, K.E., Bytchkova, M. (2005). *Entrepreneurship in Transition Economies,* in Casson M.C. et al. (ed), The Oxford Handbook of Entrepreneurship, Oxford University Press
10. Estrin, S., Mickiewicz, T. (2010). *Entrepreneurship in Transition Economies: The Role of Institutions and Generational Change,* Forschungsinstitut zur Zukunft der Arbeit, Bonn
11. Grilo, I., Thurik, A.R., (2008). Determinants of entrepreneurial engagement levels in Europe and the US, *Industrial Corporate Change,* 17(6), pp.1113-1145
12. Karayel, M., Cifti, M. (2008). Entrepreneurship in Transition Economies: A Literature Review of The Central and Eastern European Countries (CEECs), First International Conference on Management and Economics:Current Issues in Emerging Economies in Global Perspective, Tirana
13. Lyles, M.A., Baird, L.S., Burdeane Orris, J. (1995). Entrepreneurship in a Transition Economy:An Examination of Venture Creation in Hungary, *Journal of Enterprising Culture,* March 1995, Vol.3, No.1, pp.59-83
14. McIntyre, R. (2001). *The Role of Small and Medium Enterprises in Transition:Growth and Enterpreneurship,* UNU World Institute for Development Economies Research, Helsinki, Finland
15. McMillan, J., Woodruff, C. (2002). The Central Role of Entrepreneurs in Transition Economies, *Journal of Economic Perspectives,* Vol.16, No.3, pp.153-170
16. Mueller, S.L., Goić, S. (2002). Entrepreneurial Potential in Transition Economies: A View from Tomorrow's Leaders, *Journal od Developmental Entrepreneurship,* Vol.7, No.4, pp.399- 414
17. Porter, E. M. et al. (2007). The Global Competitiveness Report 2007-2008, The World Economic Forum, Geneva
18. Porter, E. M., Schwab, K. (2008). The Global Competitiveness Report *2008-2009,* The World Economic Forum, Geneva
19. Ribnikar, I. (1993), Ukidanje društvenog vlasništva, *Društvena istraživanja Zagreb 3,* Godina 2, br.1, pp.31-49
20. Schwab, K. et al. (2006). The Global Competitiveness Report 2006-2007, The World Economic Forum, Geneva
21. Schwab, K., Sala-i-Martín, X. (2009). The Global Competitiveness Report 2009-2010, The World Economic Forum, Geneva
22. Schwab, K., Sala-i-Martín, X. (2010). The Global Competitiveness Report 2010-2011, The World Economic Forum, Geneva
23. Schwab, K., Sala-i-Martín, X. (2011). The Global Competitiveness Report 2011-2012, The World Economic Forum, Geneva
24. Schwab, K., Sala-i-Martín, X. (2012). The Global Competitiveness Report 2012-2013, The World Economic Forum, Geneva
25. Schwab, K., Sala-i-Martín, X. (2013). The Global Competitiveness Report 2013-2014, The World Economic Forum, Geneva
26. Singer, S. et al. (2015). GEM 2014 Global Report, Global Entrepreneurship Research Association (GERA)
27. Stojanov, D. (2001). Bosna i Hercegovina od 1995.: tranzicija i rekonstrukcija privrede, U: Bojičić Dželilović, V. (2001). *Međunarodne politike podrške zemljama jugoistočne Evrope : Lekcije (ne) naučene u BiH*, Müller, pp. 61-88

28. Umihanić, B. et al. (2013). GEM BiH 2012: Through Entrepreneurship Education towards Youth (self)Employment“, ISSN 1840-4871, CIP - Cataloguing in Publication National and University Library of Bosnia and Herzegovina, Sarajevo, 334.72:338.1., COBISS.BH-ID 20516870, Centre for Entrepreneurship Development Tuzla
29. Umihanić, B. et al. (2010). GEM BiH 2009: Recession Reduced Entrepreneurial Activity in BiH, ISSN 1840-4871, CIP 334.72:338(497.6)(047.1) COBISS BH-ID 17998854, Centre for Entrepreneurship Development Tuzla.
30. Umihanić B, et al. (2011). GEM BiH 2010: New Jobs Through Entrepreneurship, CIP - Cataloguing in Publication National and University Library of Bosnia and Herzegovina, Sarajevo, 658. COBISS.BH-ID 17628422, Centre for Entrepreneurship Development Tuzla
31. Umihanić, B. et al. (2012). GEM BiH 2011: To Develop and Strengthen Entrepreneurial Spirit in Bosnia and Herzegovina, ISSN 1840-4871, CIP - Cataloguing in Publication National and University Library of Bosnia and Herzegovina, Sarajevo, 658. COBISS.BH-ID 17628422, Centre for Entrepreneurship Development Tuzla
32. Umihanić, B. et al. (2009). GEM BiH 2008: To Improve Entrepreneurial Environment in BiH ISSN 1840-4871, Centre for Entrepreneurship Development Tuzla
33. Van der Zwan, P., Verheul, I., Thurik, R. (2011). The Entrepreneurial Ladder in Transition and NON-transition Economies, *Entrepreneurship Research Journal,* Vol.1, Issue 2., Article 4
34. Verheul, I., Wennekers, S., Audretsch, D., Thurik, R. (2001). An eclectic theory of entrepreneurship, Tinbergen Institute discussion paper, Tinbergen Institute, Amsterdam.
35. Wennekers, S., Thurik, R. (1999). Linking Entrepreneurship and Economic Growth, *Small Business Economics 13:* pp. 27–55

BUSINESS VS STATE RELATIONS IN TRANSITION ECONOMIES REPUBLIC OF MOLDAVIA AND ROMANIA CASE STUDY

Authors: University Professor Ph. Anatolie Caraganciu

University "Lucian Blaga",Sibiu,Romania

e-mail:an.caraganciu@gmail.com

PhD. Candidate Erincz Alicia

University "Lucian Blaga", Sibiu, Romania

e-mail: alice.erincz@rolcontexpert.ro

Abstract

When we think of corruption, an image quickly comes to our mind, a bureaucrat that asks for bribe from powerless and individuals, from defenseless companies, simply to enable them to "get things done." Behind this issue is an understanding of the state, extracting the rents from economy for the exclusive benefit of politicians and bureaucrats. Such an approach had a strong impact on the way the corruption has been analyzed and measured in the recent years. Politic recommendations have emphasized the reduction of the discretionary authority of the state officials to eliminate their opportunities to extract bribes. For the first time, the measures related with high-level corruption investigations, target the private payments for public officials in order to influence the content of the basic rules (for example, legislation, rules, laws or decrees). As result in a large system of corruption, the key institutions of the state can be "captured" by the private interests to influence the policy-making process for private companies and transforming the government actions in opaque operations.

While corruption reduces the amount of infusion of foreign direct investment (FDI) in transition economies also appears the tend to attract lower-quality investors regarding important governance standards. In particular, in countries where the state is very sensitive to attract investments, the companies with foreign direct investment (FDI) have far more chances likely than their counterparts, to engage in internal forms of corruption and political influence (. Joel S. Hellman , Geraint Jones and Daniel Kaufmann and Mark Schankerman 2000. Measures of governance and corruption: Bureaucracy and companies role in shaping the business environment in transition economies, World Bank Working Document 2312. World Bank, Washington DC.).

We will focus on two types of corruption:

1. State Capture: defined as a system of political corruption where private interests significantly influence of a state decision making for their own advantage through illegal channels.

Influence can be exercised through a number of state institutions, legislature, ministries and judicial system

2. Bribe in the public procurement system: defined as private illicit payments in the favor of public officials to secure public procurement contracts.

In transition economies, corruption has a new image, the so-called oligarchs who manipulate training policies and even shaping the emerging rules for their advantage. We refer to this behavior in terms of state capture. Although this form of high-level corruption is increasingly recognized as a problem and is subject to reformeconomies, a few efforts have been made to distinguish its causes and consequences, to other forms of corruption. In addition, there were no attempts to measure this specific type of corruption and to make comparisons between countries.

KEYWORDS: *corruption, direct foreign investments, bribe, political corruption, institutions*

Economies in transition

The transition to a market economy represents the prerequisite to reviving the economic activity, to ensure the general welfare. Centralized economy, proved to be ineffective, its mechanism of operation, based on socialist ownership, was not able to secure the freedom of action of the economic agents, their business profitability on market competition criteria.

Direct result of this economic system was constituted by:

- Continue alienation and in mass proportions, of the man regarding the fruits of his labor
- Birth and development of the lack of motivation to work, with serious consequences on the effectiveness of economic activity.

Economy in transition trying to shape the kind of economy that capitalize the economic potential to create a modern economy, efficient, of European nuance.
The mechanisms of this new economy aim that the efforts to turn into progress and prosperity.

To join such an economy is the need of

- A legislative framework to give private ownership of property, to regulate the functioning of the banking, financial and accounting system, as well as legislating on restructuring, privatization and bankruptcy;
- Training owners, managers and employees in relation to market-oriented production requirements;
- Modern management systems in the financial, production and marketing domain;
- Modernization of production and information systems and data processing in order to increase productivity and production quality of managerial and management efforts.

It is necessary to be considered a set of principles, in accordance with guidelines and regulations of European bodies:

- protection of human dignity;
- universalising of social protection measures;
- promoting the principles of solidarity and social justice;
- eliminating all forms of discrimination across the entire social protection policy;
- flexibility, adapting social protection measures to real needs of groups and in particular of individuals;
- orientation, if possible, of objectives and policy measures and social protection in the direction of mobilization and participation of all social forces to economic recovery, the employment is the primary source of wealth and individual freedom, the source of the most stable health of the company.

"There is one rule for the industrialist: builds the best products at the lowest cost and pays the highest wages they you can pay ."[160]

But in transition economies this rule is not always applicable.

The salaries sometimes or often are unmotivated in these economies, the emergence of multinationals, their influence on state, orientation of economic policies in favor of the private gain influences make that the influences to be felt in the economy and especially on the welfare of the individual, whose aim in such a company is the accumulation in order to acquire private property.

From a man who is not allowed to have private property, can not wait than to eat as much as he can and to work as less as he can.[161]

[160] Henry Ford

Effects on foreign investments in transition process to market economy and their influence on the economic policies

Foreign direct investments defined as direct or indirect ownership of a foreign entity to own at least 10% of the voting shares of a company are an important component of the economy of transition, meaning a significant infusion of capital for that country, but furthermore, there is a great risk and their involvement in forms of corruption and political influence, as we have shown in order to obtain benefits in the private interests and to the detriment of some participants in the economy in transition, namely individual. A foreign direct investment can mean an acquisition, a merger, a new plant, plant expansion or an absorption.

A fundamental aspect of direct investment, is that the investor buys the power to exercise control over the management of the investment and that is why does not involve only the capital. This involves technical or managerial skills and marketing knowledge. The power of control will vary depending on the distribution of the shares in that company. The explanation for this is that if an investor holds over 30% of the shares in a company and nor any other investor owns more than 10% is likely to be able to exercise control although it is a minority, not having a 51% of the shares of a company.

Another fundamental difference is the final target of the investor, the direction of the investor's portfolio. Portfolio capital tends to move in some sectors from foreign countries that have an advantage over those domestic sectors. This benefit will be reflected in higher profits. The imposed thing required is likely to happen with a direct investment in an industry in which the source country has an advantage but where this advantage may be transferred to a foreign country in its favor.

Foreign direct investment can play a crucial role in economic recovery on restructuring on a sustained growth. The western companies by introducing the high technology and the modern management models to their open subsidiaries Romania shall put under pressure the Romanian companies that will be obliged, in turn, to achieve such improvements.

There are other benefits that a foreign investment could bring, such as:

- achieving the necessary quantity of all potential foreign or internal markets;
- creating new jobs;
- access to new markets

Multinational companies can use their already formed their connections to import and export goods from and to Romania, thus increasing the weight of the Romanian economy in the world economy.

On the other hand the investments are the most volatile component of GDP. When the exports of goods and services going through a recession period and this decline is usually due to a decrease of the expenses for investment. With much less volatile than national investments, the foreign direct investments respond to much more determinants than the national investment but there is the risk of corruption increase and the influence of economic policies of that country.

[161] Adam Smith

Coruption

Corruption is often cited as a major institutional constraint business. Conventionally, corruption is defined as an abuse of public office for the private gain. However, this definition includes a number of practices that are differentiated here. There macro-dimensions of corruption, through which is understood the impact of various nationwide forms of corruption.[162]

Great corruption is defined as the existence of private payments in favor of public officials in order to influence the basic rules of the game, for example legislation, regulations, laws or decrees.

As a result of serious corruption, the key institutions of the state can be "captured" by private interests in the policy elaboration process in favor of private companies, and also the transparent government operations.

It also generates the relationship of individuals with companies, the problems with which are facing in their direct relation with the state.

To these forms of corruption in international law, we have references to the facilitation payments, that are private payments to public officials in order to facilitate the implementation of administrative regulations of the state in favor of business activity. In general, the facilitation payments are not covered by international conventions anti-bribery. Furthermore, the facilitation payments are more likely to be extracted from the companies state bureaucrats who have the power and freedom to intervene in the market. The state capture and procurement of kickbacks are more likely to be initiated by companies to gain advantages in the legal domain, certain decisions in their favor. They tend to be instruments of influence, the gain being divided between companies and bureaucrats.[163] Focusing on capturing and state procurement, the bribery allows us to clarify certain forms of corruption faced by companies and to examine those forms that could offer better prospects in incentives and in the behavior of the company.

The BEEPS survey (Business Environment and Enterprise Performance Survey) provides the first empirical measures of state capture. The companies were asked to reveal the types of bribery in which were committed. Those who have made private payments for civil officials in order to influence the content of the laws, decrees or regulations are designated as captor companies. Similarly, the companies were asked whether they made private payments for public officials to obtain public procurement contracts, although this question was addressed to the companies that were already identified as having trade with the state, being identified as rebound companies. The table presents data on the number of captor enterprises and rebound companies in every country. In addition, the table provides a measure of the average share paid in bribes by the companies as a share of their annual income.[164]

---

[162] *Joel S. Hellman*
Geraint Jones
Daniel Kaufmann
Mark Schankerman- Measuring Governance,
Corruption, and State
Capture

[163] Such a view might be termed the “shaking hands” model of government.
See World Bank (2000) for a detailed analysis of corruption in the transit

[164] The question was posed in terms of firm revenues rather that profits since estimates of revenues are more reliable. In addition the question was posed indirectly in terms of "firms like yours" to reassure respondents that their responses would not be attributable directly to their firm. We take total payments as a proxy for administrative corruption since evidence from the BEEPS suggests that the majority of bribe payments are for this purpose.

This is an indicator of the degree in which the payments representing the bribe in all forms of corruption, including facilitation payments made by the company in each country. Table data allow us to examine din both the corruption types employed by the companies and the degree of extension of payments as bribes.

Tabel 1. Measuring the Types and Level of Corruption in Transition Economies

Country	**Share of Captor Companies**[165]	**Share of Kickback Companies**[166]	**Average Share of Annual Companies Revenues Paid in Bribes**[167]
Albania	11	51	4.0
Armenia	7	26	4.6
Azerbaijan	24	52	5.7
Belarus	2	5	1.3
Bulgaria	11	13	2.1
Croatia	10	26	1.1
Czech Republic	7	43	2.5
Estonia	5	28	1.6
Georgia	8	18	4.3
Hungary	4	15	1.7
Kazakhstan	6	21	3.1
Kyrgyzstan	7	19	5.3
Latvia	14	22	1.4
Lithuania	14	15	2.8
Moldova	12	9	4.0
Poland	9	32	1.6
Romania	13	39	3.2
Russia	9	22	2.8
Slovakia	12	35	2.5
Slovenia	10	27	1.4
Ukraine	12	33	4.4
Uzbekistan	2	24	4.4
Overall	9.5	26	3.0

Source: Hellman, Jones and Kaufmann(2000)based on BEEPS

In transition economies, corruption has a new image, of the so-called oligarchs, handling and training policies and even shaping the emerging rules of the society to their advantage, became very important. We refer to this behavior as state capture. Although this form of high-level corruption is more recognized as a problem and is hard to be handled, few efforts have been made to distinguish

[165] Firms were asked whether state capture in each of the following dimensions (parliamentary legislation, presidential decrees, central bank, criminal courts, commercial courts, political parties) had no impact; minor impact; significant impact or very significant impact on their business. Those firms that reported a significant or very significant impact were classified as *affected by state capture* in that dimension. The state capture index is calculated at the unweighted average of the proportion of firms in each country affected by each of the six components of state capture.

[166] Those firms that traded with the government were asked: how often do firms like yours nowadays need to make extra unofficial payments to public officials gain government contracts? The responses ranged across always; usually; frequently; sometimes; seldom and never. Those responding sometimes or more frequently were classified as kickback firms

[167] Firms were asked: What percentage of revenues do firms like yours pay per annum in unofficial payments to public officials? The responses ranged across 0%; less than 1%; 1 to 2%; 2-10%; 10 to 12%; 12 to 25%; over 25%. The variable was interpolated at 0%, 1%, 2%, 6%, 11%, 19% and 25%.

its causes and consequences from those of other forms of corruption. In addition, there were no attempts to measure this specific type of corruption and to compare it between countries.

We define the state capture as the efforts of the companies to shape the laws, policies and regulations of the state in favor of own advantage by providing illicit private gains to civil servants.

In recognizing the corruption, the attention must focus on the complex interactions between companies and the state.

In particular, the mechanisms by which the companies try to shape the decisions taken by the state to obtain specific advantages, often by imposing anticompetitive barriers that generate gains concentrated to strong companies selected at a significant social cost.

Because such companies use their influence to block any political reforms that might eliminate these advantages, the state capture has become not only a symptom but also a fundamental cause of bad governance.

From this point of view, the economy of corruption is caught in a vicious circle in which policy and institutional reforms needed to improve governance are undermined by the complicity of powerful companies and state officials who accumulate substantial private gains maintaining a weak governance.

While most types of corruption are directed toward changing the way that are implemented the laws, rules or existing regulations regarding the bribe payers, state capture refers to corrupt efforts to the influence on how such laws, rules and regulations are formed.

Bribe to parliamentarians to "buy" votes on important legislative acts, bribe of the government officials to adopt favorable regulations or decrees, bribery of judges to influence court decisions, these are classic examples of great corruption, whereby the companies can have advantages for themselves into legal structure and in some basic regulations of the economy.

Republic of Moldova case study

Corruption seriously affects the Moldavian society for a long time, constituting a major impediment to social and economic development of the country. This social phenomenon has become the object of study and deeper analysis only in the last 10-15 years, since corruption has spread to all areas of activity, reaching a worrying level.

Today, corruption is increasingly affecting the standard of living and quality of life, efficient functioning of state institutions to the normal parameters of an economy in transition. According to sociological investigations, corruption is considered by most people as the three main issues facing our society today, the first two being poverty and unemployment. The high level of perception of corruption and its impact on society confirms the results of the international classification regarding the Corruption Perception Index, according to which, in 2006, Moldova was ranked on the 81st place out of 163 countries included in the classification, and in 2007 occupied 113th place out of 180 countries [168].

To elucidate the corruption phenomenon and to identify the measures to combat it, jurists analyze the legal framework and try to identify the gaps in legislation that make vulnerable the rule of law, implementation of laws and their operation in normal conditions.

[168] Victor Mocanu- Institute of European Integration and Political Sciences of the Science Academy in the Republic of Moldavia

Corruption is considered by most of the population as one of the main problems with which the Moldavian society is facing in the recent years and a major impediment in the social and economic development of the country and hence its integration into the European Union. The population is increasingly aware that corruption seriously affects the standard of living and the quality of life of people, efficiency through which the state institutions operate.

The most corrupted fields of activity remain medicine, education, police and customs. According to estimates made by experts from Transparency International Moldavia, the volume of unofficial payments in various state institutions constituted in 2007, about 900 million lei, or approximately 6.5% of total revenues to the state budget in that year.

According to the study, the main causes of corruption in Moldavia are considered low salaries and not holding responsible the corrupt people. Most of the population (85%) believe that laws are not well enforced or applied (72%). Therefore, about 70% of Moldavian citizens consider that not all citizens of Moldavia are equal before the law.

For the implementation and effective operation of the laws is necessary a certain level of culture, spiritual and moral education of every citizen, that's because the act of corruption depends not only on the law but also on the feeling of responsibility.

Research in this field show a great tolerance towards corruption population, they are willing to pay bribes for solving their problems.

In this context many talk about corruption, they are outraged by its existence, but in particular the majority of citizens do not know about the forms of corruption.

In contrast they are optimistic that, about 76% of the population, the phenomenon may be limited.

Romania case study

The issue of corruption in post-communist Romania was one of the factors that have hindered economic development and political progress, an element that sabotaged from inside the Romanian path and aspirations to an entry in normality after the 1989 revolution.

Under these conditions, have come the first reactions from the society, that of governmental forces to take a range of measures to prevent and combat this phenomenon.

Development agencies, governments and multinational companies have not even denied the existence of corruption and their inability to limit this phenomenon in the past, some taking measures to combat corruption, openly and systematically in national strategies and programs that have inclusively received solid funding. Have appeared specialized anti-corruption bodies with attributions and powers that allowed them, at least theoretically, to take effective action against corruption.

They developed national programs against corruption, have been created specialized institutions and took place the improvement of the intern legislation. Also the states have concluded that and interstate cooperation in the area could increase the effectiveness of actions to combat corruption, which would benefit all those involved. This has led to the preparation and development of anti-corruption policies and international mechanisms for global and regional dimensions, which have as objectives: promoting political commitments regarding the fight against this phenomenon, developing and implementing common policies to prevent and combat corruption, settling some

rules, criteria and universal standards on the legal classification of corruption, streamline the operational and technical cooperation for combating corruption, enhancing the exchange of experience, monitoring the phenomenon of corruption and the implementation by states of the measures listed above.

Romanian government in collaboration with various civil societies and with the help of international organizations have established that the fight against corruption must become one of the central concerns of the entire Romanian society to increase the level of integrity and trust in the state institutions and to integrate the Romanian society among the European community. Currently, no state, regardless of the level achieved in democratic structures, is not exempt from the scourge of corruption. Even the well-established, traditional democracies, face this scourge.

"There is a direct and indissoluble connection between the Corruption Perception Index the economic competitiveness and ability to withstand the financial crisis.[169]

The main causes that feed corruption in Romania are lack of political will, weakness of the state institutions and tradition.

The measures to eliminate this scourge had a faulty implementation, this brakes the economic growth and contribute to the decline of the political system.

Conclusion

Although the mechanisms by which corruption harms foreign direct investments (FDI) are now well known compared it is less known about the behavior of investments companies in corrupt environments.

Corruption not only reduces the FDI flows, but also attracts a lower quality of investments.

FDI companies perform forms of corruption that are appropriate for their benefits at local direct investment, with joint venture partners, they tend state capture, while FDI multinationals rely more on bribes on public procurement. It is important to be recognized that in economic terms these forms of bribery generate substantial gains in foreign direct investment companies.

There are practices that are trying to implement legal transnational restrictions of preventing the bribery for example OECD Convention on corruption of public servants.

The evidence show that were not reached higher standards in these corporations in transition economies.

This suggests that the OECD Convention should be focus more on applying its restrictions on transnational bribery of public officials.

It is also necessary to encourage competition in transition economies, creating a more competitive market that puts constraints on the ability of a small group to play with the laws and the economy of a state.

[169] Victor Alistar., Executive director of Transparency International Romania.

The practice show that foreign companies that make direct investments in countries with economies in transition can influence and monopolize the corruption as much, if not more, as the local companies.

It is also important a strict approach to the lack of responsibility, transparency and competition in the domestic market, thus allowing such forms of corruption.

Corruption is not only a fact of life, it is also a global phenomenon. In the recent years, it has reached unprecedented levels and no country, no matter how rich or powerful it is, can not claim to be completely immune to the ravages caused by this phenomenon.

References

1. Ciobanu, I., Transnational organized crime and some forms of manifestation in Moldavia, Chisinau, 2002; Gurin, V., Sergiu, I., Corruption, Chisinau 2000 Timis, A, Klimenko, V., Martîncic, E., Crime in the mirror of public opinion, Chisinau, 1990.
2. National Strategy for Preventing and Combating Corruption, approved by the Parliament Decision of the Republic of Moldavia no. 421 of 16.12.2004. Government Ddeciison "On the State program to combat crime and corruption for 2003-2005", Official Gazette No. 185 of 31.12.2002. Moldavian legislation "On combating corruption and protectionism". Official Gazette no. 56 of 22.08.1996; United Nations Convention against Corruption, 2003.
3. Explanatory dictionary of Romanian language, Bucharest, 1984, p. 201.
4. Rotaru, M., Preventing and combating corruption in higher education institutions, Legal culture and preventing corruption, international conference materials, Chisinau, 2007
5. Bulat, V., Guţuţui, V., Spinei, I., Civil society participation in the local decision-making process, Chisinau, 2005.
6. Caraşciuc, L., Corruption and Governmental Quality: Moldavian Case, Chişinău, 2002; Caraşciuc, L., Obreja, E., Popovici, T., Mîndru, V., Corruption and access to justice in the vision of the company and experts, Chişinău, 2002.
7. Postovan, D., Role of general culture, especially the legal culture in the development of the society, Legal culture and preventing corruption, international conference materials Chişinău, 2007.
8. Hellman Joel S., Geraint Jones and Daniel Kaufmann and Mark Schankerman. 2000. *Measuring Governance and State Capture: The Role of Bureaucrats and Firms in Shaping the Business Environment*

ENTREPRENEURSHIP AND SMES IN TRANSITION ECONOMIES - THE CASE OF WESTERN BALKAN COUNTRIES

Zijad Džafić[170]

Abstract

For the Western Balkan countries (WBCs), the transition from socialism to capitalism and democracy was less smooth than in other parts of Emerging Europe. This article reflects on and compares development of the Small and Medium-sized Enterprises (SMEs) sector and different government policy for this sector entrepreneurship in WBCs. The author, in this paper, point out the attained level of development and measures of this sector. A special accent is on many barriers of development SMEs in WBCs. The author have come to the conclusion that, in respect of SMEs, WBCs lags behind the countries in the EU. This article aims to analyze the system of the regulation and administrative facilitation aspects of doing business in the above-mentioned countries, whether this system stimulates, or not, the development of private SMEs and Entrepreneurship. In this paper, the author uses only some such as: The Global Competitiveness Report of World Economic Forum, World Bank's Doing Business Index, Heritage Foundation's Index of Economic Freedom, European Charter for Small Enterprises and Small Business Act of OECD and European Commission (EC) and Indicators of Business, Corruption and Crime in WBCs of the United Nations Office on Drugs and Crime (UNODC).

Many evidence from the countries of western and central Europe show that the development of SMEs sector and entrepreneurship is a key factor for a successful transformation from command to market based economy in sector in the WBCs. In conclusion, this paper examines the influence of government policy on rates of entrepreneurship and SME across WBCs, a topic that has been receiving increasing attention in the last several decades. WBCs, like other transition economies are characterized by generally lower rates of entrepreneurship when compared to highly developed economies of Western Europe. Moreover, there are significant differences in rates of entrepreneurship within former transition economies. Such phenomena are results of different historical developments of individual transition economies, the amount of time spent in socialist economic conditions, the influence of various dictatorships to restrictions in subsequent rates of entrepreneurship, etc. Key role in the allocation of entrepreneurial activity, is precisely the development of institutional framework, which consists of formal and informal spheres.

***KEYWORDS**: Government Policy, Economic Regulation, Small and Medium Enterprises, Western Balkans Countries.*

JEL: L 25, L 26

[170] Faculty of Economics, Tuzla University, Bosnia and Herzegovina

E-mail: zijad.dzafic@untz.ba

1. Introduction

Small and medium-sized enterprises (SMEs) are recognised by researchers, analysts and policymakers as central to economies across the world, through their contributions to income generation and employment. SMEs are very important for the functioning of developed countries as well since they employ a big number of workers, for example 60 to 70 per cent of all employed people in the countries that are OECD members. The SMEs sector accounts for 99% of firms in the OECD area, and 50-75% of value added across these countries (OECD, 2010). Entrepreneurial activity behind SMEs has been increasingly recognised as a major driving force for innovation and economic growth in all economies (Audretsch, 2001). Also, in the European Union, there are more than 20 million of SMEs, which make up more than 99,8% of all the companies, and 67% of all the employed in private sector, or 86.8 million of job posts (European Commission, 2013). They are a major source of entrepreneurial skills, innovation and employment. That means that SMEs have a share of more than three-fourths of all the employment market. SMEs sector offers the opportunity for the fastest implementation of modern solutions and practices of developed countries, which have built their industrial power thanks to SMEs. In particular, the underlying entrepreneurial activity behind SMEs has been increasingly recognised as a major driving force for innovation and economic growth in all economies (Audretsch and Thurik, 2001).

As a result the success, or otherwise, of SMEs and entrepreneurship has become increasingly important to governments and public administrators in WBCs. WBCs includes Albania, Bosnia and Herzegovina, Croatia, Macedonia (FYROM), Montenegro and Serbia. In spite of these evidence, SMEs continue to face a number of business environmental obstacles. Also, in this research a critical questions are: what policies can governments adopt to foster such activity, as well as, what can policymakers learn from the experiences of other countries. SMEs frequently have difficulties in obtaining capital or credit, particularly in the early start-up phase. Their restricted resources may also reduce access to new technologies or innovation. In comparation with the development of SMEs of the developed countries, development of SMEs and entrepreneurship in WBCs, are in same kind of schizophrenic position in the economy, especially in Bosnia and Herzegovina. No doubt, they inevitably need, government assistance. SMEs can not develop without government assistance at all levels, and SMEs can not give up to the invisible hand of the market.

In conclusion, this article examines the influence of government policy on rates of entrepreneurship and SMEs across WBCs, a topic that has been receiving increasing attention in last several decade. Recent research has explored the influence of several state-level policies on entrepreneurship and SMEs, but we extend this literature by considering other policies, such as many government's obstacles for doing business, i.e. tax rates, procedures, registration costs, acces to capital, lack of legislation, corruption, bribery, etc. As in most countries in transition, at the beginning of the 21st century, an obvious lack of big markets led to greater fragmentations of market where SME had successfully entered thanks to their innovative and entrepreneurial skills. There is evidence that SME create employment opportunities and contribute to economic growth in WBCs. The fact is that SME, having specific characteristics, find profitable businesses the quickest possible way. SMEs create new jobs, products and services, help in restructuring former state enterprises, which is very important for transition countries, and generate government revenues. Also, SMEs stimulate private ownership and entrepreneurial skills and innovation.

1. Research concept

1.1. Methodological approach and defining hypothesis

The goals of this research will be realized on the basis of secondary data. Secondary data will be taken from relevant literature, different studies on this topic, and from many sources available on the internet and libraries. In this paper, the primary focus will be on analysis government policy for SMEs sector in Western Balkan countries and identifying the most important barriers to development of SMEs. Variable will be: bureaucracy, issuing of building permits, corruption, lack of capital, government support for development of SMEs, lack of government measures for stimulation of employment, legal counselling, financial and tax counselling.

Many research and literature show that SMEs are one of the main levers for the restructuring of industrially developed countries, and that SMEs became one of the most important factors for development in underdeveloped countries and countries in transition. If we look at SMEs and their development in this regard, in light of making the whole region of the WBCs closer to the European Union, it is clear that SMEs in this part of Europe must develop faster and become a dominant form of business in the region. Therefore, this research paper is based on the following hypotheses:

H1: Development of SMEs presents the basic component in the process of transition in WBCs, but the business environment is not stimulating enough for the development of SMEs and entrepreneurship.

H2: There are numerous barriers for the development of SMEs in WBCs, such as: institutional, legislative, financial, corruption, tax rates, bribery.

In order to understand and explain the aforementioned problem, it is essential to objectively and empirically explore its origins and identify the appropriate instruments for solving it. Therefore, the subject of this research is the establishment of the position of the SME sector in WBCs and pinpointing the main obstacles in the development of the SMEs sector in these countries. *Main goals of research are:*

- *Identify the institutional framework for entrepreneurship in WBCs.*
- *To identify government support development of SME in WBCs.*
- *To identify the key obstacles of faster development of SMEs in WBCs.*
- *To identify the number of SMEs and their contribution in terms of employment in WBCs.*

As in developed European countries, the creation of a new SME sector may play an important role in the process of economic regeneration and job creation in the transition countries. In the context of high unemployment and a declining role of large state firms this aspect has been especially important in the transition economies (Bartlet, Popa, Popovski, 2013). The shift away from a reliance on large firms to generate economic growth has been a global phenomenon over the last three decades. Thurik and Wennekers (2004) characterise this as a shift from a ‘managed economy’ of large firms in the immediate post WWII years, to an ‘entrepreneurial economy’ of small and medium sized firms in the 1980s onwards.

1.2. Theoretical framework of research - literature review

The economy of the 21st century has a different set of rules than Smith’s economy of the 19th century. The new ideology of neoliberalism emphasizes the role of SMEs as promoters of a “healthy” business climate, economic efficiency and power for economic growth, especially in small, developed countries, and even more so for countries in transition. For almost three century,

economists have been making contributions to the academic literature on entrepreneurship (Cantilon, Mill, Say, Knight, Schumpeter, Krizner, Casson, Shackle etc.) who advanced our understanding of the entrepreneur's role in the economy.

While there are various papers pertaining to the problem of obstacles to the development of SMEs in general in WBCs, few deal with the government policy and obstacles facing entrepreneurship and SMEs.

For Albania, *Gruda and Lindita* have described the main obstacles to the growth of SMEs, pointing out that in the early transition phase an inherent phenomenon of the market is competition, in which Albanians had no experience (Gruda and Lindita, 2010, 125). Also, for Albania, *Pere and Hashorova* have described business regulation and economic growth in the WBCs and had analised the correlation between economic growth and elaborated indicators which present the level of business administrative regulation system (Pere and Hashorova, 2013).

For BiH, *Hasic (2006)* discusses the problem of SMEs development in BiH with the aim of determining their abilities to adapt to great challenges of the future pertaining to business surrounding, caused by active Bosnian inclusion in the process of globalization. (Hasić, 2006). *Dzafic*, have analised development of SMEs in BiH compared to other WBCs (Dzafic, 2008) as well as internal and external obstacles to the development of SMEs in BiH (Dzafic at all, 2011). Also in the next papers *Džafić and Rovčanin* (2009) have described how the development of SMEs and entrepreneurship is in its initial stage, although this sector of the economy could become a primary force in the country's development. There is no policy, nor are there specific objectives for the development of SMEs in BiH. (Džafić and Rovčanin, 2009).

To research SMEs in Croatia *Čučković and Bartlet (2013*) presents the current position of the SMEs sector in Croatia and some selected indicators of the level of entrepreneurial activity and the main obstacles for development SMEs. Also, in Croatia *Kersan-Skabic and Bankovic (2008)* show and compare development of SMEs sector in Croatia and EU. (Kersan –Škabić, Banković, 2008). *Benšic and Šarlija (2000)* have analyzed the influence of businessmens' characteristics on the number of the employed in Croatian companies. The sample taken for the research was made up of 200 enterprises in Croatia (Benšić, Šarlija, 1229). *Turcic and Hunjet (2002)* have presented the structure of employment, capital and income, business productivity, export trade, investment, losses and debts of Croatian economy overseas and based on different variables (Turčić, Hunjet, 2002, 49).

In Serbia, *Bešić and Đornević* have analysed the need for organizations to have a modern concept of business management, in order to fulfil the goals of business excellence (Bešić and Đornević, 2008, 56). Karić have analysed role of the state in development of SMEs in the world and in Serbia (Karić, 2011). Bobera and Lekovic have analysed barriers to innovation in AP Vojvodina - analysis of data and research findings from the aspect of age and gender (Bobera and Lekovic, 2013).

In Montenegro, the "*Strategy for the Development of SMEs*" was published by the Directorate for SME development in 2007. This document identifies obstacles to SME growth and development, including business climate, as well as analysing financial and institutional support.

The authors from FYR Macedonia have provided a brief overview of all the major obstacles and issues affecting the SME sector. The document puts forward key areas where policy improvements are needed in relation to the SME sector. (Pinto et al., 2007). Also, Lazarevski, have examined and analysed the differences between Venture Capital development in Macedonia and several Central and Eastern Europe countries (Lazarevski at all, 2012).

2. International reports relevant to the assessment of the business environment in WBCs

Creation of favourable business environment is one of the key preconditions for economic recovery and growth of the WBCs. There are many international reports and datasets relevant to the assessment of the business environment in this region. In this study we will use only a few, such as: The Global Competitiveness Report of World Economic Forum, World Bank's Doing Business Index, Heritage Foundation's Index of Economic Freedom, European Charter for Small Enterprises of OECD and EC.

3.1. Comparative analysis of the key indicators of economies of the WBCs

The competitiveness of the economies of the WBCs represents a strategic European interest. Well-functioning market economies, resistant to global competitive pressure, contribute to the political stabilization of the Western Balkan region as well as to growth and jobs for Europe, which is the EU's main policy objective for the years to come (OECD, 2010).

This region has population of less than 24 million and relatively low level of development. Its total GDP is 68.9 billion EUR, which accounts 0,5% of the EU-27's GDP, or the WBC's average GDP per capita in purchasing power parity (PPP) terms was 7,859 EUR, or 31% of the (EBRD, 2012). According to Eurostat, BiH has the lowest GDP, per capita and the lowest Actual Individual Consumption (AIC), of 37% European countries, according to a (Eurostat, 2013). A GDP that is 72% lower than the EU average puts Bosnia last overall on the list, behind all other countries from the WBCs. Albania is not far behind Bosnia, with a GDP that is 30% of the EU average, while Serbia and FYR Macedonia are both on 35% and Montenegro is on 42% (Balkaninsight, 2014). Size, population and level of economic development vary among the countries of the region. With population of approximately 7.2 million, Serbia is the largest country in the region, while the other countries have fewer inhabitans and can be regarded as small countries. Unemployment measured by registration is almost everywhere and it is one of the most important problem in these countries. In 2012, the rate of unemployment (as percentage of the labour force) was only under 20 % in Albania (14%), and Croatia (16%), while it was 20% in Montenegro 20%, 24% in Serbia. The highest unemployment rate was in FYR Macedonia 35% and BiH 31% (UNDCO, 2013).

After the collapse of socialist regimes in the early 1990s, ensuing conflicts in the region caused major disruptions, and income per capita fell. The pace of recovery was uneven in the second half of the 1990s: some countries such as Bosnia and Herzegovina and Croatia experienced a sharp turnaround in growth, while others such as Serbia and Albania faced high growth volatility. By the end of the decade, however, real GDP per capita in the region had recove red to its pre-1990 level, despite another recession around the turn of the century, when output in Albania, Montenegro, and Serbia shrank by over 10 percent in a single year. After 2000, the WBCs enjoyed su stained economic growth up until the global financial crisis. During this period, real GDP per capita in the region increased by more than 40 percent on average, riding the tide of deeper financial and trade integration with the rest of Europe, high capital inflows, rapid credit expansion, and productivity growth. While economic transformation in the region is largely complete in some areas, notably with respect to price, trade, and foreign exchange liberalization, more effort is needed in upgrading institutions, improving the business environment, building infrastructure, and developing financing markets. (IMF, 15 years of economic transition, 2015, p. 16)

Van Praag and Versloot (2009) have identified four economic benefit of entrepreneurship: job generation, innovation, productivity and growth. SMEs are now recognised by researchers, analysts and policymakers as central to economies across the world, through their contributions to wealth creation, income generation, output and employment (OECD 2011). In particular, the underlying

entrepreneurial activity behind SMEs has been increasingly recognised as a major driving force for innovation and economic growth in all economies (Audretsch and Thurik 2001).

As a result the success, SMEs and entrepreneurship has become increasingly important to governments and public administrators but what interventions seem to work, and which are of more limited utility (Robert and Michael, 2012). The relationship between entrepreneurship and economic growth has seen increased interest at the local, state, and national levels, and recent studies have shown that the contribution of the entrepreneurial sector to employment and GDP is increasing (Minniti, 2008; Audretsch & Thurik, 2001; Birch, 1987; Kumar & Liu, 2005) as well as, important social implications (Chell, 2007).

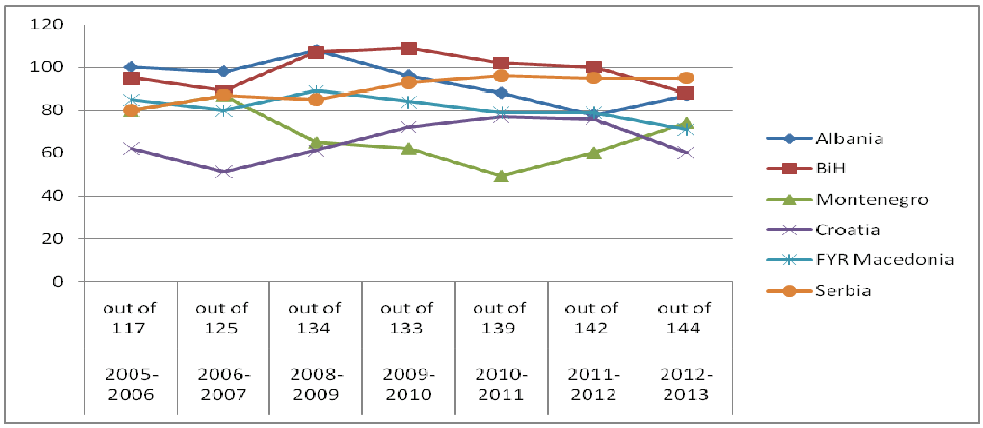
In terms of macroeconomic figures, economic growth and in particular GDP has been one of the most positive and stable characteristics of WBC. Compared with the average growth of 27 countries in the European Union (EU 27), the GDP growth in WBC shows that before the economic crisis, all these countries were faced with a significant and rapid increase of economic output. Considered a normal economic development, with an average increased about 6-7%, in the period 2005-2007, the GDP growth in the economies of the Western Balkans was higher than in the EU. In 2007, real GDP growth in Montenegro was 10.7%, in BiH 6.8%; in Macedonia 6.1%, Albania 5.9%; in Serbia 5.4%; and the lowest 5,1% Croatia (Pere E, and Hashorova A, 2013).

3.2. The Global Competitiveness Index

In order to estimate the effect of economic regulation on the WBC's countries, secondary data are used. The number of countries taken in these reports varies from year to year, almost from 2007 to 2014. Although in theory there are different views and definitions of competitiveness and their meanings, most economists agree that the 21st century will be a period of global economic competition. Competitiveness is seen as a model that includes two strategic orientations, the microeconomic and macroeconomic competitiveness.

The WBCs have not achieved significant results, particularly in the area of competitiveness. Most business organizations coming from this region and dominated by domestic capital have significant financial problems, especially when it comes to investing in new equipment and new technology. The economic crisis has only further negatively affected the process of investing in businesses in transition. The country acros region must, overcome some weaknesses including the lack of adequate manpower and to a greater extent focus on services with added value and innovation. Then, greater connectivity enterprises and scientific research sectors, and a lack of long-term strategies for sectors where the mind and the removal of institutional barriers to greater competitiveness of the economy.

Since the escalation of the economic crisis and intensified the crisis of the WBCs, the largest positive shift in the field of competitiveness achieved by Montenegro, a shift in the positive direction was recorded by Albania, BiH and Macedonia. Figure no. 1 provides a review of rank of BiH and neighboring countries ranked according to the total number of countries.



Source: Author calculation according The Global Competitiveness Report (WEF, 200-2013.)

Figure no. 1 Rank of BiH and WBC ranked according to the total number of countries

In the World Economic Forum's The Global Competitiveness 2012-2013 Report, BiH ranks 88th, Serbia 95th, Albania 87th, Montenegro 74th, FYR Macedonia 71st and Croatia 60th out of 144 economies (WEF 2012-2013). The competitiveness of BiH has the dimension of exports, given by the limited market size[171]. Strategic positioning within the internal market of the EU, it is important not only for future prosperity, but also for future EU membership. The role of foreign direct investments is indispensable. In the next WEF's The Global Competitiveness 2013-2014 Report, BiH ranks 87th, Serbia 101st, Albania 95th, Montenegro 67th, FYR Macedonia 73st and Croatia 75th out of 144 economies (WEF 2013-2014). Competitiveness of BiH economy are reduced from 95th (2007) to 131th (2014.) Also, the public does not demonstrate strong trust of politician about the government's ability to maintain arms-length relationship with private sector, capacity of innovation, quality of overall infrastructure, quality of roads, quality of scientific research institutions. (WEF 2012, pp. 115).

Thus, it is evident that without the implementation of the process of economic and regulatory reforms are no conditions for sustainable economic growth and increase competitiveness of the WBCs. Progress in these processes would allow countries in the region not only to successfully combat the effects of the global financial and economic crisis, but also to successfully integrate into the single market of the European Union, and face the competitive pressures of the EU countries. During this period, it is evident that a very slow and difficult development of the economies of the WBCs from the effects of the economic crisis in terms of reduced inflow of foreign capital and reduced export demand. We emphasize the necessity of change of the growth model, in which more emphasis be given to investment in production, increasing competitiveness and exports.

The most significant limitation of strengthening the competitiveness of the region are the existence of various barriers to the pursuit of economic activities, insufficient development of the institutional and physical infrastructure, relatively low efficiency of markets and labor, as well as a limited potential for innovation.

3.3. The Ease of Doing Business Index

The quality of the business environment in WBCs remains highly problematic and the region countries continues to lag behind other economies in Europa. In the latest World Bank's Doing Business 2014 report, BiH ranks 131th out of 189 economies, reflecting the deep-rooted problems

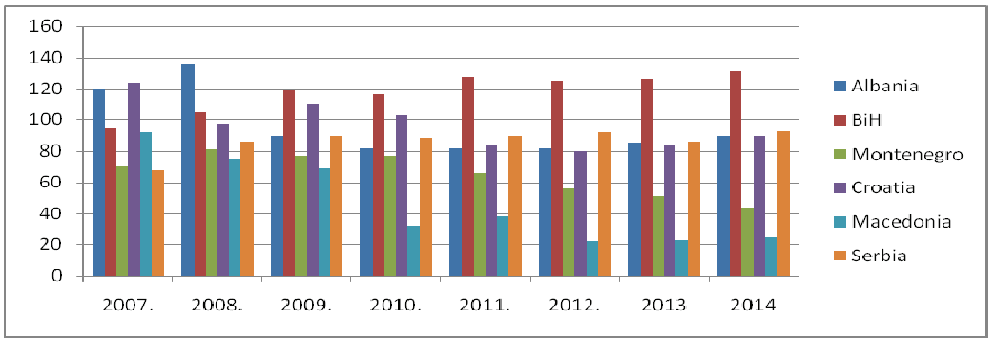
[171] In the latest the World Economic Forum's The Global Competitiveness 2014-2015 Report, can not be found Bosnia and Herzegovina, while other landlocked WB ranked as follows according to the competition: FYR Macedonia 63th, Montenegro 67th, Croatia 77th, Serbia 94th and Albania 97th. (WEF 2014-2015).

in the country. Its performance is particularly weak in indicators such as starting a business, dealing with construction permits and getting electricity (World Bank, 2014). In recent years, the authorities in other WBCs streamlined business regulations to reduce the cost of doing business, passed new laws to protect investors, and initiated projects to support the financial and technical needs of small and medium enterprises. These measures helped FYR Macedonia move from 92 (2007) to 25 (2014) in the World Bank's Doing Business rankings.

Corruption is a major challenge and Bosnia and Herzegovina is ranked 91st in Transparency International's 2011 Corruption Perceptions Index, the lowest rank in the SEE region after Albania (TI, 2011). "Corruption distorts entrepreneurial activity in several ways and at everal levels. First, bribes are usually charged on transactions or in return for government permission (to set up a business, gor example). Second, the money taken in the form of bribes is more likely to find its way into a safe foreign bank account. In both cases, the bribe acts exactly as a tax does: increase costs, reducing the volume of transactions and reducing incentives. Third, corruption distorts behaviour". (Wickham, P.A., 2006, p. 165). For all of these reasons, good governance and the rule of fair, effective law now seen as the single priority for economic development policy making in WBCs.

Also, generally speaking, entrepreneurs find legislation a burden. It is reason why many entrepreneurial activity would be find into the grey and black sectors. In the latest round of the Business Environment and Enterprise Performance Survey, more than one-quarter of the enterprises surveyed identified political instability, out of 15 possible obstacles, as the main problem affecting their operations (SME Policy Index, 2012). No notable progress has been made in the field of institutional and policy coordination at the state level since the previous reports in BiH.

Doing Business recognizes that the state plays a fundamental role in private sector development. Governments support economic activity by establishing and enforcing rules that clarify property rights and reduce the cost of resolving disputes, that increase the predictability of economic interactions and that provide contractual partners with core protections against abuse. So it is no surprise to find that there is no evidence suggesting that economies that do well on *Doing Business* indicators tend to have governments driven by a "smaller government" philosophy (WB, DB 2014 – Full-Report, pag 12). Ranking of ease of doing business countries of the WBC for the period of 2007 – 2014 are given in the next Figure.

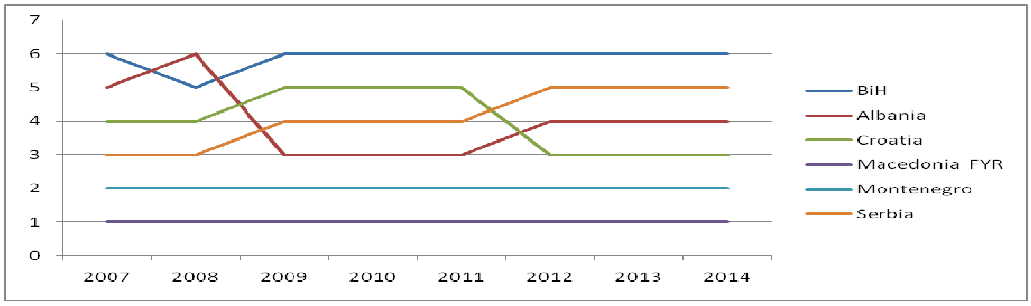


Source: Author calculation according World Bank, 2014.

Figure no. 2 Ranking of ease of doing business of the WBC for the period of 2007 – 2014

Based on World Bank's methodology of the „doing business" in WBC, for the period 2007 to 2014. Figure no. 2 shows the results of this ranking and the improvement of the situation to do business in the country. The index is calculated for all ten criteria of facilities to doing business i WBCs. The relative comparisons among WBC show that for these eight years BiH has the wortest business environment for entrepreneurships since 2009 year till now. Also, FYR Macedonia had a more positive ranking for all period, although the rates of growth in these countries have not been among the highest in the region.

We can conclude that the Bosnian's government from 2007 till now had no state vision for the development of entrepreneurship and SMEs, and in addition there are obstacles in the development of SMEs and of entrepreneurship set by the government.



Source: World Bank 2017-2014 and author calculation

Figure no. 3 Ranking of WBC according to the criteria of easy of doing business, 2007 – 2014

We can conclude that the Bosnian's government from 2007 till now had no state vision for the development of entrepreneurship and SMEs, and in addition there are obstacles in the development of SMEs and of entrepreneurship set by the government. These complicated procedures for doing business are a main source of corruption and payment bribery. It also showed a survey conducted by the UN based on interviews with more than 12,700 companies in WBCs (UNDOS, 2013). Although speeding up administrative procedures is the most important purpose of bribery for businesses in all WBCs, accounting for between 30 and 50 per cent of all responses in each of them, the relative importance of this and other purposes of bribery vary considerably.

For example, enabling the finalization of a procedure is the second most important motive in Albania (16.8 %), BiH (17.4 %) and Montenegro (14.%), which suggests that bribes in those countries are often used to influence outcomes of administrative procedures, such as by overcoming negative administrative decisions. On the other hand, receiving better treatment is the second most important purpose in Croatia (14.1 %t), after speeding up procedures, while Serbia (23.4 %) and the FYR of Macedonia (22.2 %) have large shares of bribes paid that serve no specific purpose (UNDOS, 2013).

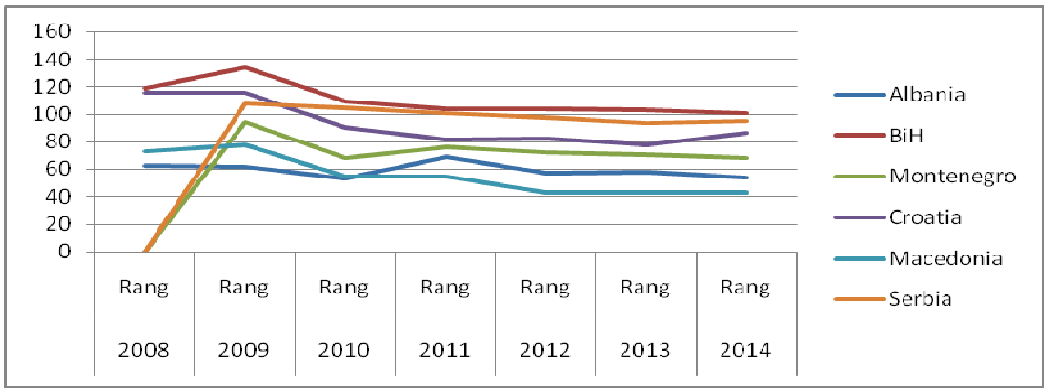
When it comes to relationship and interrelationship between entrepreneurship and development, many researcher have come to conclusion that entrepreneurship positively affects economic development (see for example. Naude 2008.; Wennekers, van Stel, Carree i Thurik 2008.; Acs 2007.; Hessels i van Stel 2007.; van Stel, Carree i Thurik 2004.; Wennekers i Thurik 1999).

3.4. Index of Economic Freedom

According to Heritage Foundation's Index of Economic Freedom 2014, BiH is "mostly unfree", with 3,9 milion of population, GDP (PPP) $31.9 bilion, $8,216 per capita, 5-year compound annual growth 0,8%, inflation (CPI) of 2.0%, unemployment of 28.0%, FDI Inflow of 632.9 milion and public debt of 44.3% of GDP. Bosnia and Herzegovina's economic freedom score is 58.4, making its economy the 101st freest in the 2014 Index. Its overall score has increased by 1.1 points, reflecting improvements in investment freedom, business freedom, and freedom from corruption. In the 2008, freedom score was 53,9 and rang was 119th in the 2008 Index. BiH is ranked 38th out of 43 countries in the Europe region, and its score is below the global and regional averages. (Index of Economic Freedom, 2014, pag. 129). BiH is ranked 7th out of 7 countries in the WBCs region

Based on the movement of the index of economic freedom for the WBC, it is evident that the most economic freedom is in FYR Macedonia, followed by Albania, and Montenegro, Croatia,

Serbia and BiH. Also, Ranking of Index of Economic Freedom of WBC for the period of 2007 – 2014 are given in the next Figure.



Source: Author calculation according Index of Economic Freedom 2008-2014

Figure no. 4 Ranking of Index of Economic Freedom of WBC for the period of 2007 - 2014

BiH was first ranked in the Index in 1998. Over the 17 years since then, its economic freedom score has advanced by about 29 points, the second best improvement of any country. With scores increasing in all 10 economic freedoms, BiH has made tremendous strides in eliminating economically repressive policies. Implementation of gradual structural reforms to enhance regulatory efficiency and market openness has moved it into the mid-ranks of the Index. Greater monetary stability has also been achieved. Nonetheless, Bosnia's economy is still considered "mostly unfree." Deeper institutional reforms, particularly related to eradicating corruption and ensuring judicial independence, remain critical to further advancement of economic freedom and improvement of economic growth (Index of Economic Freedom, 2014, pag. 130). Bosnia's economic freedom score is 58.4, making its economy the 101st freest in the 2014 Index and overall score is under world averages (Index of Economic Freedom, 2014).

3.5. European Charter for small enterprises and Small Business Act assessment

In 2000 the Lisbon Council set out a long-term holistic strategy signed to facilitate reform across a broad range of macroeconomic policy. Following criticism of policy overload, poor co-ordination, the Lisbon Strategy was relaunched in 2005 with a narrower focus on growth and jobs. Despite these modest reforms, the procedure for member states was never fully implemented (Begg 2007). Set against this backdrop, the Commission's proposals for the Europe 2020 strategy, agreed by national leaders at European Council in 2010, constituted a significant revision of the economic reform agenda (Copeland and Scot, 2013). Europe 2020 is guided by next priorities related to employment policy, poverty reduction, research and development and climate change (European Commission 2010).

In this context it is relevant to mention the European Charter for small enterprises signed by the Western Balkan countries. It calls on the member states to provide support in ten basic areas, including education, cheaper and faster start-ups, better legislation and regulation, increased availability of skills, and improvement of on-line access for SMEs (OECD and European Commission, 2009).

The Charter assessments over the years 2007 - 2009 offer a clear picture of the challenges facing policy-makers in engineering and steering reforms in the area of SME policy. Two examples of success in the region are Albania's restructuring of the company registration process, with a state-of-the-art registration system introduced in less than two years, and the launching of the one-stop registration system in the FYR of Macedonia. Lack of success in the same area is demonstrated

in BiH, where company registration reform, under consideration since 2003, has stalled (OECD and European Commission, 2009).

The last, SME Poliy Index report from 2012 shows us that economies have converged closer to EU SME policy practices and standards over the last three years. The WBC have recorded moderate progress in several areas, including the institutional framework for SME policy, regulatory reform and administrative simplification, company registration, entrepreneurial learning and business start-up processes as well as the legal and regulatory framework for access to finance. SMEs account for the largest share of total value added in these economies, while their contribution to total employment in the private sector ranges from 61% to 81% (SME Policy Index, WBC and Turey, 2012). Croatia and Serbia are characterised by an advanced degree of policy convergence with EU SME policy practices and standards, scoring above the regional average in most dimensions. Albania, the FYR of Macedonia and Montenegro have reached a generally good level of policy convergence, but the implementation of SME policy has been uneven across policy dimensions. Only, BiH and Kosovo are still lagging behind the rest of the region.

According UNODC survay, business owners and representatives from WBCs rank corruption as the third most important issue after high taxes and complicated tax laws as an obstacle to doing business in their country. In fact, corruption is considered a major obstacle by 40.1 % of business representatives, not far behind high taxes (49.3 %) and complicated tax laws (43.5 %). (United Nations Office on Drugs and Crime, 2013).

3. SMEs structure in WBCs

Over the last three years WBCs have registered moderate progress in several areas, including the institutional framework for SME policy, regulatory reform and administrative simplification, company registration, entrepreneurial learning and business start-up processes, etc. They have made significant progress in skills development and export promotion. On the other hand, on average, their performance on the provision of SME support services slightly deteriorated (SME Policy Index, 2012, p. 15). However, there are no comprehensive and comparable SME data for the whole WBCs, based on the EU definition of an SME.

Serbia had the highest number of SMEs 282,259 while Montenegro had the lowest number of SMEs 23,332. Albania had 68,984; Croatia 143,434 and FYR Macedonia 70,506. Micro-enterprises (less than 10 employees) account for an extremely large share of the registered enterprises ranking from 88.9% in Montenegro to 95.8% in Albania, 90.4% in Croatia and 95.9% in Serbia but their contribution in terms of employment is significantly lower, reflecting much lower productivity than in SME. The highest employment in the SME sector is in Serbia 787,580 of all employment jobs 1,194,429 which makes 65.9%. It is followed by Croatia 737,160 of all employment 1,097,543 with makes 81.8%. At least employment in SME sector is in Montenegro 123,738 of all employment 200,734 with means 61.6% and Albania with 169,010 of all employment 239,55 with makes 81.8%.

According to the Statistical Business Register in BiH, shows that micro enterprises create the largest share of the total number of classified enterprises, as much as (73.8%). Small enterprises create 18.8%, medium enterprises create 6.1%, while the share of large enterprises is only 0.9%. (Agency for Statistics of BiH, Sarajevo, September, 2013).

5. Concluding remarks and recommendations

After spending much of the 1990s mired in conflict, the WBC have experienced a transformation over the last 20 years. They have transitioned toward market-based systems, privatized many state owned enterprises, adopted modern banking systems, and enhanced the

external orientation of their economies. The result has been a significant catch-up in living standards relative to their neighbors in advanced European Union economies. However, the pace of structural reform has been disappointing.

The conducted research has shown that entrepreneurship and SMEs are now recognised by researchers and policymakers as central to economies across the world. The 20 million European (EU-27) SMEs (99,8%) play an important role in the European economy. These are mostly micro-enterprises and in 2012 employed approximately 86.8 million people. This represents 66.5% of all European jobs for that year. Micro-enterprises provide just under a third of that total employment figure. The SME sector as a whole delivered 57.6% of the gross value added generated by the private. In 2012, the 43,454 million European large enterprises (0,2%) employed 43,787,013 million people (33.5%) (EC, 2013).

However, their contribution to wealth creation, income generation, output and employment in WBCs is less than in developed countries. As the above discussion has demonstrated, the transition from plan to market based economy at the WBCs is extremely hard, with many external and internal barriers to the development of SMEs and entrepreneurship and with sharp fall in GDP combined with extremely high and increasing unemployment levels.

As we have shown, SMEs in WBCs can bring great economic benefit in terms of creating greater efficiency and increased economic development and share in the GDP and new jobs. The survey also found that the most number of SMEs had Serbia 282.259 or 98,8%, at least SMEs had Montenegro 23.332 or 99,6%. Also, Albania had 68.984 or 99,9%, Croatia 143.434 or 99,7%, FYR Macedonia 70.506 or 99,7%, and BiH 32.944 (without craft) or 91,1%. Otherwise, microenterprises (less than 10 employees) account for an extremely large share of the registered enterprises ranking from 73,8% in BiH and 88,9% in Montenegro to 92% in Albania, Croatia and Serbia but their contribution in terms of employment is notable lower, reflecting a much lower productivity than in SMEs.

According to the research results it is possible to conclude that the hypothesis set before this research are confirmed. This research has also shown that the business environment for SMEs in BiH, which is created by government is not stimulation, and that in recent years there is no positive progress in its improvement.

In general, employment rates in WBCs are very low compared to European standards, varying between 22 per cent in Kosovo and 57 per cent in Croatia. In BiH and in the FYR Macedonia 40 per cent of the working-age population is in employment. In all other countries the employment rate covers around 50 per cent, the only exception being Croatia. Inflows of External debt is highest in Croatia but also rising to dangerous levels in Serbia. In almost all WBCs low female participation is the factor that impinges markedly on overall employment rates. This paper aims to encourage and deepen understanding of the holder of the legislative and executive authorities and state institutions in BiH and WBCs for reform implementation in this sector, with the purpose of promoting growth and development of SMEs and employment increase. In order to encourage new employment and mitigate one of the biggest problems faced by WBCs, the problem of unemployment, it is necessary to encourage the development of SMEs, since it constitutes the largest share of total employment.

However, a key for the development of economy is not just in opening new businesses but also in their allocation between productive and non productive activities. Key role in the allocation of entrepreneurial activity, as well as its quality and long-term strategic direction, is precisely the development of institutional framework, which consists of formal and informal spheres. In order to increase the rate of entrepreneurship and SMEs, which will play a key role in the economic development of WBCs, not just political acters and creators of economic policies but citizens also

have to work on healing the historical wounds and pave ways for future coexistence of all citizens of WBCs.

We can conclude that business decision makers, as well as, governments at all levels in BiH have not implemented of the UNECE Strategy for SME Development. Also, they have not implemented the Entrepreneurship 2020 Action Plan. Action Plan is a blueprint for decisive action to unleash Europe's entrepreneurial potential, to remove existing obstacles and to revolutionise the culture of entrepreneurship in Europe. Investments in changing the public perception of entrepreneurs, in entrepreneurship education and to support groups that are underrepresented among entrepreneurs are indispensable if we want to create enduring change (EC, 2014).

References

1. Audretsch, D.B. and Thurik, A.R. (2001). *What's new about the new economy? Sources of growth in the managed and entrepreneurial economies*. INDUSTRIAL AND CORPORATE CHANGE, 10(1) 267–315.

2. Audretsch, D. 2011. *Entrepreneurship Policy, in World Encyclopedia of Entrepreneurship,* edited by L-P Dana. Cheltenham and Northampton MA: Edward Elgar, 111–121.

3. Bartlet, W, Popa A, Popovski, V. (2013): *Business Culture, Social Networks and SME Development in the EU Neighbourhood,* SEAECH; EU; FP7, WP5/18 SEARCH WORKING PAPER, London School of Economics and Political Science, London, pp 1-29 http://eww.lse.ac.uk/europeanInstitute/.../SEARCH-Project (accessed April 3, 2014).

4. Benšić M., Šarlija N. (2000): *Analiza utjecaja karakteristika poduzetnika na broj uposlenih u hrvatskim poduzećima*, EKONOMSKI PREGLED, 51, (11-12), pp. 101-115

5. Bobera D., Lekovic, B, (20013). *Barriers to innovation in AP Vojvodina - analysis of data and research findings from aspect of age and gender,* INTERDISCIPLINARY M ANAGEMENT RESEARCH IX, Faculty of Economics Osijek, Opatija pp. 57-67

6. De Soto, J.H. (2009): *The essence of the austrian school*, JOURNAL COMPILATION, Institute of Economic Affairs 2009. Published by Blackwell Publishing, Oxford, pp. 42-45

7. Džafić, Z., Rovčanin, A., (2009), *"The Role of Small and Medium sized Enterprises in the Process of Transitional countries Development: Case of Bosnia and Herzegovina"*,The International Conference for Entrepreneurship, Innovative and Regional Development - ICEIRD", Thessaloniki, Greece, Apr 24, 25, 2009, http://www.wikicfp.com/cfp/servlet/event. (accessed April 28, 2010).

8. Džafić, Z., Zahirović, S., Okičić, J., Kozaric, A., (2011), *Internal and External Obstacless to the Development of SMEs in Bosnia and Hercegovina,* CROATIAN ECONOMIC SURVAY, The Institute of Economics, Zagreb, Vol. 13, No 1. April 2011, pp. 143 – 171. http://www.hrcak.srce.hr/file/100577 (accessed April 20, 2014).

9. Gruda, Servete and Lindita Millo, 2010, *"SMEs development and competition policy in Albania, Economics Scholl Tirana"*, The Institute for CEE and the Balkans, School of Economics Tirana University http://www.iecob.net/main/pecobs-papers-series/257-smes-development- and-competition-policy-in-albania (accessed April 3,2010).

10. Europian Commission (2013). SME Performance Review, Annual Report of SME in EU, Bruxelles, http://www.ec.europa.**eu**/.../**sme**/.../**performance-review**/index_e. (accessed 3.04. 2014).

11. Europian Commission (2013). *European Union, Trade in goods with Western Balkans* http://trade.ec.europa.eu/doclib/docs/2006/ (accessed 15.04. 2014)

12. Balkaninsight (2014). *Bosnia Has Worst GDP in Europe, Eurostat Says* http://www.balkaninsight.com/en/article/bosnian-gdp-lowest-in-europe (accessed 15.04. 2014)

13. Hashi, Irai., 2010, *Financial and institutional Barriers for SMEs Growth in Albania,* BUSINESS ECONOMIC, Vol.11, No. 2.

14. Hasić D. (2006): *Potencijali malih i srednjih poduzeća: izvor ekonomskog progresa Bosne i Hercegovine*, EKONOMSKI PREGLED, 57 (3-4), pp.243-258

15. International Monetary Fund, 2015. The western Balkans : 15 years of economic transition.– Washington, D.C. (Regional economic issues special report, Murgasova, Z at all. http://www.imf.org/external /pubs/ ft/reo/2015/eur/eng/ (accessed 14.07. 2015)

16. Karić, A (2011): *Role of the state in development of SMEs in the world and in Serbia,* International Conference „SME – Posibilities and Perspectives 2011“ International University of Novi Pazar, pp. 735-751

17. Kersan –Škabić I., Banković M. (2008): *Small enteprises in Croatia and EU entrance,* Ekonomska misao i praksa, No.1, pp. 57-72

18. Kessler, A. (2007) *Success factors for new businesses in Austria and the Czech Republic,* ENTREPRENEURSHIP & REGIONAL DEVELOPMENT, 19, Routledge, 381–403

19. Korunka, C at all,(2010): *Personal characteristics, resources, and envlronnient as predictors of business survival,* JOURNAL OF OCCUPATIONAL AND ORGANIZATIONAL PSYCHOLOGY, No 83. 1025-1051

20. Kumar, S. & Liu, D. (2005). *Impact of globalization on entrepreneurial enterprises in the world markets*, International Journal of Management and Enterprise Development, 2, 46–64.

21. Lazarevski, D, Mrsik, J., Smokvarski, E (2012): *Evolution of the venture capital financing for growing small and medium enterprises in Central and Eastern Europe countries: the case of Macedonia.* ENTREPRENEURSHIP & FINANCE EJOURNAL , Vol. 7, No. 47 http://mpra.ub.uni-muenchen.de/41997/ (accessed April 15, 2014).

22. Mamić –Sačer I., Sever S., Oluić A. (2008): *Analiza mogućnosti primjene MSFI-a za mala i srednja poduzeća,* EKONOMSKI PREGLED, 59 (3-4), pp. 103-118

23. Pere E, and Hashorova A. (2013): *Business regulation and economic growth in the Western Balkan countries,* EASTERN JOURNAL OF EUROPEAN STUDIES Volume 4, Iss. 1, pp 6.

24. Pinto, Ricardo et al., 2007, *Small Enterprise Development in the Republic of Macedonia*. Hamburg: European Agency for Reconstruction. http://pintoconsulting.blog385.com/eng/ (accessed May 13, 2010)

25. SME Policy Index, (2012), Wertern Balkans and Turky, July http://ww.oecd-ilibrary.org/industry/books/ (accessed May 13, 2013)

26. Stevenson, L. and Lundström, A. (2001): *Entrepreneurship Policy for the Future*, Volume 3. Patterns and Trends in Entrepreneurship/SME Policy and Practice in Ten Economies. Stockholm: Swedish Foundation for Small Business Research.

27. World Bank, (2014): Doing business, Comparing Business Regulations for Domestik Firm in 189 Economies, 11th Edition http://www.doingbusiness.org/~/media/GIAWB/ (8.04.2014)

28. Turčić I., Hunjet D. (2002): *Neke osnovne strukturne karakteristike po oblicima vlasništva i strukture poduzeća iposlovanja gospodarstva Hrvatske u godini 2000*., EKONOMSKI PREGLED, 53 (1-2), pp. 49-66

29. Thurik, R. and Wennekers, S. (2004) "*Entrepreneurship, small business and economic growth*", Journal of Small Business and Enterprise Development, 11(1): 140-9

30. Wickham, A., P. (2006): *Strategic Entrepreneurship*, Fourth Edition, Prentice Hall, Esses, England

31. Pere E, and Hashorova A. (2013): *Business regulation and economic growth in the Western Balkan countries*, EASTERN JOURNAL OF EUROPEAN STUDIES Volume 4, Issue 1, June, pp. 5-15.

32. Foreign Investment Advisory Service (2001) "*BiH Commercial Legal Framework and Administrative Barriers to Investment*", IFC/WB, Sarajevo.

33. Organisation for Economic Co-operation and Development (OECD) 2011. Entrepreneurship at a Glance 2011. Paris: Organization for Economic Co-operation and Development Publishing.

34. OECD, (2010): *SMEs and Entrepreneurship and Innovation, OECD Studies on SMEs and Entrepreneurship.* http://www.oecd.org/publishing/corrigenda (accessed April 8 , 2014)

35. OECD, (2003): *BiH - enterprise policy performance assessment, stability pact.* http://www.oecd.org/countries/.pdf (accessed April 7, 2014)

36. Robert A., B. and Michael T., S. (2012): *Government, SMEs and Entrepreneurship Development: Policy, Practice and Challenges*, GOWER, GB

37. Fink, M., Harms,R., Kraus, S. (2008): *Cooperative internationalization of SMEs:Self-commitment as a success factor for International Entrepreneurship*, EUROPEAN MANAGEMENT JOURNAL No 26, 429– 440

38. Leitner, K-H and Güldenberg. S. (2010): *Generic strategies and firm performance in SMEs: a longitudinal study of Austrian SMEs*, SMALL BUS ECON, 35:169–189

39. Copeland, P., Scot, J. (2013*): Policy windows, ambiguity and Commission entrepreneurship : explaining the relaunch of the European Union's economic reform*, Agenda, JOURNAL OF EUROPEAN PUBLIC POLICY, Routledge, London, 1-21 http://dx.doi.org/10.1080/13501763.2013.800789

40. UNECE (2011), The UNECE Report, Millennium Development Goals in Europe and Central Asia, New York and Geneva, pag 6.

41. United Nations Office on Drugs and Crime (2013*). Business, Corruption and Crime in the Western Balkans: the impact of bribery and other crime on private enterprise*. Vienna. Available from: http://www.unvienna.org/unov/en/unodc. (Accessed 26 October 2014)

42. United Nations Economics Commission for Europe, 2006, *Series Entrepreneurship and SMEs*, New York and Geneve, http://www.insme.org/documents/Small and Medium-Sized Enterprises in Countries in Transition.pdf (accessed June 4, 2012).

43. World Economic Forum, 2007 – 2014, *The Global Competitiveness Report, Index of Economic Freedom*, Geneva, http://www.weforum.org/reports/global-competitiveness-report-2013-2014 (accessed April 4, 2014).

44. World Bank and IFC, 2007 - 2014, "*Doing Business, Making a Difference for Entrepreneur*", Report of World Bank and IFC, http://www.doingbusiness.org/Rankings, (accessed April 15, 2014)

45. van Praag, C.M. and Versloot, P.H. 2007. What is the value of entrepreneurship? A review of recent research. Small Business Economics, 29(4), 351–382.

CONTRIBUTION OF ENTREPRENEURSHIP TO ECONOMIC GROWTH OF SOUTHEAST EUROPEAN COUNTRIES

Maja Ivanović-Djukić[172],

Suzana Stefanović,

Jovo Ateljević[173],

Vinko Lepojević

Abstract:

The global economic crisis has led to stagnation in economic growth in most world countries. One of the ways that can bring the revival of economic activity is to encourage the development of entrepreneurship. However, research has shown that the contribution of entrepreneurship to economic growth can vary in countries at different stages of development. What is more, there is no empirical evidence of a statistically significant correlation between entrepreneurship and economic growth in developing countries, characterized by a low level of development. Furthermore, different types of entrepreneurship can differently affect economic growth. This paper will examine the existence and the way in which entrepreneurship impact on economic growth in developing countries, with special emphasis on the countries of Southeast Europe, which, based on the indicator GDPPC, mainly belong to the group of underdeveloped countries. In addition, the paper will, from the standpoint of the motives and aspirations for starting entrepreneurial activity, test the impact of different types of entrepreneurship on economic growth in SEE countries, through a comparative analysis with the selected group of developed countries. Previous studies suggest that, in developed countries, an important contribution to economic growth can be made by the so-called high-growth expectation entrepreneurs (as designated in the GEM methodology), i.e. the so-called "gazelles", while this effect is absent in less developed countries, such as most countries in the SEE region. At the same time, in underdeveloped countries, necessity-based entrepreneurship is the dominant form of entrepreneurship, while the presence of opportunity-based entrepreneurship and especially high-growth expectation entrepreneurship is much lower. The subject of this study will be to examine the importance of entrepreneurship, and analyze the impact of different types of entrepreneurship on economic growth in the countries of Southeast Europe. The aim of the paper is to examine whether there are differences in the impact of certain types of entrepreneurship on economic growth of countries with different levels of development, and propose measures that macroeconomic policy makers could implement in order to achieve maximum effects in the economic growth of the countries of Southeast Europe. The starting hypothesis of the paper is that entrepreneurship has a positive impact on economic growth in the countries of Southeast Europe, but that this effect is lower than in developed countries, due to the different structure of entrepreneurial activity. To test the validity of the above hypothesis, the analysis will first focus on the correlation between total entrepreneurial activity (TEA) (on the basis of the GEM report) and economic growth (economic growth will be evaluated in the context of the GDP growth rate, and from the standpoint of reducing the unemployment rate, given that entrepreneurship contributes to the creation of new jobs) in the countries of Southeast Europe. Then, through a comparative analysis of the selected developed countries with the countries of Southeast Europe, the impact of different types of entrepreneurship on economic growth of the above group of countries in the period from 2007 to 2014 will be analyzed. The analysis will rely on the methods of descriptive statistics, correlation analysis, and regression analysis. The analysis will be carried out by using the SPSS software. The analysis will use the results on the state of entrepreneurship across countries, published in the Global Entrepreneurship Monitor reports, whereas the data on the GDP growth rates and unemployment will arise from the information provided by organizations such as the World Bank. The contribution of our work is that it will try to clarify the relationship between entrepreneurship and economic growth in the countries with low level of development. The originality of the work is that the analysis will be carried out dynamically (over a longer period of time), based on a sample of the SEE countries, while previous research has mainly been conducted over shorter periods (1, 2, or 3 years), so that

[172] Faculty of Economics, University of Nis, Trg Kralja Aleksandra 11, Nis, Serbia
maja.djukic@eknfak.ni.ac.rs, suzana.stefanovic@eknfak.ni.ac.rs, vinko.lepojevic@eknfak.ni.ac.rs
[173] Faculty of Economics, University of Banja Luka, BiH
jovo.ateljevic@efbl.org

the effects of "lag", i.e. delayed effect of the selected indicators could mainly not be seen. The contribution of our work also lies is in the fact that the analysis is carried out on the basis of total entrepreneurial activity (early-stage and established - TEA+EBO), while previous research has mainly used data on total early-stage entrepreneurial activity (TEA).

***Key words**: economic growth, entrepreneurship, unemployment, developed countries, the countries of Southeast Europe.*

1. Introduction

Economic growth is one of the most extensively studied macroeconomic phenomena in the economic literature. How to stir economic growth and what are the drivers of growth are the issues that a large number of economists are trying to answer. In the early 20th century, it was believed that the key drivers of economic growth are large enterprises, because they took advantage of the effects of economies of scale and scope, so they were very efficient, generating huge profits and employing large numbers of people (Burns, 2011, p. 516). Therefore, most developed economies paid great attention to the development of large enterprises, while small and medium-sized enterprises and entrepreneurs were considered remnants of the past, which hindered economic growth (Paunović, 2012, p. 54).

However, in the 1970s, a number of large companies were affected by serious economic difficulties. Faced with intensified global competition, increasing market fragmentation, technological advances, and other changes that increased market dynamism and uncertainty, large companies faced a number of problems. It turned out that large organizational systems were inflexible, slowly adapting to new market conditions. In contrast, SMEEs were much more successful in coping with the new reality (Sorin-George Grigore and Marinescu, 2014, pp. 236-243). As a result, an increasing number of scholarly papers appeared, pointing to the importance of SMEEs, and politicians, Ronald Reagan in the USA and Margaret Thatcher in Great Britain, focused on a policy which strongly encouraged the advancement of small business and entrepreneurship. Consequently, the rapid development of this sector ensued, which stirred the economy and gained increasing share in economic activities (Cornelius, Landströmand and Persson, 2006, pp. 375–398).

Rising share of SMEEs in the economic activity in most developed countries of the world has led to a change of economists' perception regarding the drivers of economic growth. They started devoting considerable attention to analyzing the phenomenon of entrepreneurship and its links with economic growth. What is more, there is a number of empirical studies, demonstrating the positive impact of entrepreneurship on economic growth (Valliere and Peterson, 2009, pp. 459–480).

Unlike developed countries, in respect of which, today, there is strong empirical evidence that the development of entrepreneurial activity has a significant impact on economic growth, in developing countries, there is a number of contradictions and dilemmas regarding the relationship between entrepreneurship and economic growth. First of all, economic literature has given rise to controversial studies on the contribution of entrepreneurship to economic growth in developing countries. Although theorists emphasize that the contribution of entrepreneurship to economic growth in developing countries is also large, there is no empirical evidence to confirm these theoretical assumptions. In other words, Schumpeter's view that entrepreneurship is the main driver of economic growth has not been empirically proven in developing countries. As Koster and Kumar Rai (2008, p. 132) say: "It is still very much an open question whether entrepreneurship has the same positive role in developing countries as it has in developed world". Empirically, the impact of entrepreneurship on the development of low-income countries still remains to be determined (Sautet, 2013, pp. 387-402).

A lot of scholars explain different impact of entrepreneurship on economic growth in developed and developing countries by the characteristics of the macroeconomic environment in less developed countries (compared with developed countries), the presence of the gray economy and informal entrepreneurship, etc. (Sabbella, Wojdan, Burbar and Qaimary, 2014). Furthermore, some studies suggest that different impact of entrepreneurship on economic growth in developing countries may, to some extent, be caused by the different structure of entrepreneurial activity that is present in the above groups of countries (Valliere and Peterson, 2009, pp. 459–480; Wong, Ho and Autio, 2005, pp. 335-350).

Given these and other unresolved dilemmas, the impact of entrepreneurship on economic growth in developing countries is still not completely clear and is subject to a large number of empirical studies. The subject of this work will also be an empirical study of the relationship between the total entrepreneurial activity and economic growth in Southeast Europe, as well as a comparative analysis of the impact of different types of entrepreneurship on economic growth in the above-mentioned group of countries and the selected group of developed countries in the EU. The aim of the study is to identify the types of entrepreneurial activities and elements of the macroeconomic environment that have the greatest impact on economic growth, and propose measures to encourage their development, in order to increase the economic growth rate in Southeast Europe. The SEE region has been chosen because it involves Serbia, and comprises (with the exception of Slovenia and Greece) underdeveloped countries. It is also the region where most of the countries passed or are passing through a period of transition. A comparative analysis of the countries of Southeast Europe with the selected countries of the European Union will be carried out to identify good practice in the field of entrepreneurship, which can serve as a model for creating incentives for the development of entrepreneurship in Southeast European countries, so that they could, in the foreseeable future, reach economic growth recorded in developed countries. Our starting hypothesis is that entrepreneurial development, together with appropriate structure of entrepreneurial activity, can significantly contribute to the economic growth of the countries of Southeast Europe, and developing countries in general.

The paper will first give an overview of literature that links entrepreneurship with economic growth. The second part of the paper will present the starting hypotheses and describe models that will be used to check their validity. The third part will explain the methodology and present the results obtained. The fourth section will focus on the discussion of results. The final part of the paper will present conclusions and recommendations to macroeconomic policy makers.

2. Overview of literature

Entrepreneurship is one of the key drivers of economic growth. It contributes to increasing economic stability and sustainable economic development, by creating new jobs (Belka, 1995; Richter and Schaffer, 1996; Sexton and Landstrom, 2000), a varied offer of products to customers (Berkowitz and DeJong, 2001), rise in GDP, poverty reduction, and ensuring the welfare of the whole society in the long term (Berkowitz and DeJong, 2001; Ateljević et al., 2015).

In developed countries, a number of studies have been conducted on the relationship between entrepreneurship and economic growth. Thus, for example, a study of thirteen developed European countries, conducted by Carree and Thurik (1998, pp. 137-146), points to the fact that the economies with greater share of entrepreneurial activity have higher growth rates, compared to the ones with a smaller share of entrepreneurial activity. In subsequent studies (2003, pp. 437-471; 2005, pp. 311-321), the same researchers prove that entrepreneurial activity contributes to increasing economic productivity and improving national competitiveness. Acs and Varga (2005, pp. 323-334), based on a sample of 11 developed countries, find that entrepreneurship has a positive and statistically significant impact on economic growth, due to the effect of knowledge spillover, which is generated during growth. Wong, Ho, and Autio (2005, pp. 335-350) point to similar conclusions, claiming that business creativity and innovation, characteristic of SMEEs, have great significance for the economic growth in developed countries. Naude (2008, pp. 961-975) prove that entrepreneurship has a positive impact on the economy, because it contributes to increasing employment and intensifying competition. Valliere and Peterson (2009, pp. 459-480) use methods of regression and correlation analysis, and, based on a sample of 24 developed countries, prove that there is a positive and statistically significant correlation between entrepreneurship and economic growth rates in developed countries. It should be noted here that a large number of studies show that the largest contribution to economic growth in developed countries comes from fast growing

companies, the so-called “gazelles”, i.e. high-growth expectation entrepreneurship (Harrison, 1994, pp. 142-158; Wong, Ho and Autio, 2005, pp. 335-350; Moreno and Casillas, 2007, pp. 69-88; Valliere and Peterson 2009, pp. 459–480).

When it comes to developing countries and transition economies, there is also some scholarly articles, pointing to the importance of entrepreneurship for economic growth (Stefanović, Ivanović-Đukić and Janković-Milić, 2013, pp. 346-363). Entrepreneurship is important for transition economies because it encourages economic development by creating an open competitive market (Megginson and Netter, 2001, pp. 321-339), and contributes to limiting the market power of public enterprises (McMillian and Woodruff, 2002, pp. 153-170). The particular importance of small enterprises and entrepreneurs in developing countries lies in the fact that they are very dynamic, quick to learn, and rapidly change (Čučković and Bartlett, 2007, pp. 37-56), which increases their competitiveness, as well as the competitiveness of the entire economy (Carlin, 2001, p. 4). However, although there is a large number of works, which, based on substantiated theoretical explanations, prove the importance of entrepreneurship for economic growth, solid empirical evidence that this bond is present and significant is still missing. What is more, there are several claims that there is no connection or that there is a negative correlation between entrepreneurship and economic growth. Thus, for example, a study by Tang and Koveos (2004, pp. 161-171), which examines two different types of entrepreneurship, “venture” entrepreneurship and innovative entrepreneurship, points to the fact that, in countries with low level of development, there is a negative correlation between entrepreneurship and economic growth. The regression analysis by Sabel et al. (2014), conducted in Palestine, confirms that entrepreneurship (measured by the rate of business start-ups), among other things, has a positive effect on the GDP growth rate. However, this correlation is not statistically significant. Furthermore, research conducted by Valliere and Peterson (2009, pp. 459-480), based on a sample of 20 developing countries, does not confirm that entrepreneurship significantly affects economic growth, and they conclude that developing countries need to reach a certain development threshold so that entrepreneurship could make its full contribution to economic growth.

Therefore, previous research shows that entrepreneurial activity and its contribution to economic growth vary among countries with respect to GDP, as well as in accordance with the stages of economic development in the regions within the country. The relationship between the total early-stage entrepreneurial activity rate in certain countries and their national per capita income usually appears as a curve in the shape of the letter U. The countries with low income per capita have high total early-stage entrepreneurial activity rate, as well as countries with high income per capita, whereas countries between them have lower total early-stage entrepreneurial activity rate (Carree et al. 2007, pp. 281-291). What is more, in less developed countries, the contribution of entrepreneurship to economic growth significantly differs, compared to the contribution of entrepreneurship to economic growth in countries with higher levels of development (Valliere and Peterson, 2009, pp. 459–480).

One of the possible explanations of different impact of entrepreneurship on economic growth lies in the characteristics of the macroeconomic environment. Unlike countries with high levels of national income, developed market, and regulated legal environment, in developing countries and transition countries, the situation is completely different. For example, most countries in transition face a large number of problems (presence of gray economy, corruption, unfair competition, non-incentive tax system, discriminatory legislation, and so on), unstable legal and political system, underdeveloped market economy mechanisms, which hinder the development of entrepreneurship and produce different effects on economic growth, compared to developed countries (Bartlett and Bukvić, 2001, pp. 177-195; Čučković and Bartlett, 2007, pp. 37-56). At the same time, developing countries are characterized by the dominance of entrepreneurship in low-productive activities, so that it does not produce adequate returns, commensurate with those achieved in developed countries

(Acs, Desai and Klapper, 2008). This, on the one hand, results in lower contribution to economic growth, while at the same time discourages potential entrepreneurs to start their own business. In addition, both groups of countries are characterized by the presence of the informal (gray) market, so that entrepreneurs are more focused on exploiting opportunities arising as a result of inefficiently established "*de jure*" economic systems, than on launching and developing legal entrepreneurial organizations. If one adds to this the fact that the mortality rate of business start-ups is higher in developing countries, and that even businesses that survive the initial failures grow much slower than businesses developed countries, it is logical that the effects on economic growth are lower (Sautet, 2013, pp. 387-402).

In addition to the macroeconomic environment, the differences in the contribution of entrepreneurship to economic growth may be affected by different structures of entrepreneurial activity, i.e. different types of entrepreneurship. Literature has given rise to a large number of classifications of entrepreneurship, based on a number of existing theoretical approaches. Carree and Thurik (2003) provide an interesting classification of entrepreneurship, distinguishing among entrepreneurship in Schumpeter's (innovative), Kirzner's (entrepreneurship based on opportunities), and Knight's (entrepreneurship based on different growth expectations and associated risks) sense. Commonly cited classification of the types of entrepreneurship is the one based on the motives that drive people to start a business, there being mainly two dominant reasons or motives that drive individuals into start-ups, namely: use of the opportunities and necessity. This classification has also been accepted in the GEM research. In this regard, there are 2 different types of entrepreneurship. Opportunity-driven entrepreneurship activity (OEA) includes all start-ups and newly established businesses (younger than 42 months), which emerge as a result of perceived business market opportunities. Necessity-driven entrepreneurship activity (NEA) occurs in a situation where individuals perceive entrepreneurship as a last resort and start a business because they either do not have other employment options, or such options are unsatisfactory (Singer, Amoros and Moska, 2014).

This distinction has been made to explain the paradoxically high levels of entrepreneurship in developing countries, defined under the GEM project. It has been shown that the greater the poverty, the greater the level of necessity-based entrepreneurship. Higher number of entrepreneurs entering into business out of necessity results in high rates of entrepreneurial activity. As the level of development of a country increases, the share of necessity entrepreneurship decreases and opportunity entrepreneurship increases.

"The theory of necessity" can explain the high levels of entrepreneurship in developing countries. The basic idea is that people from the poorest developing countries, driven by poverty, survival, and lack of business choices, are forced to start their businesses. In contrast, in developed countries, individuals have much more alternatives to ensure a source of income, so that they are not forced to start business at any cost, and enter entrepreneurial ventures only if they recognize market opportunities or have new original ideas and concepts (Serwanga and Rooks, 2013).

If one starts from the assumption that entrepreneurship contributes to economic development (as is the case in developed countries), and bears in mind a large number of new businesses in developing countries, it is logical to conclude that entrepreneurial activity has a significant impact on the GDP growth rate. However, this has not been proven yet. This can be explained by the fact that necessity entrepreneurship has a much lower contribution to economic growth, compared to other forms of entrepreneurship, as proven by numerous studies (Poschke, 2013, pp. 658-663; Acs and Varga, 2005, pp. 323-334; Fritsch, 2007, pp. 1-14). First of all, necessity entrepreneurship is largely present among the self-employed persons (defined as those who work for themselves), which increases the probability that the firm has no employees. Even if the self-employed have other employees, their number is, in case of necessity entrepreneurship, by about 3.2 times lower

than the average number of employees in entrepreneurial organizations (9.6 employees). It is economically very important, because it affects the employment rate and value added (Poschke, 2013, pp. 58-63). Furthermore, research shows that necessity entrepreneurship does not create knowledge that leads to the development of the business, so that it has a much lower contribution to economic growth, compared to other types of entrepreneurship (Acs and Varga, 2005). Moreover, Acs et al. (2008) conclude that higher level of necessity entrepreneurship may have a negative effect on the economic growth of the country, while opportunity entrepreneurship has a significant, positive effect on economic performance. Similarly, Valliere and Peterson (2009, pp. 459-480) show that the contribution of opportunity entrepreneurship to economic growth does not differ much among countries, while the U-shaped curve, which graphically shows that relationship, can be attributed to the high prevalence of necessity entrepreneurs in developing countries.

Despite the fact that a large number of papers and empirical studies point to this conclusion, it faces a certain amount of criticism. First of all, some authors suggest that this view is too simplistic (Rosa et al., 2006, p. 1-13), because there is a variety of motives that drive individuals to start a business, i.e. necessity and opportunities are only part of a broader debate about what motivates business start-ups. Furthermore, GEM notes some other classifications of entrepreneurial activity as well. Thus, for example, there is the classification of entrepreneurial activity on the basis of growth expectations, and all entrepreneurs are divided into three groups: entrepreneurs with low, medium, and high growth expectations (Singer, Amoros and Moska, 2014). Previous research suggests that fast-growing companies (established by entrepreneurs with high growth expectations) make the greatest contribution to economic growth in developed countries (Stel and Storey, 2002; Autio, 2005, pp. 335-350). High growth of HEA, i.e. “gazelles”, can have a very significant impact on economic growth, by improving the dissemination of knowledge and GDP growth (Autio, 2005; Wong, Ho and Autio, 2005). Valliere and Peterson (2009, pp. 459-480) point to similar conclusions, proving that great contribution of early-stage entrepreneurship to economic growth can be attributed to the high prevalence of entrepreneurs with high expectations. This suggests that, when analyzing the impact of types of entrepreneurship on economic growth, one must take into consideration the impact of high-expectation entrepreneurship.

Therefore, based on previous research, it can be concluded that the significant contribution of early-stage entrepreneurship to economic growth in developed countries is affected by a large share of fast-growing companies, while the lower contribution of entrepreneurship to economic growth in developing countries results from the dominance of necessity entrepreneurship (Autio 2005; McDonald, Tsagdis and Huang 2006, pp. 525-542; Moreno and Casillas, 2007, pp. 69-88; Valliere and Peterson 2009, pp. 459-480).

In contrast to the conclusion that the fast-growing firms have a significant impact on economic growth in developed countries, which is proven by a large number of empirical studies (Valliere and Peterson, 2009, pp. 459-480; Autio, 2005; Wong, Ho and Autio 2005), the dominance of necessity entrepreneurship, as the reason for the lower contribution of entrepreneurial activity to economic growth in less developed countries, is an unproven assumption. Its relativity is affected by a number of other assumptions, which have been proven to be inaccurate. Thus, for example, companies run by entrepreneurs out of necessity, which are on average smaller and have lower growth expectations, are assumed to exist shorter. However, it has been proven that this is not true. The average age of the firms run by entrepreneurs out of necessity is not statistically significantly different in comparison to other firms (the survival rates are similar). This suggests that, although some entrepreneurs start their business out of necessity as a temporary solution, and reject it as soon as they find a better chance, a much larger number of them remain in business as long as with other companies, which may have a significant contribution to employment and addressing social problems (if the share of these entrepreneurs is high). This points to the fact that the impact of entrepreneurship on economic growth should be seen in the long run (not just in the early stages). Limitations of the majority of previously conducted studies are related to the short observation

period (usually 1, 2, or 3 years). Short-term analysis may set aside the consideration of the effects of "lag", which only occur over a longer period of time (Valliere and Peterson, 2009, pp. 459-480).

Moreover, most previous studies observe only the impact of entrepreneurial activity in the early stage, without taking into account the impact of entrepreneurship in developed stages. According to Singer, Amoros and Moska (2014), early-stage entrepreneurial activity (in the first 42 months) primarily affects the dynamism and innovativeness of the economy, while established businesses (SMEs), with their owners and managers, given the accumulated knowledge and experience and the accumulated social capital (established relationships, trust, reputation), contribute to increasing employment and economic development. GEM research shows that the presence of later-stage entrepreneurship (after 42 months), in the form of ownership over the existing SMEs increases with the degree of economic development (Singer, Amoros and Moska, 2014). Therefore, unlike TEA rates, which tend to be high in developing economies, EBO (established business ownership rate, as designated in GEM) is often low in them, while, in developed countries, the situation is the opposite (Singer, Amoros and Moska, 2014). It may also be one of the reasons for the different impact of entrepreneurial activity on economic growth in countries with different levels of development. What is more, research conducted in countries in transition confirms that, in these countries, there is a large number of start-ups, but, because of the presence of a large number of barriers, they cannot develop (Bartlett and Bukvic, 2001, pp. 177-195).

3. Model and hypotheses

Thus, previous research suggests that entrepreneurial activity can have different effects on economic growth in developed and developing countries. The reason for this lies in the fact that economic growth can be driven by varying factors in developing and developed countries, and that it may be affected by the conditions that affect the development and structure of entrepreneurial activity at the national and regional level. In addition, the number and economic role of different types of entrepreneurs may vary in different countries and have different effects on economic growth in both developed and developing countries. For example, necessity entrepreneurship in developing countries can be primarily manifested in the form of basic subsistence activities (non-market agriculture, individual job replacement, "mom & pop" firms, etc.), while in developed countries, it can predominantly occur in the form of individual self-actualization – decision on self-employment in order to achieve personal non-economic objectives (Valliere and Peterson, 2009, pp. 459-480). In the countries of Southeast Europe (as well as in developing countries in general), entrepreneurs largely depend on the development-oriented international financial institutions, which provide them with legitimacy on the international market and risk-sharing, although this dependence carries the risk of excessive bureaucracy and political interference (Bartlett and Bukvic, 2001, pp. 69-88). What is more, entrepreneurship in the countries of the region can be distinguished from entrepreneurship in developed countries due to the effects of privatization and market liberalization. Privatization and the resulting transformation of state-owned enterprises are a significant component of entrepreneurial activity in many countries of the region (Belka, 1995; Carlin, 2001), which is particularly susceptible to the agency problem, with pronounced differences between entrepreneurs and managers. However, despite all the problems which entrepreneurship in Southeast Europe faces, an enormous share of SMEEs in total economic activity points to the fact that entrepreneurship positively affects the economic growth in this group of countries.

Based on what has been noted so far, the starting hypothesis of the work is that entrepreneurship has a positive impact on economic growth in the countries of Southeast Europe, but that this impact is lower in comparison with the selected developed countries in the EU, given the different structure of entrepreneurial activity.

To operationalize the proving of the starting hypothesis, it has been decomposed into the following sub-hypotheses:

H1: Entrepreneurial activity significantly contributes to economic growth (measured by the GDP growth rate and the unemployment rate), both in developed and underdeveloped countries of Southeast Europe.

H2: The contribution of entrepreneurship to economic growth in underdeveloped countries of Southeast Europe is different, compared to developed countries, given the different structure of entrepreneurial activity, i.e. the effects of different types of entrepreneurship on economic growth.

H3: The characteristics of the macroeconomic environment, essential for the development of entrepreneurship, in addition to various types of entrepreneurship in developed countries and underdeveloped countries of Southeast Europe, have a significant impact on economic growth in these countries.

For the purposes of proving the above-stated hypotheses, i.e. examining the nature of the connection between economic growth (as measured by the GDP growth rate and the unemployment rate), on the one hand, and entrepreneurship, on the other hand, as well as verifying the hypothesis that the correlation between these phenomena differs significantly between developing countries in Southeast Europe and developed EU countries, the following dependent and independent variables are introduced:

Dependent variables: GDP growth rate and unemployment rate.

Independent variables: Opportunity-Driven Entrepreneurial Activity (OEA), Necessity-Driven Entrepreneurial Activity (NEA), Growth Expecation early-stage Entrepreneurial Activity (GEEA), Total early-stage Entrepreneurial Activity (TEA), and Total Business Ownership (TBO).

Furthermore, in order to determine the impact of the macroeconomic environment factors, essential for the development of entrepreneurship, the following control variables are introduced: general characteristics of macroeconomic environment (GCME), characteristics of state institutions and policies (CSIP), and direct measures to support the development of entrepreneurship (DMSDE).

For the purpose of examining the nature of the connection between GDP growth rate and unemployment rate, on the one hand, and entrepreneurship, on the other hand, as well as to verify the hypothesis that the correlation between these phenomena differs significantly between developing countries and developed countries, hierarchical regression is used. The model includes, besides independent variables (GDPR and UR), five dependent and three control variables. The model attempts to predict changes in the dependent variables (GDP growth rate and change in the unemployment rate), related to the presence of different types of entrepreneurship, HEA, OEA, NEA, as well as the characteristics of the macroeconomic environment in underdeveloped countries of Southeast Europe and developed EU countries.

The analysis uses hierarchical multiple regression, entering independent variables into the equation in order chosen by the researchers, on the basis of theoretical knowledge. The variables, i.e. sets of variables are entered in steps, evaluating the contribution of each independent variable to the prediction of the dependent variable, while at the same time eliminating the effects of all previously entered variables. After entering all the variables, in the next step, the capacity of the entire model to predict the dependent variable as well as the relative contribution of each block of variables is evaluated.

The empirical aspect of this research is designed to explore the economic benefits at the national level, based on the data provided by the Global Entrepreneurship Monitor (GEM) program for the period from 2007 to 2014. The GEM data is observed especially in respect of developing countries, belonging to the region of Southeast Europe (a total of 6 countries with a GDP per capita of less than 20,000 US $, making all the countries in the SEE region, with the exception of Greece and Slovenia, as their GDP is greater than 20,000 US $, which puts them in the group of developed countries). Out of the group of SEE countries, the research does not take into consideration Montenegro, Albania, and Bulgaria, since GEM does not contain data on these countries). At the same time, 15 developed EU countries are observed as well (with GDP per capita greater than 20,000 US $). Data for all countries is analyzed for the period 2007-2014. As noted above, the dependent variables in the study are annual GDP growth rate and the unemployment rate by countries and by years, whose values are taken from the website of the World Bank. The level of national entrepreneurial activity (in the form of early-stage entrepreneurial activity (younger than 42 months), and the established entrepreneurial activity (existing SMEs older than 42 months) are included as an independent variable, and particularly operationalized through growth expectation entrepreneurial activity (GEEA), opportunity entrepreneurship activity (OEA), and necessity entrepreneurship activity (NEA), also by countries and years. This data is taken from the website of GEM. Other independent variables (control variables), which reflect the characteristics of the macroeconomic environment that contribute to the development of entrepreneurship, are projected on the basis of assessment of individual elements of the macroeconomic environment in the GEM report, by countries and years. The missing values for some of the indicators are estimated on the basis of the values of these indicators in previous years, or based on the value of a given indicator in similar countries in the region to whom the particular country belongs. In this regard, the analysis focuses on a sample of 168 combinations of countries and years.

Countries included in the study are given in the Table 1 given in Appendix.

4. Methodology of research

The study has two parts. First, the methods of correlation analysis are used to examine whether there is a statistically significant correlation between entrepreneurial activity and economic growth in the countries of Southeast Europe.

The second part of the study has two phases. First, principal component analysis is used to group, for research purposes, a number of independent variables suggested by GEM, with respect to the characteristics of the macroeconomic environment. Furthermore, hierarchical regression models are developed, in trying to predict the GDP growth rate and the unemployment rate.

To study the influence of the macroeconomic environment, the independent variables presented in Table 2 in Appendix are used.

Since the model includes too many independent variables with a limited amount of data available, principal component analysis is performed, to reduce the number of variables related to the characteristics of the macroeconomic environment. By using this method, 12 indicators that evaluate the characteristics of the macroeconomic environment are grouped and reduced to 3 components. These three components explain over 70% of data variability. These are shown in the Table 3 in Appendix.

The first component refers to the general characteristics of the macroeconomic environment, which may indirectly affect entrepreneurial activity and its impact on economic growth. These

include the degree of involvement of knowledge and practices related to entrepreneurship in general education programs of one country, the possible transfer of ideas and knowledge to the SMEE sector, obtained through scientific research in the country, the characteristics of the national culture, economic dynamics, and legal infrastructure which, through property rights protection, affects the development of entrepreneurship. This component will be called the *general characteristics of the macroeconomic environment* (GCME).

The second component is related to institutions and government policies that directly affect the development of entrepreneurship. These include the characteristics of monetary and fiscal policy, which could have a stimulating or limiting impact on the establishment and development of SMEEs, as well as the existence of the state bureaucracy (the existence of regulations and procedures, including time and costs), relating to the establishment and development of SMEEs (such as time and costs of registering a new business, time and costs of obtaining various permits required for business development, etc.). This component will be called the *characteristics of state institutions and policies* (CSIP).

The third component includes direct measures to support the development of entrepreneurship. They include financial incentives (in the form of favorable sources of financing, subsidies, and other financial incentives) and various programs implemented by the state, aimed at the development of entrepreneurship (it could be the establishment of clusters, business incubators, technology parks, etc.). This component will be called *direct measures to support the development of entrepreneurship* (DMSDE).

5. Results and discussion

Table 4 gives elements of descriptive statistics in respect of variables used in the study. Data processing relies on the use of the SPSS statistical software (version 17.0). Based on these indicators, it is found that all the selected variables exhibit a high variability, suitable for research. Data are shown in Table 4 given in Appendix.

To compare the values of the observed indicators, the *t*-test is used, and the results are given in Table 5 in Appendix. By testing the significance of differences in the value of indicator between these two groups of countries, we come to the conclusion that there is a statistically significant difference (risk of error of 0.05) among all indicators, except for TBO.

By analyzing the interdependence of the selected variables, we find that, between GDPR and other independent variables in the case of the selected developed countries, there is no pronounced correlation, given that the values of Pearson's correlation coefficient are less than 0.30 (according to Cohen, 1988, pp. 79-81). In the case of the observed countries in Southeast Europe, there is also no pronounced correlation between GDPR and the observed independent variables, except in the case of the correlation between GDPR, on the one hand, and TBO and TEA, on the other hand. This means that there is a statistically significant correlation both between the early-stage and the total entrepreneurial activity (early and established) and economic growth in underdeveloped countries of Southeast Europe, i.e. that the total entrepreneurial activity contributes to economic growth, which is in line with part of our hypothesis H1. However, it is found that different types of entrepreneurship (OEA, NEA, and GEEA) do not have a statistically significant impact on the growth of GDPR, or, that this impact is even negative, which points to the fact that hypothesis H2 cannot be accepted, neither in terms of the observed developed countries, nor with respect to underdeveloped countries of Southeast Europe. Furthermore, the analyzed samples of developed and underdeveloped countries do not confirm statistically significant correlation between the impact of the factors of the macroeconomic environment (GCME, CSIP, and DMSDE) and

economic growth, as measured by GDP growth rates, which points to the fact that hypothesis H3 cannot be accepted in this respect either.

By observing the relationship between UR and independent variables, we find that, in the selected developed countries, there is a strong correlation, except in respect of TBO and TEA. So, there is a strong correlation between the unemployment rate and various macro-environment factors, as well as different types of entrepreneurship, which is in line with our hypotheses (H2 and H3). However, early-stage and total entrepreneurial activity appear to have no statistically significant impact on the unemployment rate, which might be conditioned more by employment in large enterprises.

Between UR and independent variables in the selected countries of Southeast Europe, there is a strong correlation in the case of relationship between UR and OEA and NEA (having the values -0.697 and 0.822, respectively), as well as GEEA (having the value -0.384), while between UR and TEA, GCME, and CSIP, there is no pronounced correlation. This shows that necessity entrepreneurship and opportunity entrepreneurship, as well as growth expectation entrepreneurship in less developed countries have higher impact on unemployment than on the GDP rate. This is in accordance with certain considerations that we mentioned in the theoretical part, that entrepreneurship, especially the one based on necessity, does not contribute so much to economic growth, as it does to other economic policy objectives, such as reducing unemployment. Furthermore, the total entrepreneurial activity (early and established) certainly contributes to a reduction in the unemployment rate, although there may not be enough new start-ups, which confirms our hypothesis about the positive impact of entrepreneurship on economic development by reducing the unemployment rate. Data are shown in Tables 6, 7, 8, and 9 in Appendix.

By checking the fulfillment of conditions for conducting regression analysis, we conclude that some serious problems appear in terms of confirming the starting hypothesis, related to multicollinearity, especially when analyzing the relationship between GDPR and the selected independent variables. By checking multicollinearity between the variables, we find a lack of correlation between the dependent variable and the part of independent variables, as already noted above. Through “collinearity diagnostics” of variables, based on SPSS procedure, using the values of Tolerance and VIF, we remove doubts about the existence of multicollinearity between the variables. By checking other assumptions, normality, linearity, homoscedasticity, independence of residuals, and the existence of atypical points, we come to the conclusion that these assumptions are not violated, and that it is possible to carry out the desired procedure of hierarchical multiple regression. The only problem, which has not been resolved in a satisfactory manner, is the size of the sample. In fact, there are different opinions related to the size of the sample that is necessary so that the results of multiple regression could be considered valid. According to one view (Stivens, 1996, p. 72), the recommended sample size in social sciences is 15 units per one independent variable. On the other hand, some authors (Tabachnick and Fidell, 2007, p. 123) advocate more rigorous conditions, considering that the sample size must be greater than the ratio 50 + 8m (where m is the number of independent variables), which is often not easy to meet. The volume of data at our disposal, which has been objectively imposed, is, according to both approaches, below the indicated minimum, so, in this part, we could not fully meet this assumption, which does not significantly diminish the validity of our results.

Table 10 Hierarchical regressions: dependent variable – GDP rate

	Developed countries				South-East Europe countries			
	Unstandardized Coefficients		Standa-rdized Coeffi-cients	Sig.	Unstandardized Coefficients		Standar-dized Coeffi-cients	Sig.
	B	Std. Error	Beta		B	Std. Error	Beta	
Constant	2.263	4.382		.607	-3.383	12.576		.789
GCME	.351	.455	.122	.442	-.198	1.591	-.031	.902
CSIP	-1.192	.532	-.388	.027	.452	1.406	.079	.749
DMSDE	1.571	.903	.265	.085	.858	2.386	.076	.721
OEA	.012	.033	.050	.704	-.061	.067	-.195	.366
NEA	-.063	.048	-.164	.192	-.069	.075	-.195	.364
GEEA	-.093	.039	-.253	.019	.096	.068	.293	.169
TEA	.118	.300	.077	.695	-.813	.618	-.554	.196
TBO	-.083	.137	-.115	.545	.676	.341	.792	.055

The established model, which describes the relationship between GDPR and other variables, in the case of the selected developed countries, explains only 15% of the total variability. The largest contribution to the change of GDPR is made by CSIP and DMSDE factors, which indicates that these control variables should not be excluded from the model. Out of the selected independent variables, the greatest contribution to the variation of GDPR is made by GEEA, and the impact of this variable on the dependent variable is statistically significant, at the 0.05 level, showing that if GEEA increases by 1, GDPR will decrease by 0.093%. This is, basically, an illogical result, because it shows that the rising growth expectation entrepreneurial activity has a negative impact on the GDP growth rate. A possible explanation is that, in times of crisis, there is no positive impact of the growth of "gazelles" on GDPR, which is more affected by other factors.

The mathematical model that describes the relationship between GDPR and the observed variables has the following form:

$$GDPR = 2.263 + 0.351 \cdot GCME - 1.192 \cdot CSIP + 1.571 \cdot DMSDE + 0.012 \cdot OEA - 0.063 \cdot NEA - 0.093 \cdot GEEA + 0.118 \cdot TEA - 0.083 \cdot TBO$$

In the case of the selected Southeast European countries, the selected regression model explains 22.3% of variability in GDPR, resulting from changes in the independent variable during the period 2007-2014. The largest contribution is made by TBO and TEA, which is understandable, given that TEA is an integral part of TBO. Additional major influence is exerted by GEEA, but it is not statistically significant. Statistically significant contribution is made by TBO, at the level of 0.1. Between GDPR and TEA, there is an inverse relationship.

An adequate mathematical model, which represents the relationship between GDPR and the selected variables, is given in the following form:

$$GDPR = -3.383 - 0.198 \cdot GCME0 + 0.452 \cdot CSIP + 0.858 \cdot DMSDE - 0.061 \cdot OEA - 0.069 \cdot NEA + 0.096 \cdot GEEA - 0.813 \cdot TEA + 0.676 \cdot TBO$$

Table 11 Model fitting measures

	Developed countries	South-East Europe countries
R	.387	.473
R Square	.150	.223
Sig.		

By observing the relationship between UR and the given variables, we find that, in the case of the developed countries, the selected regression model explains 48.2% of the total variability in the UR. In the case of the selected Southeast European countries, the regression model explains 87.2% of the variability in UR changes in the selected independent variables.

Table 12 Model fitting measures

	Developed countries	South-East Europe countries
R	.694	.912
R Square	.482	.872
Sig.	.000	

The largest contribution to the change in the unemployment rate in the given developed countries is made by TBO, TEA, OEA, and their impact on the UR is statistically significant at the 0.05 level. Changes in TBO result in changes in the UR in the same direction, while changes in the TEA and OEA lead to changes in the UR in the opposite direction. It is logical that total early-stage entrepreneurial activity, and opportunity entrepreneurial activity in developed countries lead to lower unemployment, but it is somewhat illogical that the increase in the total entrepreneurial activity (early and established) contributes to rising unemployment. A prolonged effect of the economic crisis is a possible explanation in this case.

In the surveyed countries of Southeast Europe, the biggest contribution to UR is made by NEA, TBO, and OEA. Increase in NEA by 1 results in increase in the UR by 0.458. Changes in TBO also have the effect of changes in the UR in the same direction, while changes in the OEA lead to change in the UR in the opposite direction. A possible explanation is that entrepreneurs entering into business out of necessity largely operate in the informal sector (gray economy), so that their contribution to reducing the unemployment rate is not significant. What is more, the same direction of the total entrepreneurial activity and unemployment rate shows that, in these countries, a significant number of entrepreneurs, especially those who operate longer, still operate in the gray zone and do not register workers, to avoid paying high taxes and contributions to the state.

Table 13 Hierarchical regressions: dependent variable – Unemployment rate

	Developed countries				South-East Europe countries			
	Unstandardized Coefficients		Standar-dized Coeffi-cients	Sig.	Unstandardized Coefficients		Standard-ized Coeffi-cients	Sig.
	B	Std. Error	Beta		B	Std. Error	Beta	
Constant	28.229	5.738		.000	6.308	14.741		.671
GCME	-1.301	.596	-.268	.031	.835	1.865	.051	.657
CSIP	.465	.697	.090	.506	-.428	1.648	-.030	.796
DMSDE	-.718	1.183	-.072	.545	-2.563	2.797	-.090	.365
OEA	-.141	.043	-.337	.001	-.195	.079	-.245	.018
NEA	.100	.063	.155	.116	.458	.088	.515	.000
GEEA	.054	.051	.087	.295	-.191	.080	-.232	.022
TEA	-1.332	.393	-.519	.001	-.376	.724	-.102	.606
TBO	.692	.179	.570	.000	.811	.400	.377	.049

The mathematical function that describes the relationship between UR and the selected variables in the selected developed countries has the following form:

$$UR = 28.229 - 1.301 \cdot GCME + 0.465 \cdot CSIP - 0.718 \cdot DMSDE - 0.141 \cdot OEA + 0.100 \cdot NEA + 0.054 \cdot GEEA - 1.332 \cdot TEA + 0.692 \cdot TBO$$

The mathematical model that describes the relationship between UR and the observed variables in the given countries of Southeast Europe has the following form:

$$UR = 6.308 + 0.835 \cdot GCME0 - 0.428 \cdot CSIP - 2.563 \cdot DMSDE - 0.195 \cdot OEA + 0.458 \cdot NEA - 0.191 \cdot GEEA - 0.376 \cdot TEA + 0.811 \cdot TBO$$

6. Conclusion

In conclusion, we note that the results of our analysis show that the given regression model does not explain, to a significant extent, changes in GDPR in the reporting period by changes in the selected independent variables (only 15% in developed countries and 22.3% in the countries of Southeast Europe). Therefore, it can be concluded that the chosen independent variables in the model, especially the total entrepreneurial activity, have made, in the reporting period, some, but not significant contribution to economic growth, as measured by the GDPR rate, especially in the countries of Southeast Europe. The development of entrepreneurship has primarily contributed to the reduction in the unemployment rate, while its development has, to a lesser extent, affected the growth of GDP. This can be explained by the fact that, in the observed period, which is the period of extreme impact of the global economic crisis, as well as in the post-crisis period, the development of entrepreneurial activity has, through the establishment of SMEs and self-employment, more contributed to the rise in employment and the absorption of a number of laid-off workers from the existing, primarily large, enterprises. This is in accordance with certain considerations, which we mentioned in the theoretical part, that, in underdeveloped countries, entrepreneurship does not contribute much to economic growth, as it does to some other economic policy objectives, such as reducing unemployment. At the same time, the great variability and decline in GDP in the reporting period, caused by the economic crisis, could not be offset by generating added value in the entrepreneurial sector.

Furthermore, in the underdeveloped countries of Southeast Europe, not all forms of entrepreneurial activity contributed to increasing employment, but mainly opportunity-based entrepreneurship and growth expectation entrepreneurship, i.e. the so-called fast-growing companies – “gazelles”. Between opportunity entrepreneurship and the general characteristics of the macroeconomic environment, there is a strong and statistically significant correlation, while the establishment and development of fast-growing companies is under the biggest statistically significant impact of the characteristics of state institutions and policies.

The macroeconomic policy makers in the countries of Southeast Europe may be advised to, in the future, implement measures to encourage the development of opportunity-based entrepreneurship and growth expectation entrepreneurship, because only they can stimulate economic growth and lead to increased employment in the future. What is more, the focus should be on improving the characteristics of the macroeconomic environment, as they largely affect the development of the most productive types of entrepreneurship. First of all, theoretical knowledge and entrepreneurial practice should, to a greater extent, be included in general education programs in the above-mentioned countries, and greater transfer of ideas and knowledge obtained by scientific research to SMEEs enabled, because this can contribute to easier identify market opportunities, and, based on their exploitation, launch opportunity entrepreneurial activities, i.e. faster reach innovation and establish fast-growing companies. Moreover, the legal and regulatory infrastructure should be improved as well, particularly in the area of property rights, and government bureaucracy reduce, because this can have a stimulating effect on the development of all forms of entrepreneurial activity. In addition, the state policies should be designed to stimulate the creation and development of fast growing companies in particular.

7. Reference

1. Acs, Z.J., Desai, S., Klapper, L.F. (2008). What Does "Entrepreneurship" Data Really Shows? A Comparison of the Global Entrepreneurship Monitor and World Bank Group Datasets, *Small Business Economy*. 31, pp. 265–281.
2. Acs, Z.J., Varga, A. (2005). Entrepreneurship, agglomeration and technological change. *Small Business Economics*, *24*(3), pp. 323–334.
3. Autio, E. (2005). Global Entrepreneurship Monitor (GEM) - 2005 Report on High-Expectation Entrepreneurship, http://papers.ssrn.com/sol3/papers.cfm (accessed 20.07.2015.).
4. Bartlett, W., Bukvic, V. (2001). Barriers to SME Growth in Slovenia. *MOST: Economic Policy in Transitional Economies.*11 (2), pp 177-195.
5. Belka, M. (1995). Enterprise Adjustment in Poland: Evidence from a Survey of 200 Private, Privatized, and State-Owned Firms. Centre for Economic Performance London School of Economics and Political Science: http://eprints.lse.ac.uk/20765/1/Enterprise_Adjustment_in_Poland_Evidence_from_a_Survey_of_200_Private.pdf (accessed 20.07.2015.).
6. Berkowitz, D., DeJong, D. (2011). Growth in post-Soviet Russia: A tale of two transitions. *Journal of Economic Behavior & Organization*. 79 (1-2), pp. 133-143.
7. Burns, P. (2011). *Entrepreneurship and small business.* Palgrave Macmillan. New York.
8. Carlin, W. (2001). Competition and Enterprise Performance in Transition Economies: Evidence from a Cross-Country Survey. CEPR Discussion Paper No. 2840.http://papers.ssrn.com/sol3/papers.cfm?abstract_id=270320. (accessed 12.07.2015.).
9. Carree, M., Thurik, A.R. (1998). Small firms and economic growth in Europe. *Atlantic Economic Journal*, 26 (2), 137–146.
10. Carree, M., Thurik A.R. (2003). The impact of entrepreneurship on economic growth. In Handbook of Entrepreneurship Research, Audretsch, D.B. and Acs, Z.J. (eds.), 437–471. Boston/Dordrecht: Kluwer Academic Publishers.
11. Carree, M., A., Stel, R., Thurik, A.R., Wennekers, S. (2007). The relationship between economic development and business ownership revisited. 19, pp. 281–291.
12. Cohen, J.W., (1988). *Statistical Power Analysis for the Behavioural Sciences* (2nd edn). Hillsdale. Lawrence Erlbaum Associates. New York.
13. Cornelius, B., Landström, H., Persson, O. (2006). Entrepreneurial Studies:The Dynamic Research Front of a Developing Social Science. *Entrepreneurship Theory and Practice*. 30 (3), pp. 375–398.
14. Čučković, N., Bartlett, W. (2007). Entrepreneurship and Competitiveness: The Europeanisation of Small and Medium-sized Enterprise Policy in Croatia. *Southeast European and Black Sea Studies*. 7(1), pp. 37–56.
15. Fritsch, M. (2007). How does new business formation affect regional development? *Small Business Economics.* 30, pp. 1–14.
16. Harrison, B. (1994). The small firm myth. *California Management Review*. 36, pp. 142–158. http://www.gemconsortium.org/report. (accessed 12.07.2015.).
17. Koster, S., Kumar Rai, S. (2008). Entrepreneurship and economic development in a developing country: A case study of India. Journal of Entrepreneurship, 17 (2), 117–137.
18. McDonald, F., Tsagdis, D., Huang, Q. (2006). The development of industrial clusters and public policy. *Entrepreneurship & Regional Development.* 18, pp. 525–542.
19. McMillian, J., Woodruff, C. (2002). The Central Role of Entrepreneurs in Transitition Economies. The Journal of Economic Perspectives, 16 (3), pp.153-170.

20. Megginson, W., Netter J. (2001). From State to Market: A Survey of Empirical Studies on Privatization. *Journal of Economic Literature*. 39(2), pp. 321–339.
21. Minniti, M., Levesque, L. (2008). Entrepreneurial types and economic growth. Journal *of Business Venturing*. 23, pp. 603–612.
22. Moreno, A.M., Casillas, J.C. (2007). High-growth SMEs version non-high-growth SMEs: A discriminant analysis. *Entrepreneurship & Regional Development.* 19, pp. 69–88.
23. Naude, W. (2008). Entrepreneurship in economic development. World Institute for Development Economics Research, 20.over time. Regional Studies, 38, 961–75. http://ftp.iza.org/dp7507.pdf.
24. Paunović, B. (2012) *Preduzetništvo i upravljanje malim preduzećem*, Ekonomski fakultet, Beograd.
25. Poschke, M. (2013). Entrepreneurs out of necessity: A snapshot, *Applied Economics Letters*, 20, pp. 658-663.
26. Richter, A., Schaffer, M. (1996). The Performance of De Novo Private Firms in Russian Manufacturing, in Enterprise Restructuring and Economic Policy in Russia. Commander, Fan and Schaffer (eds.), Washington, D.C.: World Bank, pp. 253–274.
27. Rosa, P, Kodithuwakku, S., Balunywa, W. (2006). Reassessing necessity entrepreneurship in developing countries. *Institute for Small Business & Entrepreneurship*, 1–13.
28. Sabela, R.A., Farraj, A.W., Burgar, M., Qaimary, D. (2014). Entrepreneurship and economic growth in West Bank, Palestine, *Journal of Developmental Entrepreneurship*, 19(1), pp. 1450003-1-1450003-15.
29. Sautet, F. (2013) Local and Systemic Entrepreneurship: Solving the Puzzle of Entrepreneurship and Economic Development, *Entrepreneurship Theory and Practice*. 3, pp. 387-402.
30. Savic, M. (2006). Principal Components Analysis of Employment in Eastern Europe. *Paneconomicus*. 53 (4), pp. 427-437.
31. Serwanga, A., Rooks, G. (2013) Identifying high potential entrepreneurs in developing country: A cluster analysis of Ugandan entrepreneurs, *Journal of Developmental Entrepreneurship*, 18 (2), pp. 1350010-1350025.
32. Sexton, D.L., Landstrom, H. (2000). Handbook of Entrepreneurship. Blackwell Publishers, Ltd.
33. Singer, S., Amoros, J., Moska, D. (2014). Global Entrepreneurship Monitor 2014 Global Report. http://www.gemconsortium.org/report (accessed 12.06.2015.).
34. Sorin-George, T., Grigore, A., Marinescu, P., (2014). Economic development and entrepreneurship, *Procedia Economics and Finance*. 8, pp. 436 – 443.
35. Stefanovic, S., Ivanovic-Djukic, M., Jankovic-Milic, V. (2013). The Analysis of Key Challenges and Constraints to the Stability and Growth of an Entrepreneurial Sector in Serbia. *Journal of Balkan & Near Eastern Studies.* 15 (3), pp. 346-363.
36. Stel, A., Carree, M, Thurik, R. (2005). The effect of entrepreneurial activity on national economic growth. *Small Business Economics.* 24, pp. 311–321.
37. Stivens, J. (1996). *Applied Multivariate Statistics for the Social Science* (3nd edn). Mahwah. Lawrence Erlbaum. New York.
38. Tabachnick, B.G., Fidell, L.S. (2007). *Using Multivariate Statistics* (5nd edn). Pearson Education. Boston.
39. Tang, L., Koveos, P.E. (2004). Venture entrepreneurship, innovation entrepreneurship and economic growth. Journal of Developmental Entrepreneurship, 9 (2), pp. 161–171.
40. Valliere, D., Peterson, R. (2009). Entrepreneurship and economic growth: Evidence from emerging and developed countries, Entrepreneurship & Regional Development 21, pp. 459–480.

41. Wong, P.K., Ho, Y.P., Autio, E. (2005). Entrepreneurship, innovation and economic growth: Evidence from GEM data. *Small Business Economics*, 24 (3), pp. 335–350.

Appendix

Table 1 Countries included in the study

Category	Country
South-West Europe	Bosnia and Herzegovina
	Croatia
	Macedonia
	Romania
	Serbia
	Turkey
Developed	Belgium
	Denmark
	Finland
	France
	Germany
	Greece
	Iceland
	Ireland
	Italy
	Netherland
	Norway
	Portugal
	Slovenia
	Spain
	Sweden

Table 2 Indicators included in the study

Type	Indicator
National Expert Survey Measures	Financing for entrepreneurs
	Governmental support and policies
	Taxes and bureaucracy
	Basic-school entrepreneurial education and training
	Governmental programs
	Post-school entrepreneurial education and training
	R&D transfer
	Commercial and legal infrastructure
	Internal market dynamics
	Internal market openness
	Physical and services infrastructure
	Cultural and social norms
	Financing for entrepreneurs
	Governmental support and policies
	Taxes and bureaucracy
Adult Population Survey Measures	Established Business Ownership Rate
	Total early-stage Entrepreneurial Activity
	Improvement-Driven Opportunity Entrepreneurial Activity: Relative Prevalence
	Necessity-Driven Entrepreneurial Activity: Relative Prevalence
	Growth Expecation early-stage Entrepreneurial Activity: Relative Prevalence
Others	GDP growth (annual %)
	Unemployment rate
	Total Business Ownership (Established Business Ownership Rate + Total early-stage Entrepreneurial Activity)

Table 3 Principal components

Indicators	Components		
	1	2	3
Basic-school entrepreneurial education and training	0.807		
Post-school entrepreneurial education and training	0.638		
R&D transfer	0.711		
Commercial and legal infrastructure	0.765		
Internal market dynamics	0.763		
Cultural and social norms	0.756		
Governmental support and policies		0.849	
Internal market openness		0.743	
Taxes and bureaucracy		0.746	
Physical and services infrastructure		0.592	
Financing for entrepreneurs			0.742
Governmental programs			0.800

Table 4 Descriptive Statistics

Indicator	Developed countries				South-West Europe countries			
	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.
Financing for entrepreneurs	1.79	3.72	2.6635	.34985	1.91	2.87	2.3294	.25230
Governmental support and policies	1.92	3.67	2.7626	.38890	1.81	2.95	2.2715	.28891
Taxes and bureaucracy	1.50	3.99	2.6396	.51731	1.55	3.01	2.0994	.39041
Basic-school entrepreneurial education and training	1.37	3.10	2.1749	.41072	1.78	2.72	2.3233	.25017
Governmental programs	2.06	3.71	2.9971	.35010	1.68	2.43	2.1118	.16257
Post-school entrepreneur ial education and training	2.21	3.76	2.8226	.30161	2.35	3.22	2.7264	.21937
R&D transfer	2.13	3.22	2.6597	.24155	1.72	2.59	2.2073	.22169
Commercial and legal infrastructure	2.52	3.85	3.2501	.29902	2.68	3.52	2.9209	.19711
Internal market dynamics	1.84	3.56	2.7999	.35733	3.00	3.93	3.3752	.24912
Internal market openness	1.92	3.61	2.7286	.33627	1.85	2.86	2.2848	.25642
Physical and services infrastructure	2.82	4.82	3.9567	.44686	2.77	3.77	3.3867	.26104
Cultural and social norms	1.88	4.18	2.7233	.43398	1.98	3.21	2.4461	.33343
Established Business Ownership Rate	1.40	15.8	6.7329	2.8248	2.10	11.0	6.0808	2.34995
Total early-stage Entrepreneurial Activity	2.40	12.5	6.1925	2.0276	4.00	14.5	8.0592	2.53311
Improvement-Driven Opportunity Entre-preneurial Activity	18.0	76.0	55.837	12.439	13.0	57.0	34.327	11.1971
TBO	3.80	23.9	12.768	4.2837	6.10	25.5	14.152	4.35348
Necessity-Driven Entrepreneurial Activity	3.54	34.7	15.289	8.0556	14.0	61.0	40.503	11.1878
Growth Expecation early-stage Entrepre-neurial Activity	5.00	44.0	23.982	8.4457	14.0	61.0	31.990	11.3701
GDP growth (annual %)	-8.86	9.72	.1671	3.1017	-7.4	9.16	1.7268	3.71401
Unemployment rate	2.29	27.4	8.9765	5.2034	5.79	34.9	18.009	9.37491

Table 5 Comparing means for developed and South-East Europe countries

Indicator	t	df	Sig. (2-tailed)
GDPR	-2.779	166	.006
UR	-6.299	59	.000
GCME	2.562	153	.011
CSIP	10.936	132	.000
DMSDE	10.122	136	.000
OEA	9.841	166	.000
NEA	-16.941	166	.000
GEEA	-5.006	166	.000
TEA	-5.008	166	.000
TBO	-1.883	166	.061

Table 6 Correlations for GDPR (Developed Countries)

	GDPR	GCME	CSIP	DMSDE	OEA	NEA	GEEA	TEA	TBO
GDPR	1.000								
	.								
GCME	-.095	1.000							
	(.152)	.							
CSIP	-.131	.772	1.000						
	(.077)	(.000)	.						
DMSDE	.092	.507	.705	1.000					
	(.160)	(.000)	(.000)	.					
OEA	.122	.184	.265	.413	1.000				
	(.092)	(.022)	(.002)	(.000)	.				
NEA	-.175	-.239	-.210	-.324	-.686	1.000			
	(.028)	(.004)	(.011)	(.000)	(.000)	.			
GEEA	-.188	.445	.363	.263	.327	-.282	1.000		
	(.020)	(.000)	(.000)	(.002)	(.000)	(.001)	.		
TEA	-.174	.418	.264	-.139	-.043	.083	.200	1.000	
	(.029)	(.000)	(.002)	(.065)	(.320)	(.184)	(.014)	.	
TBO	-.154	.166	.001	-.363	-.141	.177	-.034	.838	1.000
	(.047)	(.035)	(.497)	(.000)	(.063)	(.027)	(.356)	(.000)	.

Table 7 Correlations for UR (Developed Countries)

	UR	GCME	CSIP	DMSDE	OEA	NEA	GEEA	TEA	TBO
UR	1.000								
	.								
GCME	-.417	1.000							
	(.000)	.							
CSIP	-.394	.772	1.000						
	(.000)	(.000)	.						
DMSDE	-.446	.507	.705	1.000					
	(.000)	(.000)	(.000)	.					
OEA	-.528	.184	.265	.413	1.000				
	(.000)	(.022)	(.002)	(.000)	.				
NEA	.487	-.239	-.210	-.324	-.686	1.000			
	(.000)	(.004)	(.011)	(.000)	(.000)	.			
GEEA	-.296	.445	.363	.263	.327	-.282	1.000		
	(.001)	(.000)	(.000)	(.002)	(.000)	(.001)	.		
TEA	-.075	.418	.264	-.139	-.043	.083	.200	1.000	
	(.208)	(.000)	(.002)	(.065)	(.320)	(.184)	(.014)	.	
TBO	.188	.166	.001	-.363	-.141	.177	-.034	.838	1.000
	(.020)	(.035)	(.497)	(.000)	(.063)	(.027)	(.356)	(.000)	.

Table 8 Correlations for GDPR (South-East Europe Countries)

	GDPR	GCME	CSIP	DMSDE	OEA	NEA	GEEA	TEA	TBO
GDPR	1.000								
	.								
GCME	.141	1.000							
	(.170)	.							
CSIP	.269	.682	1.000						
	(.032)	(.000)	.						
DMSDE	.069	.623	.486	1.000					
	(.321)	(.000)	(.000)	.					
OEA	-.043	.360	.063	.296	1.000				
	(.386)	(.006)	(.336)	(.021)	.				
NEA	-.021	-.159	.063	-.288	-.671	1.000			
	(.443)	(.141)	(.336)	(.023)	(.000)	.			
GEEA	.250	.179	.412	.046	.180	-.233	1.000		
	(.043)	(.111)	(.002)	(.379)	(.110)	(.056)	.		
TEA	.303	-.008	.283	.032	-.191	.083	.362	1.000	
	(.018)	(.479)	(.026)	(.414)	(.097)	(.287)	(.006)	.	
TBO	.358	.066	.297	-.026	-.194	.214	.148	.890	1.000
	(.006)	(.328)	(.020)	(.430)	(.093)	(.072)	(.158)	(.000)	.

Table 9 Correlations for UR (South-East Europe Countries)

	UR	GCME	CSIP	DMSDE	OEA	NEA	GEEA	TEA	TBO
UR	1.000								
	.								
GCME	-.211	1.000							
	(.075)	.							
CSIP	-.034	.682	1.000						
	(.409)	(.000)	.						
DMSDE	-.317	.623	.486	1.000					
	(.014)	(.000)	(.000)	.					
OEA	-.697	.360	.063	.296	1.000				
	(.000)	(.006)	(.336)	(.021)	.				
NEA	.822	-.159	.063	-.288	-.671	1.000			
	(.000)	(.141)	(.336)	(.023)	(.000)	.			
GEEA	-.384	.179	.412	.046	.180	-.233	1.000		
	(.004)	(.111)	(.002)	(.379)	(.110)	(.056)	.		
TEA	.228	-.008	.283	.032	-.191	.083	.362	1.000	
	(.060)	(.479)	(.026)	(.414)	(.097)	(.287)	(.006)	.	
TBO	.407	.066	.297	-.026	-.194	.214	.148	.890	1.000
	(.002)	(.328)	(.020)	(.430)	(.093)	(.072)	(.158)	(.000)	.

WAITING FOR INTEGRATION - GOING BEYOND THE TRANSITION: CASE STUDY MONTENEGRO

Gordana DJUROVIC[174],
Milica MUHADINOVIC[175]

Abstract

This paper is focused on analysis of Montenegrin development model in the last 25-year period, its main challenges and consequences. Having been in three different state frameworks (SFRY, FRY and State Union) before regaining independence, Montenegro experienced very turbulent period of economic development, from deagrarised and state-driven industrialised ex-Yugoslav Republic dependant on local market, via transition recession, stagnation, slow recovery based on gradual expansion of services, deindustrialization and FDI driven model of development. Montenegro has achieved level of real GDP from the '90s in 2007, on the eve of the economic crisis. In the last six crisis years, average real growth rate was only 0.5% while public debt/GDP ratio has almost doubled, amounting more than 60% of GDP in 2015. In the case of Montenegro, transition did not easily reshape into the EU integration process, but the transition recession caused a slow economic recovery, which is characterized by the expansion of services, lagging industry, large regional development gaps and social segmentation.

Magnetic attractiveness of the EU integrations remains, despite the golden era of enlargement has been replaced by a moderate, pragmatic Eurorealism. European integration has remained a strategic foreign policy priority to mark this decade (and EU2020 agenda as development framework), not because it is the best path, but because currently no better one exists. After three years of the EU accession talks, future integration dynamic is very important, but real readiness for integration is even more substantial. The readiness, in this case, is a two-dimensional category and Montenegro should be prepared for undertaking future membership obligations, especially strengthening the rule of law and consolidating its institutions, implementing new economic governance and reducing Government's discretionary competences, whereas, on the other hand, the Union should be ready to accept new members, while being consolidated, with clear consensus concerning future enlargement to the Western Balkans.

In the mean time, due to numerous development restrictions, the low level of competitiveness of the Montenegrin economy, presented inter alia with constant and strong trade deficit, will be only partially improved by the raise of FDI. Structural changes towards export oriented growth, in the context of European integration process and crisis time, still present a great challenge for small and open Montenegrin economy which is very dependent on external demand. Accordingly, based on analysis of main economic and social indicators and their interdependence in the abovementioned period, this paper traces the rise of FDI-led growth as a development paradigm, and argues that it should be balanced with other sources of growth to support overall smart, sustainable and inclusive development framework of the smallest Western Balkans country.

Keywords: *economic development model, transition, European integration, Montenegro*

[174] Professor Gordana Djurovic, PhD., University of Montenegro, Faculty of Economics, Podgorica, Jovana Tomasevica 37, 81000 Podgorica, Montenegro, E-mail: gordana@t-com.me;
[175] Milica Muhadinovic, University of Montenegro, Faculty of Economics, Podgorica, Jovana Tomasevica 37, 81000 Podgorica, Montenegro, E-mail: milicamuhadinovic@gmail.com;

1. Introduction

Transition is a relatively new term in the area of social sciences and includes the processes of pluralisation and democratization in former socialist countries (Vojnic, 1994, pp.5-6) and can be observed, at the same time, from the economical and political point of view. Some countries went through changes in the economy simultaneously with significant changes in the political situation (e.g. declaration of independence adopted by Slovenia followed by Croatia, Bosnia and Herzegovina and Macedonia, Montenegro, consequently Serbia, and most recently Kosovo). From the economic point of view, transition implies the process of transformation of non-market, or centrally planned economy into an open market economy (mostly based on FDI driven model of development). In general, the aim of the transition is to support not only democratic but also economic changes in former socialist systems through achievement of the following goals: to secure stable macroeconomic environment and market-oriented institutions, overall macroeconomic stabilization, price liberalization, changes in ownership and to create market conditions for restructured, privatized or newly established companies. However, the transition from centrally-planned to market economy in the Western Balkans region was accompanied by deep and long-term recession, and its duration and depth was longer and deeper than falls in ordinary business cycles of developed countries (Skuflic, 2010, p.p.243-252). Economic recovery in the Western Balkans region is very slow, such as level of competitiveness on both macro and micro level (GCI 2014 is 67). Political situation is continuously instable creating negative spill over effects within newly established small countries.

This paper explores the efficiency of the transition process in Montenegro, the smallest of six Western Balkan countries surrounded with the EU today. The focus of our analysis is the economic development of Montenegro in the last 25-year period. The periodization of development of the economic system of Montenegro is partially linked to the changes in the constitutional status of the country. At the beggining of the 20th century, Montenegro was an independent and internationally recognized state, with modest economic potential. After World War I, development of Montenegrin society and economy becomes linked to the fate of Yugoslavia. From 1918, Montenegro continues its development as a part of „three“ Yugoslavias – the pre-war kingdom, the post-war Socialist Federal Republic of Yugoslavia (SFRY) and Federal Republic of Yugoslavia (SR Yugoslavia) until 2003, when State Union of Serbia and Montenegro was created, all the way to, once again, independent Montenegro in 2006 (Djurovic, 2012, pp. 243-244).

However, before studying period of transition, it is important to explain development model of Montenegro as a part of SFRY economic system.

The relative and absolute lagging of Montenegro in relation to other parts of the pre-war Yugoslavia, was inherited after World War II, as a kind of a developmental problem in the new country ("second" Yugoslavia). Development of Montenegrin economy, as a part of SFRY economy, was based on the concept of *industrialization* as a development model (Vukcevic, 1983, pp. 2-7). Measured by basic economic and social development indicators, Montenegro in the post-war development period, achieved dynamic economic growth (e.g. annual growth rate in the period 1948-1980. was 5.9%) and experienced huge social changes. Montenegro had practically no remotely significant industrial capacity and its traffic system was poorly connected with the rest of Yugoslavia, and only 13.5% of arable farmland was populated by more than 71% of the total population (Cvetanovic, Djurovic, 1996, pp. 406-407)

Very low level of development of production capacities and relatively modest conditions for the development of agriculture, on the one hand, and the resources available in the ore and forest wealth, hydro-energy, and especially favorable conditions for the development of tourism and maritime economy, on the other hand, strongly influenced the strategic directions of its

development. Basic infrastructure including roads and railways, energy production and metal industry were main investments for several decades of post-war development (Kostic, 1992, pp.8-10).

Structure of Montenegrin domestic product was radically changed within post-war Yugoslav development period, as it is presented in the following table. In the period 1952-1989 primary sector was reduced from 43% to 14% while secondary sector increased from 28% to more than 45%. Tertiary sector gradually increased its share, including tourism in the last three decades. (Djurovic, 2012, 245-246).

Table 1 - Montenegrin domestic product structure 1952-1989

Sectors	Domestic products of Montenegro				
	1952	1960	1970	1980	1989
Agriculture and Forestry	42,6	31,3	17,1	11,1	14,4
Industry	7,4	20	28,6	30,8	37,9
Construction	20,1	15,9	15,6	14,7	7,1
Transport	4,5	10,8	13,3	15,2	18,8
Trade	21,9	18,3	22	18,7	13,2
Hotels and restaurants	3,5	3,7	7	4,5	4,2
Other			4	5	4,4
Total	100%	100%	100%	100%	100%

Source: Calculation based on statistical yearbooks of SFRY for relevant years;

Implemented development model at the end of 1980s created a few serious development limitations:

1. *Structural discrepancy of the economy* – low level of investment, undeveloped manufacturing and finalisation of products, low level of productivity and labour efficiency, structural unemployment; Implemented method of industrialisation made possible growth of the Domestic product per capita from 50$ in 1945 to 2.300$ in 1989, but structural discrepancies occurred;
2. *Low level of utilisation of national resources* (i.e. less than 20% of utilisation of hydro potentials);
3. *High level of "internal" dependence* - period of dynamic industrialization focused mostly on production of raw materials for other Yugoslav republics, created a very high level of dependence of Montenegrin economy on domestic market, vulnerable in the case of certain changes of current economic relations. Table number 2 presents matrix of inter-republic trade relations in which Montenegro had the biggest level of dependence on other republics on both export and import side (Montenegro imported from other republics 48,5% of produced goods and exported abroad only 9,1%);
4. *High import dependence, lack of export orientation* – development of metal industry was based on expensive imported inputs (coefficient of export dependence was even 0,51 in 1989 and level of openness of Montenegrin economy was only 56%);
5. *Regional development gaps* between developed Center and South and undeveloped North; Low level of functional integrity of space; Undeveloped technical and social infrastructure;
6. *Negative economic migrations* and continuous reduction of population in the Northern region, including reduction of rural population (Spatial plan, 1995, pp.49-54);

Table 2 –Matrix of inter-republic trade in goods in 1986

Seller	Bayer							
	BA	MN	HR	MK	SI	RS	Out of republic	Export
BA	50,7	1.8	11.4	2.0	6.2	15.9	37.4	11.9
MN	9.5	42.4	5.2	3.6	3.2	27.1	48.5	9.1
HR	7.7	1.2	50.5	1.8	10.8	12.5	34.0	15.5
MK	4.5	2.0	7.9	49.6	5.7	21.9	41.9	8.5
SI	5.1	0.7	15.6	1.8	43.5	13.5	33.8	19.7
RS	10.6	3.6	13.5	6.0	8.8	47.5	42.4	10.1

Source: Politika, Belgrade, 12.4.1992;

Having recognized need to transform socio-economic system and to establish market economy system, Montenegro, in late 1980s, jointly with other SFRY states, went into the inevitable and uncertain process of *transition.*

2. Data and methodology

This paper contains (statistical and analytical) data that generally rely on official sources from the UN national accounts statistics for selected economic indicators 1990-2013 such as GDP, GDP/pc, Gross fixed capital formation, Trade balance and Employment. Statistical office of Montenegro (Monstat) was the source for data on economic, financial, demographic, regional and social indicators of Montenegro.

According to official data on real GDP growth, we can define a few development phases during the transition in Montenegro. First period can be named “transition recession”, which marked the whole decade (1990-2000). Second period of transition is a period of gradual economic recovery (2001-2005) which is characterized by gradual takeover of the jurisdiction in the area of macroeconomic governance from the federation /State Union level to Montenegrin government level. After regaining independence in May 2006, Montenegro experienced a period of a so-called “investment boom”, which encompasses the institutionalisation of European integration process (signing of Stabilisation and Association Agreement (SAA) in October 2007 and opening of the EU accession negotiations in 2012). Current phase of Montenegrin transition is characterised by deep economic crisis and slow economic recovery that lasts up to today.

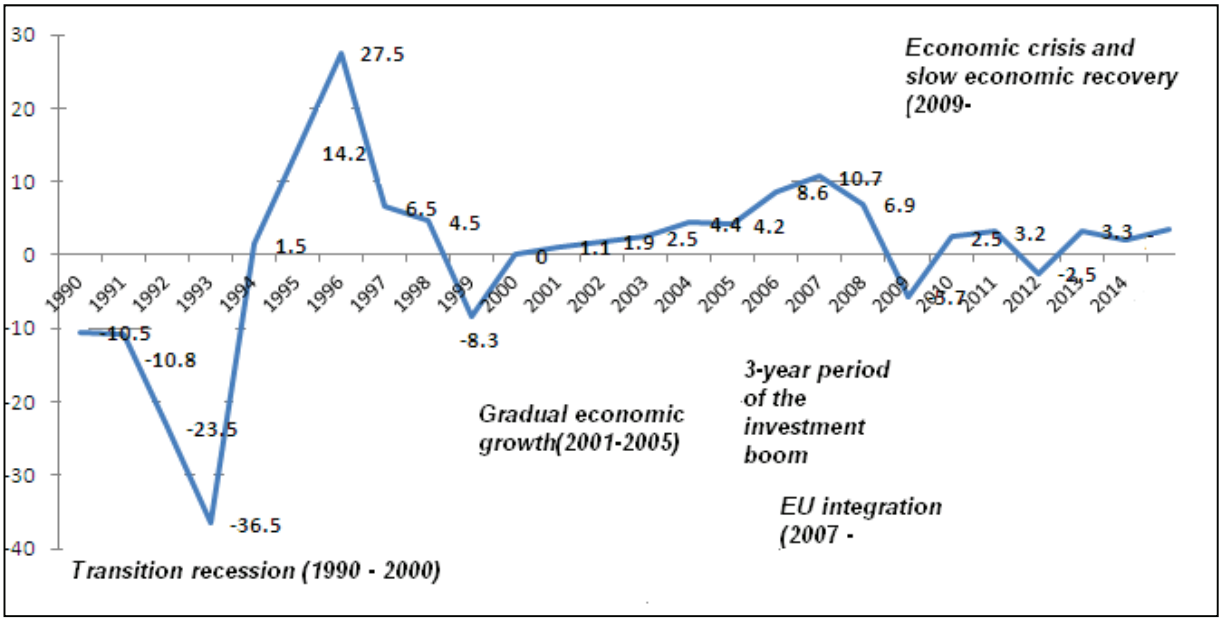


Figure 1 – GDP real growth rate of Montenegro 1990- 2013 and the transition phases (UN statistics and authors periodisation)

Having been in three different state frameworks (SFRY, FRY and State Union) before regaining independence, Montenegro experienced a very turbulent period of economic development, from deagrarised and state-driven industrialised ex-Yugoslav Republic dependant on local market, via transition recession, stagnation, slow recovery based on gradual expansion of services, deindustrialisation and FDI driven model of development.

As it is presented on Figure 2, Montenegro has achieved level of real GDP from the '90s only in 2007, on the eve of the economic crisis.

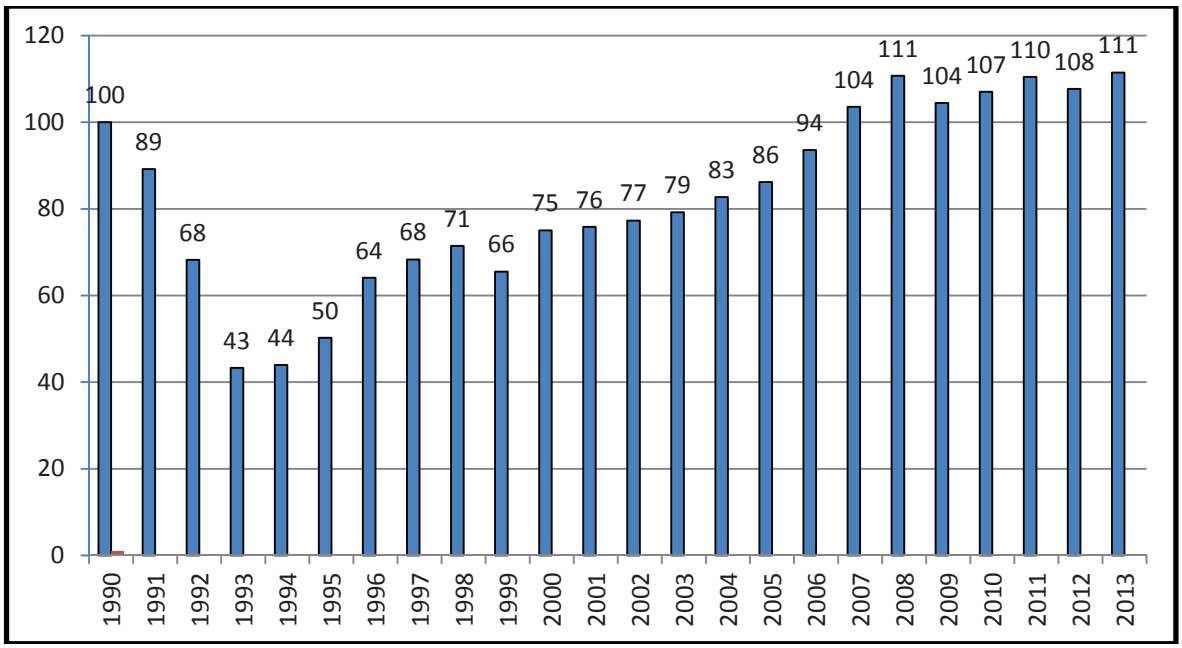


Figure 2 - Real GDP (1990=100) constant prices 2005

In the last six crisis years (Figure 1), according to the UN statistics and Montenegrin statistical office data, average real growth rate was only 0.5% while public debt/GDP ratio has almost doubled, amounting more than 60% of GDP in 2015 (Monstat, 2015).

One of important characteristics that marked the whole analyzed period is the existence of a *constant trade deficit* in goods that could not be covered with the investment growth – neither during the transitional recession, neither in the period of investment boom and the period of intensifying of the European integration process. This trend is presented in the table below.

Table 1 – Gross fixed capital formation in GDP and Trade deficit in GDP structure

Year	**Gross fixed capital formation/ in GDP**	**Trade deficit / GDP**	**Differences (%)**	Year	**Gross fixed capital formation/ in GDP**	**Trade deficit / GDP**	**Differences (%)**
1991	17%	-19%	-2%	2003	13%	-16%	-3%
1992	17%	-19%	-2%	2004	17%	-16%	1%
1993	17%	-19%	-2%	2005	18%	-18%	0%
1994	17%	-19%	-2%	2006	22%	-30%	-8%
1995	17%	-19%	-2%	2007	32%	-42%	-10%
1996	17%	-20%	-3%	2008	38%	-54%	-16%
1997	17%	-18%	-2%	2009	27%	-33%	-7%
1998	17%	-20%	-3%	2010	21%	-28%	-7%
1999	16%	-21%	-4%	2011	18%	-22%	-4%
2000	17%	-14%	3%	2012	19%	-25%	-6%

2001	18%	-24%	-6%	2013	19%	-20%	-1%
2002	15%	-25%	-10%				

Source: UN statistics and calculation of authors;

It is indicative that the ratio between the share of goods trade deficit in GDP and Gross fixed capital formation in GDP was constantly negative, and the biggest difference was recorded in the period of investment boom (16% in 2008, because the trade deficit reached its peak of 54% share in GDP).

Empirical research from Gluscevic (1986), Ivanovic (1987), Kostic (1993) and Vukcevic (1995), at the end of the 1980s and early 1990s, pointed out that overall Montenegrin economic development within post-war Yugoslavia was based on dynamic industrialisation development model focused on domestic market. Bjeletic (2000) argues that applied methods of industrialisation contributed essentially to economic prosperity and social progress of Montenegro in spite of extremely high dependence on domestic market and intra-republic economic cooperation. Vukotic (2010) stressed that development strategy in early XXI century is FDI driven followed by European and Euro-Atlantic integrations. The main limitations of that strategy are the following: level of competitiveness of Montenegrin economy, quantity and quality of labour force, regional differences and social imbalances (Vukotic, 2010, pp. 36).

Having in mind all of the above mentioned, some of the hypothesis we are trying to prove in this paper are:

1. In Montenegrin case, transition did not become easily European integration as in CEE enlargement countries, but transitional recession from the ‘90ties has caused slow economic recovery, followed by the expansion of the service industry and industry lagging, large regional development gaps and social segmentation.

2. Low level of competitiveness of Montenegrin economy measured by most important global indexes (GCI, DB, and Freedom House) is represented by a constant trade deficit in goods, because of numerous developmental constraints, which could not be covered only by the growth of FDI. Dynamic liberalization, along with postponed European integration, in circumstances of an insufficient inflow of FDI, affected negatively competitiveness growth of Montenegrin economy, measured by export growth.

3. In the medium run, development model based on FDI cannot be replaced with the development model based on competitive export.

3. Results and disucssion

In line with the proposed research thesis, and analysis of the Montenegrin development model in the last 25- year period, research will be conducted through the periodisation according to specifics of policy measures and macroeconomic trends.

a) The first decade – transition recession, very slow recovery and re-integration in international economic relations

In the case of Montenegro, such as in other parts of ex-Yu economic space, transition started with the period of economic recession. In other words, unlike countries of Central and Eastern Europe, and caused by a number of negative events, transition in ex-Yu countries became process of country dissolution, with disintegration of single market, and finally resulting with war in Croatia and Bosnia and Herzegovina. Founding of SRY in April 1992 was followed by economic sanctions,

blockade of international trade, hyperinflation, and general decrease in economic activity in all sectors. Montenegro, out of all states, was more seriously affected by dissolution of state and loss of republic markets for its export, as it was traditionally oriented on production of raw materials and import of final products from, at that time, single Yugoslav market with a population of 23 million (Djurovic, Radovic, Djuraskovic, 2011, pp. 14-15).

Because of the aforementioned dissolution of Yugoslavia, and all of the problems linked with it, SRY found itself in a period of surviving the so-called *transition recession*, and between 1990 and 1996 went through the most difficult economic and social crisis in recent history. Main temptations of Montenegrin economy in mentioned period can be systematised as follows: a) the first temptation is connected with the necessity of replacing logic of socialistic self-management economy with market logic and system of market conditions (transition period and programme of market transformation coordinated by the state); b) fast adjustment on dissolution of Yugoslav market; c) UN economic sanctions 1992-1995; d) social fragmentation and poverty caused by reduction of economic activities in majority of industries and reduction of the living standard; e) raise of the informal economy and unemployment; and f) finally, economic and social challenges which had a negative impact on the basic system of values (Djurovic, Boskovic, Cetkovic, 2003, pp.31-32).

b) Approaching independence and investment boom

In attempt to protect its basic economic resources, Montenegro entered the process of gradual building of its own economic system, creating, gradually, its own economic policy. In July 1999, Montenegro adopted some regulations of transitional character and stopped to transfer part of customs revenues into the federal budget, as well as part of revenues from sales tax and excise duties, and soon after that, Montenegro took over customs service for its territory. In parallel, in November 1999, Montenegro introduced dual currency system. Consequently, in November 2000, only German mark remained as official currency in the payment system.

The beginning of *the first phase of real transition and first generation* of reforms actually began by mentioned monetary reform and by taking over competencies in the field of foreign trade and customs policy. It continued with dynamic price liberalization on the internal market, reduction of customs and non-tariff barriers, establishment of significant number of new institutions, adoption of strategic documents in key policy areas, which meant adoption of set of new regulations in the field of financial policy, customs, tax, and sectoral policies.

Through different models of privatizations, including the model of mass voucher privatization in 2002 (that engaged 350 000 citizens), more than 80% of state capital became private property. In addition, period of gradual economic recovery was followed by gradual FDI growth. The first three years after regaining independence are characterized by extraordinary economic dynamics, average GDP real growth rate 2006-2009 was 9%, average net FDI as percentage of GDP 2006-2009 was 25% (Central Bank of Montenegro, 2015).

This was the period of gradual strengthening of economic independence of Montenegro, which was confirmed by the will of citizens on referendum held in May 2006. In parallel, its European orientation was affirmed by signing Stabilization and Association Agreement in October 2007.

Having completed first generation of reforms (privatization, internal price and foreign-economic liberalization, macro-economic stabilization), Montenegro successfully implemented *the second generation of reforms* which cover the following: completing its own legal system, establishment and efficient functioning of market institutions, coordination of economic policies (Djurovic, Radovic, Djuraskovic, 2011, pp. 16).

Third generation of reforms could be defined as process of European integration and substantial growth of competitiveness of Montenegrin economy as a response to the challenges of the economic crisis. Opening of the economy, liberalization of foreign flows, fast growth of

different economic sectors, low inflation rate, even budget surplus, strong FDI inflow, continuous reduction of unemployment rate, reduction of the external debt and high level of trade deficit are all basic characteristics of Montenegrin economy in the mentioned period. Business environment gradually became more attractive for investors, while the economic relations were strengthened in parallel, especially with European countries.

c) Montenegrin economy in the time of crisis – new challenges

Breakdowns in global economic and financial system had significant influence on total business ambience in Montenegro – in conditions of small, open, "euro-ised" market-oriented, but insufficiently competitive economy. However, following the global financial and economic crisis, Montenegrin GDP contracted by 5.7 percent in 2009, grew by 2.5 percent and 3.2 percent in 2010 and 2011, respectively, contracted again by 2.5 percent in 2012 and grew by 3.3 percent in 2013, in each case in real terms. Having undertook certain, adequate ant-crisis measures in real and financial sector in the period 2008 – 2013, unfavourable effects have been mitigated and economic substance has been saved, which was precondition for process of gradual, though very slow recovery. The first data for 2014 show 1,5 percent real growth and prognosis for 2015-2017 are on the level of 3,5-4 percent (PER, 2015, pp.2-4).

In table 3, in the observed period (2000-2013) services have stabilized their share in the GDP at 63%. When analyzing the structure of the gross value added (GVA) used in international comparisons, this trend is even more obvious, taking into account the fact that the sector of services (including construction) has enlarged its share from 68.4% to 76.4%.

Table 3 - Montenegrin GDP structure 2000-2013

Structure/activity	2000			2013		
	% GDP	% GVA	Employed	% GDP	% GVA	Employed
Agriculture and forestry	11.3%	12.5%	2.1%	8.0%	9.8%	1.6%
Industry	17.4%	19.1%	25.3%	11.3%	13.8%	13.2%
Construction	3.9%	4.3%	4.8%	4.1%	5.0%	4.9%
Other services	58,%	64.1%	67.8%	58.4%	71.4%	80.3%

Source: Monstat, 2015 and calculation of authors;

When analyzing the GDP structure of Montenegro which is created by individual service activities, the largest representation in selected indicators is that of the trade sector (14.3% in the GVA structure and 21.8% in the registered employment) followed by tourism (6.5% in the GVA and 8.4% in the registered employment).

The number of the employed in the industry has decreased almost by a half in the observed period (in the total employment, from 25.3% to 13.2%). At the same time, registered employment has followed the trend of strengthening of the services sector: the total employment has increased from 140.000 to 171.474 (by 22%), while the growth of employment in the sector of services has increased approximately by 44.000 (43%).

The objective of the Government in the period 2015-2017 is to conduct fiscal policy of reducing current spending, but increasing investment in infrastructure, so that the public debt could be financed from economic growth, and in the interest of establishing its downward trend.

Table 4 – Medium term macroeconomic scenario 2015-2017

Indicators	2015	2016	2017
a) Macroeconomic indicators:			
GDP real growth (%)	3,5	3,8	4,0
FDI in GDP (%)	11,6	14,7	14,9
Current account deficit (%)	-13,3	-13,8	-14,6
b) Fiscal indicators			
Central Gov. Budget /deficit	-5,3	-5,0	-4,0
Government debt (% of GDP)	63,2	67,0	69,1

Source: PER 2015-2017, Government of Montenegro, pp.14-27;

Gross fixed capital formation will grow at an average rate of 11.1% over the medium term, in line with the pace of implementation of investment projects (total amount of priority investment projects is more than 4 billion EUR in the period 2014-2018). Strong contribution will come from the capital budget that will be used for financing the highway Bar-Boljare section project. Montenegrin Government estimates that the impact of construction of the highway section on the formation of GDP will be at the level of at least 10% of GDP, which will reflect not only on an increased contribution of gross fixed capital formation, but also on household consumption (PER, 2015, pp. 14).

As it is presented in the table 4, FDI/GDP ratio is planned to be higher than current account deficit in BDP ratio already in 2016. Further relation will depend on FDI inflow according to big tourism, transport, agriculture and energy projects. In the mean time, according to Montenegro Foreign Investors Council, Montenegro became one of the most attractive destinations for FDI, something not easily achieved amongst such fierce competition coming from jurisdictions with a much longer tradition of attracting foreign capital and with a more developed infrastructure and regulatory environment and practices. In 2013, foreign investors accounted for 19% of Montenegrin GDP and employed 5.000 workers (MFIC White book, 2013, pp. 8).

Having in mind level of public debt (over Maastricht criteria of 60% of GDP) and debt management plan in long-term, Montenegro is implementing reforms that need to ensure long-term sustainability of public finances (pension system, labour market reforms, further fiscal reforms, etc.).

d) SAA in force (2010), accession negotiation with the EU (2012 -) and EU-led development strategy

Following the concept of the Europe 2020 Strategy, the MDD 2015-2018 are structured in three directions: smart growth, sustainable growth and inclusive growth. Four sector priorities in medium-term development strategy framework are tourism, energy, manufacturing and agriculture and rural development (MDD, 2015, pp. 2).

Table 5 – Montenegro's Development Directions 2015-2018

Pillars	Smart growth	Sustainable growth	Inclusive growth
Four sector priorities, 19 policy areas of MDD with 72 specific and necessary investments/development measures	1. Business environment	9. Agriculture and rural development	15. Labour Market
	2. SMEs	10. Forestry	16. Education
	3. Manufacturing	11. Energy	17. Sports
	4. Competitiveness	12. Environment	18. Social protection
	5. Science	13. Transport	19. Healthcare
	6. Higher education	14. Housing and Construction	
	7. ICT		
	8. Tourism		
Total investment of identified / possible projects in million € - 2.889	1.088,86	1.745,50	54,74

Source: MDD 2015-2018, Government of Montenegro, pp.2-3.

The total available public funds of Montenegro for financing planned investments/development measures proposed in MDD in the period 2015 – 2018 are estimated to 330,02.33 million €, planned loans are around 800 million € and expected EU IPA II funds are 152,20 million €. The gap of 1.057, 71 million € is expected to be covered by private sector (MDD, 2015, pp. 99-100). This financial gap actually indicates the difference between the wishes for investments/development measures and actual financial potential. We can conclude that financial gap could be the key limiting factor for implementation of required investments / development measures in the area of sustainable growth.

Finally, important input for defining development strategy comes from the EU. The EU accession negotiation with Montenegro were opened in June 2012 at the Inter-governmental Conference in Brussels, screening process was completed by June 2013 and the EC screening report for all 33 chapters were published by March 2014. After three years of negotiations, by June 2015, impressive dynamics is achieved: more than half of negotiating chapters were opened (20 out of 35) and two are temporarily closed (C 25 & C 26). In addition, through the Programme of Economic Reform, all Western Balkans countries start to participate in process of coordination of economic policies and structural reforms, i.e. pilot phase of economic governance in our region. To conclude, magnetic attractiveness of the EU integrations remains, despite the golden era of enlargement has been replaced by a moderate, pragmatic Euro-realism. The European integration has remained a strategic foreign policy priority to mark this decade, not because it is the best path, but because currently no better one exists. After three years of the EU accession talks, future integration dynamic is very important, but real readiness for integration is even more substantial. The readiness, in this case, is a two-dimensional category and Montenegro should be prepared for undertaking future membership obligations, especially strengthening the rule of law and consolidation of institutions, new economic governance and reduction in government's discretionary competences, whereas, on the other hand, also the Union should be ready to accept new members, while being consolidated, with clear consensus concerning future enlargement to the Western Balkans.

4. Conclusion

The purpose of this paper was to analyze Montenegrin development model in the last 25-year period with focus on structural changes and different development frameworks during the mentioned period. For the analysis we used official statistical data with additional calculations, including analysis of implemented policy measures and realised investments, determining economic structure. The whole period was divided in a few specific sub-periods.

The main conclusion of the analysis is that the GDP growth is closely linked with the FDI inflow, mix of policy measures (including overall political and macroeconomic stability) and impact of external demand. Recently, a strong impact on the Montenegrin economy came from the Eurozone, having in mind euro-ised economy and EU membership aspiration.

Duration of the transition process in the case of Montenegro and the whole region confirms the thesis that transition did not easily transform into European integration process, but transition recession from the '90ties has caused slow economic recovery, followed by the expansion of the service industry and industry lagging, large regional development gaps and social segmentation (real GDP in 1993 was only 43% of the 1990 GDP, and the level of GDP from 1990 was again achieved only in 2007, on the eve of economic crisis).

Montenegro, as most economies after the global economic and still present European debt crisis, had a hard, but relatively successful recovery period. However, in the next phase of the integration process, economic accession criteria will become more important and integration challenges even bigger.

In the mean time, due to numerous development restrictions, the low level of competitiveness of the Montenegrin economy will be partially improved by the raise of FDI. Structural changes towards export oriented growth, in the context of European integration process and crisis time, still present a great challenge for small and open Montenegrin economy which is very dependent on external demand. Accordingly, based on analysis of main economic and social indicators and their interdependence in abovementioned period, this paper traces the rise of FDI-led growth as a development paradigm, and argues that it should be balanced with other sources of growth to support overall smart, sustainable and inclusive development framework of the smallest Western Balkans country.

Despite all the positive trends, Montenegrin economy remains vulnerable to external shocks which could have an adverse effect on Montenegro's economic growth.

References:

1. Central bank of Montenegro (2015), Statistical database, (http://cbcg.me/index.php?mn1=statistika accessed 15 July 2015),
2. Cvetanović S., Djurović G. (1996), *Privredni razvoj*, Ekonomski fakultet, Podgorica;
3. Djurovic G., Boskovic P., Cetkovic J. (2003), *Alternative development concepts of the economy of Montenegro*, Economic Faculty, MMC, Podgorica;
4. Djurovic G., Radovic M., Djuraskovic J. (2011), Macroeconomic performances of Montenegrin economy in the period 2000-2010, *Economic development through prism of the entrepreneurship*, Proceedings, Faculty of Economics, Podgorica;
5. Djurovic G.(2012), *Evropska unija i Crna Gora: ciljevi ekonomske, socijalne i teritorijalne kohezije*, Ekonomski fakultet, Podgorica;
6. Kostic M. (1992), *Dugoročne tendencije u razvoju Crne Gore i Jugoslavije*, Ekonomski fakultet, IDEI, Podgorica i Stručna knjiga, Beograd;
7. MDD - *Montenegrin Development Directions 2015-2017* (2015), Government of Montenegro;
8. MFIC White Book (2013), *Foreign Inverstor's View of Investment Climate in Montenegro*, Podgorica;
9. Monstat (2015), Statistical Office of Montenegro, Statistical database; (http://www.monstat.org/eng/index.php , accessed 15 July 2015);
10. PER, *Program of economic reforms 2015-2017*(2015), Government of Montenegro;
11. *Spatial plan of the Republic of Montenegro till 2000* (1995), Government of Montenegro;

12. Škuflić L. (2010). Transition Process in the Western Balkans: How Much is it a Successful Story? *Intelligent Information Management*, 2(4);
13. Vojnic D. (1994), O nekim koncepcijskim i empirijskim problemima ekonomije i politike tranzicije, *Ekonomski pregled*, 54 (5-6), Informator, Zagreb;
14. Vukcevic R. (1983), *Industrijalizacija i deagrarizacija u Jugoslaviji*, Univerzitetska riječ, Titograd;
15. Vukotic V. (2010), *Philosophy of the economic development of Montenegro in the era of competitiveness*, Montenegro in XXI century – in the era of competitiveness, Economic development, Montenegrin Academy of Sciences and Arts;

THE ALBANIAN ECONOMY IN 25 YEARS OF ITS TRANSITION- MAY, 2015

Ela Golemi, PhD Candidte

Aleksander Moisiu University, Durres

golemiela31@yahoo.com

Abstract

The past 25 years the Albanian economy has undergone significant transformation, which have strengthened economic progress, integration into the global economy, and major improvements in living standards. But the task of building full market economy has been difficult and protracted. Liberalization of trade and prices came quickly, but institutional reforms - in areas such as governance, competition policy, labor markets, privatization and enterprise restructuring - often faced opposition from vested interests.

The paper sets out the main features of the Albanian economy transition from the macroeconomic perspective. The transition 's itinerary is analysis in three periods; the first phase discusses the pre-crisis developments in Albania, characterized by an increase in domestic demand and orientation towards the non tradable sector; The second section presents the problems faced by the Albanian economy during the crisis and the third section outlines the need to orientate the economy toward a new strategy of growth in the future, which steps should be taken in order to create opportunities and challenges for going forward.

The paper concludes that current economic model cannot generate sustainable growth at the pre-crisis period. New dynamics and prosperity in the 21st century requires a smarter growth model, and one that has in its substance regional cooperation.

Keywords : *transition, sustainable growth, structural reforms, regional cooperation*

I. Introduction

Before global financial crisis Albanian economy was experiencing sustained and rapid growth, accompanied by a low inflation rate, a consolidated fiscal position, and a stable foreign exchange market. Sound fiscal and monetary policies as well as low macroeconomic volatility supported the impressive growth of the country. The main driver of growth was strong domestic demand, which reflected a rising trade deficit financed through remittance inflows, privatization and FDI. The crisis changed that situation, affecting several aspects of the Albanian economy. The first impact of the crisis was on the banking system, not as severe as in other emerging and developed economies, than economic growth slowed down, as did credit and investments. The aim of this paper is to discuss several implications of the economy's pre-crisis growth model, which, together with the financial crisis, revealed a number of domestic imbalances. The implications of these imbalances need to be considered in order to lay a basis for a new model of development. The main question raised in this paper is whether the core pillars of growth that have sustained the Albanian economy from the beginning of the transition process until the present time remain intact, and can robustly support sustainable growth over the medium term. This question motivates the discussion that follows concerning the future growth model for Albania.

The paper is organized as follows. The second section discusses the pre-crisis model in Albania, which was characterized by an increase in domestic demand and orientation towards the non-tradable sector. The third section presents the problems faced by the economy during the crisis, as well as the need to change its model of growth. The fourth section outlines the characteristics of the new model, basically explaining the need to find new sources of productivity improvement through investment in technology, human capital accumulation – and for a reorientation towards the tradable sector, with a special focus on exports.

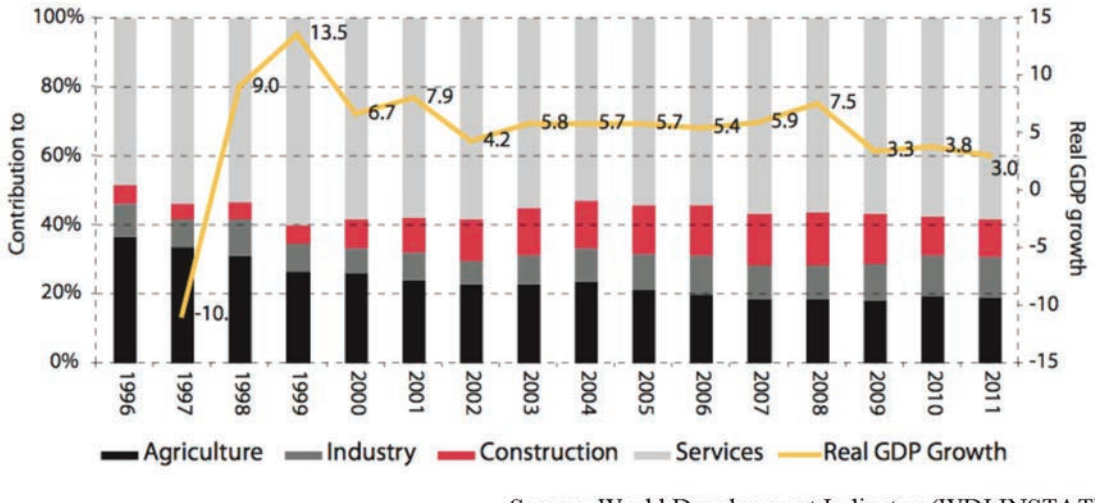
II. The pre-crisis model – consumption driven growth model and the production of non-tradable goods

The year 1990 marked the start of transition process of the Albanian economy from centralized planned economy to the market one. In the early stage of transition 1990-1992, Albania's real GDP decrease by a cumulative 39 per cent. With the introduction of macroeconomic stabilization policies and due to the gain of efficiency resulting from liberalization measures, the Albanian economy experienced a sustained economic recovery, averaging an annual growth rate of 9,3 % per cent between 1993 and 1996. The desire for rapid wealth accumulation, coupled with the inability of the economy to absorb the available funds and financial illiteracy, led to the creation of informal financial institutions (pyramid schemes) that yielded extremely high returns in cash for short-term investments. The perception of rapid wealth accumulation in a short period of time resulted in a rapid increase of domestic demand fuelled by household consumption. The fall of these pyramid schemes was the first shock of Albanian economy, which leads to the crisis of 1997. This event proved to be very short lived as the annual growth rate of real GDP one year later reached 8,6 per cent. In following years, growth increase stabilized around an average of 6 per cent until the onset of the financial crisis.

It is very interesting to find out the sources of such impressive economic growth in order to better understand possible implications for the future. Like the other centrally planned economies, the resource allocation was made in line with the state's central planed priorities rather than market efficiency. The reallocation process, together with improvements in the productivity of the factors of production, is what shaped the growth economic model, biasing growth towards some sectors of the economy at the expense of others. As a study of (Kota,2009) shows, the industry sector dropped to a 7.6% of GDP in 2009, from 39 per cent at the beginning of the transition process, cause of low levels of efficiency, and a lack of market demand. In contrary, the construction sector expanded

considerably from about 3 per cent of the GDP in 1990 to 14,5 per cent in 2009, due to a high demand to for residential housing, much needed improvements in infrastructure, and support for other sectors that placed demand on capital, land and the labor force. The largest expansion happened in the service sector whose share increased from 33 per cent to 63 per cent during period 1990-2009. Agriculture expanded from 23 to 32 per cent during 1990-1997 , it had shrunk to 19 per cent of the GDP by 2009. This composition of the economy's sectors initiated a reallocation of the factors of production in line with market demand. A research of Kota,2009 based on the methodology of Khan, 2004 suggests that only after 2000 the capital stock has played an important role in economic growth, with Total Factor Productivity continuing to be an important determinant of economic growth. TFP fell dramatically during the sharp contraction of 1990-1992, to increase substantially during recovery period of 1993-2003.

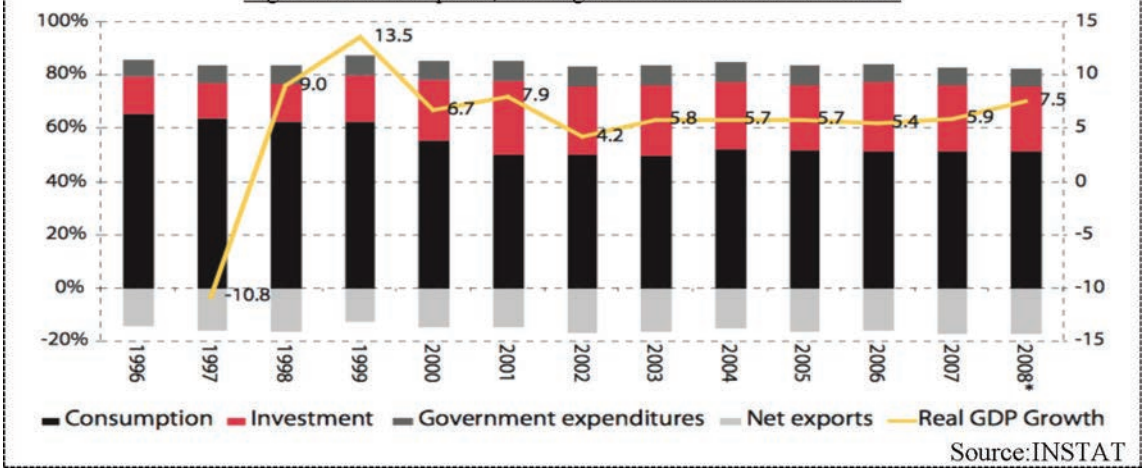
Figure 1 Non tradable sector – the key boost to economic growth



Source: World Development Indicators(WDI,INSTAT)

In line with theoretical observations and empirical evidence, the productivity gains from the rapid redistribution of the production factors provided a decreasing contribution in the early stages of transition. Domestic demand, in terms of elevated private consumption and investment, was increasing quickly, being the main driver of the sustain growth rate. Developments in these important elements of domestic demand were also affected by the speed of financial intermediation in the country. Credit to the private sector as grown rapidly since than, with the bulk of credit and private investment going toward non-tradable sectors, mainly construction. The size of non-tradable sector , in comparison to the tradable sector, contributed to a rapid increase in trade and current account deficits, as the production of the agricultural and industrial sectors of the Albanian economy could not match the increasing demand for consumption and investment. During the period 2004-2010 consumption goods accounted for around 32 per cent of total imports, with 53per cent being intermediate goods and only 14 per cent being capital goods.

Figure 2. Consumption, the largest share of domestic demand



Unlike other CEE economies, the most part of credit was financed by domestic resources, bank deposits and capital, rather than by foreign borrowed funds. However, more that two-thirds of loans were dominated in foreign currency. The downside of this growth model is that the fast process of intermediation adversely affected the balance sheets of households and companies, while simultaneously contributing to a weakening of the economy's external positions, since growth was supported by widening trade and current account deficits.

III. The financial crisis ended favorable run

After a long period with high economic growth, the last quarter of 2008 marked slow down of Albanian economy, maintaining this trend in present day. Due to the moderate level of financial deepening in Albania, and its low integration into the international financial market (the financial intermediation was mainly depended on domestic resources rather than loans from parent banks) , the financial crisis did not initially affect the economy heavily through direct channels. The economic growth rate continued to be positive, but in low levels.

A slowdown in the European economy caused the reduction of foreign currency inflows, mainly remittances; the deterioration in household and private sector balance sheets resulting from depreciation and a sharp slowdown n financial intermediation due to liquidity problems, caused by fears of contagion, supposing that the crisis could spread into the Albanian banking system as well; impact negatively on aggregate demand and economic activity. The domestic financing sources of Albania's so far successful economic growth were seriously affected by the crisis. Credit growth shrank from an annual 53 per cent in 2007, to 25 per cent in 2009, and 3 per cent in 2012. As a result, private consumption slowed down and private investment contracted, making domestic demand no boosting economic growth. Due to the crisis, the economy could not use its resources efficiently, leading to unemployment pressures and lower capital formation. Later, the economic activity was hit by the slowdown in domestic credit growth as well as a lack of financing for private investment.

The current situation of economic activity, chronic current account deficits and a weakening in household and private sector balance sheets, were worrying signals that must be reversed in the long run. The Albanian economy must identify new sources of sustainable growth, as the existing ones are exhausted and have become as a matter of fact less sustainable. Increasing investment in tradable sector, especially in exports, is crucial to balance the current account in future and put the Albanian economy on a sustainable path of economic development.

The private sector was the most efficient engine of economic activity. The crisis and its consequences opened a new window of opportunity for the further growth of the country. The

current model of growth based on consumption-driven and credit-based -overall savings-investment balance of the household sector and the financial balance sheets of agents in the economy.

Despite positive pace of growth, on-target inflation, and an exchange rate close to the medium-term equilibrium, the crisis has left its mark on the Albanian economy. The past model of growth succeeded to maintain economic expansion during the transition process, but it did so by introducing vulnerabilities that cannot be viewed as sustainable in the long run. By the end of the crisis, the current account deficit had narrowed, but it still continues to be high. The medium term-development of financing sources, especially remittances, remains questionable limiting the contribution that private consumption can make to future economic growth as compared to the pre-crisis level.

Accordingly, there is a need to identify a new long-term economic growth, capable of absorbing financial resources- particularly from abroad- in new and innovative ways, and generating economic growth without producing the negative externalities of the old model. The crucial step to overcome the problems of underused capital, the slowdown of credit growth, the high unemployment rate, unused agricultural rate, etc is finding efficient ways to increase the productivity of production factors and to combine them more efficiently. The first step in this regard is the identification of the competitive advantages that the Albanian economy generates and the acceleration of structural reforms in light of these priorities. The analysis of competitiveness of Albanian economy show that the structural and institutional problems are more obstacle than economic ones.

Constrained by the circumstances of an economy that has just moved out of the transition to emerging market status , requires political commitment and broad social understanding and support for continues and long term development from all economic agents. The following section is to present the characteristics of a new growth model for Albania.

IV. The new growth model for Albania

The positive experience of economic development thus far indicates that Albania has the right capacities to grow, but only if it succeeds in shifting to a new economic model - investing heavily in technology adoption, innovation and human capital, while achieving a reorientation of financial resources.

Economic developments in Albania, as in other emerging market economies, have confirmed that Total Factor Productivity has been the main contributor to growth during the process of transition toward a market-oriented economy.

Several comparative advantages yielded by favorable geographic location, in the areas of tourism and agriculture, and by endowment in natural resources relating to electricity, mining and supporting industries, have yet to materialize or take off, despite several attempts to make them attractive through special governmentally supported programs. Lack of, or low quality of physical and market infrastructure along with slow structural reforms in markets for factors of production (land), and the lackluster foreign direct investment in these traditional sectors, have prevented an increase in employment and labor productivity and failed to create economies of scale. The same is true with respect to the adoption of new technologies and the development of human capital. Competing with similar or more advanced economies, Albania has focused on factor-price competitiveness. Policies should develop particular economic programs and proper capabilities to increase the productivity of its factors of production up to the point where they become economically profitable for the current price from the investors' point of view.

New growth models link the competitiveness of the economy to its ability to generate innovations and improve productivity through human capital. The competitiveness of a country is not related to its monetary wealth, but rather to the ability of its human capital to increase its productivity faster than its costs. In this context, it is worth emphasizing the crucial importance of education as the key element of investment for the improvement of human capital. The history of economic development shows that countries that have invested in education are currently the most developed countries of the global economy.

This process is very important to further improve labor productivity in Albania. Long-term economic growth should be based on ongoing enhancement of productivity. Improvement of within sector productivity growth is the new challenge for Albania. More emphasis should be put on investment in output-oriented sectors with high productivity growth. Just using human capital, cannot be the only solution. Boosting domestic production is crucial to the ability of the economy to support internal demand for investment and consumption. The ability to generate extra income depends on the size of the economy. In this respect, *for a small open economy, exports are of imperative importance, with the tradable sector becoming the keystone of the future growth model.* The efficient reallocation of economic resources will be reflected in a fine balance between domestic demand-driven growth and an export-driven model.

Reorientation of the economy toward the export sector relies on the country's ability to improve its competitiveness. Exchange rate readjustment following the financial crisis has already occurred; as a result the export sector should find other ways to enhance its profitability, rather prices differences. More focus should be put on enhancing external competitiveness through an improved business environment and cost competitiveness. The above-mentioned reforms on human capital improvement and technology adoption are very relevant for boosting the export sector. The macroeconomic policies need to focus on improving the attractiveness of the economy for strategic long-term investors so that financial inflows and domestic lending are channeled to the tradable sector.

The banking sector and financial intermediation affects aggregate economic performance. An increase in bank capital may increase their loan volumes, thus triggering an increase in investment and GDP. During the international financial crisis, the significant slowdown in worldwide economy activity, caused an increase of non-performing loans. Combined with decrease of assets prices, rendered banks more risk adverse, thus less willing to lend to different sectors of the economy, which in turn exacerbated the economic slowdown. The restructuring and resumption of lending activity cannot take place without first cleaning up the non-performing loans. The investment and credit allocation process, composition of credit portfolio, and the landscape of economic growth must be achieved by pressing banks to improve their financial situations and increase their credit assessments and risk management capacities. Improving business environment, market institutions and market efficiency will allow for accurate pricing of opportunity costs and risks, will improve the process of credit allocation in the economy and lead to the desired sustainable model of growth.

Future orientation of Albania economy must consider the regional perspective. As a small economy in terms of markets and demographics, with limited scope for economies of scale and clustering, it is located in a region dominated by similarly endowed (in terms of markets and demographics) small open economies which offer and promote similar comparative advantages and share the same political, social and economic goal of EU membership. The story of Albanian economy – to some extent describes the story of the entire Balkan region that we are used to call South East Europe. All economies of the region are small, open economies with almost the same foreign trade partners. If one were to compare the Pre-Accession Economic Programs (PEPs) presented to the European Commission, they all claim to rely on an export-led growth economic strategy more or less in similar sectors and products, mostly because countries in South East Europe

have very similar economic structures and trade patterns. Under these uncoordinated models, regional trade integration has the potential to result in a Cournot or Bertrand model of competition for the same markets and investors. This will not only provide disincentives for cooperation and/or trade diversion but, most importantly, will potentially transform the entire region into a region of losers, causing the failure of individual models in each economy. Thus, it is hard to expect tangible benefits from a regional trade agreement and successful economic stories given these current conditions.

Regional cooperation calls for the identification of win-win strategies of country specialization and trade in goods and services. These are characteristics that the region can offer much better than its individual economies. Put in other words, it calls for economic structural cooperation, through the identification of country-level comparative advantages and industry- level competitive advantages from the regional overview rather than from national points of view.

IV. Conclusions

The growth model of Albanian Economy prior to the crisis has been e success story, with fast growth rates, welfare improvement, and a total factor productivity upsurge. However, the recent financial crisis revealed many domestic imbalances that had emerged as a result of the transition growth model. The economy was oriented toward the produce of non-tradable goods and services, which increases domestic demand much faster that aggregate supply. Remittances have been strongly support the economy, but in this process they have become dysfunctional, being oriented mainly towards consumption rather than investment.

Financial crisis hit the sources of this successful expansion, so the need to orientate the economy toward a new strategy of growth is imperative. Technology adoption and innovation should be the new cornerstone of new growth model. In this process developing and accumulating human capital will be crucial, as a well educated labor force will be able to use more advance technology effectively.

The banking system will have to play an important role in this new model of growth. Its financial intermediation must support the development of new trades and industries away from the current focus on non-tradable activities. A new model of banking business should be relied on closer relationship with business and stronger research, risk assessment and risk management capabilities.

Finally, the Albanian economy should restructure to find its place in the region, as the region finds and redefines its place in the world economy. This includes not only the continuation of structural reforms but also a reconfiguration of its growth model from the regional perspective, so that economic development policies of the Albanian economy are compatible with regional comparative advantages and even act as complementary programs to reinforce and support them.

References

1. *Balliu, Q. (2007)* "Enhancing the impact of migrant remittances in Albania by creating an integrated migrant remittances system". *Study on Remittances for Potential Local Economic Development in Vlora Region.*
2. *Demekas, D., Horváth, B., Ribakova, E. and Wu, Y., (2005),* "Foreign Direct Investment in South Eastern Europe: How (and How Much) Can Policies Help?", *IMF Working Paper No. 110*
3. *Gëdeshi, I., Mara, H. and Preni, X. (2003),* "The encouragement of social-economic development in relation to the growth of the role of the remittances". *Tirana: Centre for*

Economic and Social Studies.

4. *Hall, R. and C. Jones (1999)* "Why Do Some Countries Produce So Much More Output per Worker than Others?" *Quarterly Journal of Economics, Vol. 114, pp. 83-116.*
5. *Ibrahim I. (2002),* "On exports and economic growth" *Jurnal Pengurusan* 54 Chapter 1: The Albanian economy: The need for a new growth model *21, pp. 3-18.*
6. *Ibrahim I. and C. R. MacPhee, (2003),* "Export externalities and economic growth" *The Journal of International Trade & Economic Development: An International and Comparative Review Volume 12, Issue 3, pp 257 - 283*
7. *James,R at al (2014)"*25 years of transition post communist Europe and the IMF" *Regional Economic Issue special report, IMF . October 2014.*
8. *Judson, R. (1998).* "Economic growth and investment in education: how allocation matters". *Journal of Economic Growth, 3, 337-359*
9. *Kota V., (2009),* "Determinants of economic growth in Albania", *Economic Bulletin, Bank of Albania, volume 12, no.4, pp. 108-119.*
10. *World Bank, (2010),* "Albania, A new agenda of growth", *Country Economic Memorandum*
11. *World Economic Forum (2010; 2011): Global Competitiveness Reports for 2011 and 2012*

THE IMPACT OF THE TRANSITION TO THE DEVELOPMENT OF THE INDUSTRY SERBIA

Milena Lutovac,[1]

Miloš D. Lutovac[2],

Nebojša Jerinić[3],

Vladimir Todorović[4]

Abstract

The industry is one of the most important industries since it strongly influences the development of all other production and non-production activities. That is why its importance for the economic and overall development of any country is very important. The process of globalization, in which the world is in the last few decades has led to significant changes in the industrial map of the world.
Serbia has belatedly entered the transition process. The transition in Serbia has been significantly hampered by political factors, conflicts in former Yugoslavia and the disintegration of Yugoslavia. It is of course had bad consequences, but they are at least able to take advantage of different transitional experiences of former socialist countries, with some of them in 2006 and 2007 became members of the EU. Bearing in mind the place and importance of the industry in the economic development of most countries, it is inexplicable why Serbia in the second phase of the transition process led economic policies, which led to the complete collapse of the Serbian industry. That model of development has had catastrophic consequences for the industry, as evidenced by the fact that the level of physical volume of industrial production in Serbia has not yet reached even half of realized production from the distant 1990. Given that the most advanced countries in transition apply efficient development model, in which industry and exports are a key position, Serbia in the next period should use their good experiences.

Keywords: *industrial policy, deindustrialization, transition, development model.*

[1]Milena Lutovac, PhD student, Faculty of Economics, University of Belgrade, e-mail: milenalutovac@yahoo.com
[2]Miloš D. Lutovac, PhD student, Faculty of Geography, University of Belgrade, e-mail: milosdlutovac@yahoo.com
[3]Nebojša Jerinić, PhD student, Faculty of Law, University of Belgrade
[4]Vladimir Todorović, PhD student, University of Business Studies Belgrade

Introduction

The development of the Serbian social structure can only be developed through continuous evolution of the society which is in the constant state of change. These changes can be divided into quantitative (changes in the percentage and share of different social groups and strata) and qualitative (improvement of the relations between different social groups). Several decades of industrialization and urbanization during the existence of the former state, the Socialist Federal Republic of Yugoslavia, determined the general direction of these changes. Particular social groups grew bigger at the expense of others. The main social mobility directions were: from rural to urban, from being a farmer to becoming a member of the working class and from all social strata and groups to intellectual elite. Although many developing countries strive to control structural changes, the most of them have not succeeded yet. Some think the active role that the government has in the economic growth promotion an industrialization does not have good results because, as they say, the experience from the past has shown that such a policy is often too expensive and does not fulfill most of the prescribed goals. A slowdown of the Serbian industry development began in the 1980s. Because of the well-known events from the last decade of the twentieth century, the Serbian postwar industrialization model collapsed. Unfortunately, due to the inadequate transition model and bad choices, Serbian industry faced a severe crisis, whose end is nowhere to be seen. The analysis of the changes in Serbian economy during the transition period will be presented in the rest of the paper.

Serbian industry in reforms - transition indicators

The state of Serbian industry and its economic development assumptions are tightly connected with the Serbian economic system characteristics and the results achieved from the institutional reforms. It is not simple and easy to evaluate the state and progress which the industry achieves in the period of transition while transforming into market economy, but it is vital for the national economy since it is a guideline for the implementation of systemic reforms and narrowing the transition gap. It is well known that industrialization was the basic method of economic development after the Second World War. National strategy for industrialization was based on spurring the development of the heavy industry and import substitution. Achieved industrial growth and development level were the basic driving force of progress and prosperity of the former SFRY and other countries which had the similar path of economic development. Because of that, the idea of industrialization as a model of accelerated economic growth became widespread and had been widely accepted until the 1970s. However, the strong industrialization period in the territory of the SFRY began to weaken in the 1980s. The average growth rate of the domestic industrial product in the period between 1953 and 1965 was 13.4%, in the period between 1966 and 1980 was 7.1% and in the period between 1981 and 1990 it equaled only 1.0%. The fall of the Berlin Wall, the dismantling of the communist system and the dissolution of the bipolar international relations are some of the crucial global events in the late 1980s and early 1990s. The consequence of the collapse of the economic-political system in the communist countries was the fall of these societies into the state of total social confusion and confusion over system of values. Balancing between two confronted blocks, building its high status in the so-called 'third world countries' and being a non-aligned country for decades, the SFRY became a victim of the constellation of power change and growing nationalism, which has been suppressed for decades. The crash of the postwar industrialization commenced with the dissolution of the SFRY, i.e. with the decomposition of the single economic area and single market. The dramatic industrial production level decrease is mostly the consequence of the sanctions imposed by the international community, the wars in the territory of the former SFRY and the suspension of the relations with the international community. Domestic industrial production in 1993 equaled one third of the domestic production in 1990. Between 10% and 30% of the capacity of the industrial sector was utilized, while the annual inflation rate reached a few hundred billion percent (Savić, 2009, 310).

The industrial crisis in the 1990s was so severe that only fundamental changes in the development strategy and industrial policy could lead to the long-term recovery and efficient industrial development in the following period. The bad model of privatization and inadequate transition strategy did not lead to the needed level of structural adjustment of the Serbian economy, i.e. industry. Instead of the fundamental changes, occasional structural changes took place, but they were partially implemented, altered or abandoned in a way that made the identification of real goals impossible (Adžić, Popović, 2005,173-200).

As it was mentioned above, due to the peculiar circumstances, Serbia entered the process of transformation only after the majority of other former socialist countries did so. In the period between 1994 and 2000, the average of the EBRD transition indicators for Serbia was 1.45 (Jovanović Gavrilović, 2012, 1-2). The radical political changes which took place at the end of 2000 made it possible to continue the transition process which the former socialist countries had been going through. Serbia chose a development model where industry did not play a significant role. New transition authorities opted for the full application of the Washington Consensus principles, which were based on the neoliberal concept of economic development. The key lever for building new transition model of economic development in Serbia were liberalization, privatization and deregulation (Savić, 2011, 32). In the period between 2001 and 2008 the industrial sector underwent the process of restructuring and privatization. During this period development was modest, the total industrial production level in 2008 being only 17% higher than the level in 2000.

Table 1. **Industrial growth rate in Serbia in % (2001-2008)**

	2001	2002	2003	2004	2005	2006	2007	2008	08/01
GDP		4.8	4.2	2.5	8.4	6.2	5.7	7.5	5.4	5.6
Total industry	0.1	1.7	-3.0	7.1	0.8	4.7	3.5	-1.1	1.7	
Manufacturing industry		-3.3	-2.8	-6.0	8.8	-0.7	5.3	4.2	0.7	0.8

Source: (Savić, Lutovac, 2012, 7).

In the period between 2000 and 2008 the economy of the Republic of Serbia was characterized by the high real gross domestic product growth, with the average annual rate of 5.6%; and in 2004 the GDP growth rate reached its peak with 8.4%. The high GDP growth was achieved thanks to the constant growth of the service sector (the average annual growth rate was 7%), in particular, trade growth (15%), transport and communications (13.2%) and financial intermediation (7.7%) (Savić, Lj, M. Lutovac, 2013, 8).

The economic reforms which the Republic of Serbia carried out in the transition period from 2001 to 2008 delivered significant results in terms of economic growth, but they led to the increased internal and external imbalances. The relatively high GDP growth rate in this period was followed by inflation, high unemployment rate, as well as the public finance deficit, deficit in trade balance and balance of payments, which made Serbia dependent on the foreign capital inflow. Dramatic economic growth from 2001 to the beginning of the economic crisis in Serbia was mainly based on the foreign capital inflow, assets gained through privatization, domestic demand and high level of import.

In the last quarter of 2008 Serbia faced the Global Financial Crisis. Serbia faced insufficient

foreign capital inflow, rapid drop of revenue from privatization and withdrawal of savings made by a certain number of citizens.

Table 2. **Development indicators in Serbia during the financial crisis**

	2009	[illegible]0	2011	2012 a)
GDP, millions of EUR	28,957	28,006	31,143	-
GDP per capita, in EUR	3,951	3,841	4,288	-
GDP, real growth rate, (%)	-3.5	1.0	1.6	-
Industrial production, (%)	-12.1	2.9	2.1	-
Export of goods, millions of EUR	5,961	7,393	8,439	3,346
Import of goods, millions of EUR	11,505	12,622	14,450	5,999
Commodity exchange deficit, millions of EUR	-5,543	-5,229	-6,010	-2,653
Current account deficit (% GDP)	-22.1	-7.9	-8.1	-10.2
Balance of payments, millions of EUR	-1,687	2,364	-929	1,802
FDI, net, millions of EUR	1,824	1,373	860	1,827
Number of employees, average, in 000	1,889	1,796	1,746	1,733
Actively unemployed persons (000)	730	730	745	763
Unemployment rate	16.6	19.2	23.7	25.5

Source: (Savić, Lutovac, 2012, 10). **a**) Jan-May

However, from a global perspective, positive trends dominated in Serbian economy in 2008. Consolidated state spending was reduced by 3.5%, and, from the macroeconomic point of view, this was considered a positive adjusting because it had limited the decrease in production (Aradarenko, 2011, 15).

The unfavorable trends which emerged in the first half of 2008 influenced macroeconomic trends in 2009. During 2009 a sharp fall in domestic demand and reduction of import caused the reduction of public revenue by 8% which was significantly larger than the production decline. The industrial production decrease of 19% at the beginning of 2009 led to drastic reduction of export, since export of industrial products makes 95% of total exports in Serbia. It is clearly seen that the financial crisis in Serbia was the most severe in 2009. The industrial production volume was reduced by 12.1% compared to the previous year. Unlike the year of 2009 which was very unfavorable, the trends of all indicators in 2010 were positive. Despite the obvious recovery, the majority of Serbian economic indicators did not return the pre-crisis levels.

Image 1. **Industrial production**

Source: http://www.makroekonomija.org/industrija/industrijska-proizvodnja-ii-2012/

Due to bad weather, in February 2012, industrial production was significantly reduced. Total industrial production was reduced by 12.8%, mining by 13.5%, manufacturing industry by 16.1% and power supply increased by 1.8%. The cumulative decrease in industry in the first two months was 7.9%, in mining 1.6%, in manufacturing industry 11.9% and power supply increased by 1.8%. Compared to June 2011, the industrial production volume in June 2012 decreased in 15 fields (the share of these fields in the structure of industrial production – 60%) and increased in 14 fields (the share of these fields in the structure of industrial production – 40%). Industrial production in the Republic of Serbia in June 2012 was reduced by 4.0% compared to June 2011, and compared to the average in 2011 by 2.0%. In the period between January and June 2012 industrial production was reduced by 4.2% compared to the same period in 2011. Compared to Jun 2011, the following sectors had the greatest impact on the reduction of industrial production in June 2012: Power, gas and steam supply and airconditioning, Basic metal production, Production of basic pharmaceutical products and preparations, Coal mining and Manufacture of electrical equipment (Savić, Lutovac, 2012, 8-10).

The concept of new industrial policy of Serbia

State plays a crucial role in successful functioning of market economy, especially in creating egalitarian and humane society. Most countries in transition endeavor to solve the lack of market mechanism, face the problems of efficient market functioning and the lack of necessary level of social justice. The countries, where industry falls behind, have special obligations in this respect. The altered global economic architecture created some new and reintroduced already existing dilemmas. What political and institutional reforms are prerequisites for industrial policies (IP)? What are the global expenditures and benefits of IP? Which IP are suitable for technologically catching up with the industrially developed countries? How can IP be coordinated on a global scale? Does the protection of intellectual property limit or facilitate the industrial catch-up?

Prosperous economies have had a different conception of economic policy for some time, which has enabled them to overcome the effects of the economic crisis. Now, the time has come for the new conceptual platform of economic and industrial policy to be defined. As far as Serbia is concerned, the standard recommendations from international financial organizations with respect to the continuance of the neoliberal approach to the economic policy with the focus on inflation, savings and the flexibility of the labor market are counterproductive since they lead to the further widening of the output gap, fiscal instability and difficulties in the state functioning. The new

conceptual platform of economic policy should have other priorities such as:

- real economy, instead of spending,
- investment, instead of borrowing,
- the activation of domestic resources for the production growth, instead of import.

The new conceptual platform of economic policy is a combination of industrial and macroeconomic policies, where industrial policies lead and macroeconomic policies follow. The new platform has to be in compliance with the global trends and must be able to face great and increasing global risks. The significant changes in question affect:

- capitalism model,
- the main focus of industrial policy,
- new priorities of the technological development (Dimitrijević, B, D, Đuričin, Đurić, Grujić, Petričević, Spasojević, 2013, p. 3).

On the one hand, the industrial policies are focused on the ultimate resources. On the other hand, they are focused on the high value-added products. Unlike the highly developed countries, which are undergoing the process of deindustrialization, the tendency of the developing countries is completely different. Here the share of industry and total number of the employed in GDP rapidly grows. In order to reach the state of highly developed economy as soon as possible, the developing economies have given the state a special role in industrial development, and primarily in the area of industrial policies. The active role of the state in industrial development is not protectionism, but a subtle state support for the branches of interchangeable products and new branches without any tendencies to abolish the market. The mass production of durable and non-durable goods is not the priority of industrial policies anymore because of the hypercompetition and 'The China Syndrome'. In order to become competitive in the international market, these countries must have the adequate technology. Export of the competitive and usually cheap products and import of modern technology which is usually expensive for the production of these countries often lead to the current account deficit which is financed by debt growth and which further causes a slip into the deficit in the capital budget (Savić, Lutovac, 2013, p.7).

In the new concept the state should pursue industrial policy, emphasizing that the industrial policies should lead and that the macroeconomic policies (monetary and fiscal above all) should follow them. The support of industrial policy for the products that have the comparative or (and) competitive advantages should be provided. Macroeconomic policy must be favorable to such industrial policy. Industrial policy should be in compliance with regional development policy, population policy and competitiveness policy.

The main task of the industrial policies should be production growth in the sector of interchangeable products which would lead to the decrease in import and increase of export, i.e. the sustainable state in the current and capital account.

Industrial policy includes industrial development policy, where the term "industry" includes the organization and strategic management of human and tangible resources. The goal of this policy is, above all, to encourage and provide the observation of structural adjustments and restructuring of companies, so that they could have the power to deal with the changes in the business environment and face economic challenges and the increased global competitiveness.

Transition through the legal perspective

Great attention in the transitional reforms is devoted, thanks to the development of economy and the rule of law and the industry of the rule of law, to the economic implications of the establishing of the rule of law and independent judiciary in its framework. Every national and international report on transition in the last ten years emphasize that the rule of law is the basic problem of the industrial restructuring in Serbia. Nevertheless, the questions of economic implications of the problems of the rule of law have not been sufficiently explored neither theoretically, nor empirically. Research should be focused on defining the conceptual framework and empirical testing of the economic implications of certain rule of law dimensions.[5]

The rule of law has clear economic functions: it protects the economic sphere from the political influence, the influence of the special interest groups, establishing the separation of legislative, executive and judicial power, provides political and economic stability and predictability, protects property rights and contracts in mutual relations between the private companies and also in their relationships with the state, provides the dispersion of the articulated interests of companies which reduces the influence and significance of interest groups and their individual interests. Therefore, the rule of law establishes the division of powers which protects property and contracts, controls special interests and interest groups which articulate them and thus dissolves the partnership between pseudo businessmen and the state, prevents interest groups from making decisions in the partnership with the state and prevents them from seeking political favors and other conveniences so that they could gain annuity based on these. The rule of law, in its complex and numerous dimensions, can be viewed as a basic public good which is provided by the state and whose mission is to create the environment which reduces uncertainties. In the long run, this encourages investment, entrepreneurship, specialization and thus leads to the growth of economic efficiency and social prosperity. [2]

In 2008, the severe economic crisis arose caused by deep, concealed and systemic problems. This crisis caused far-reaching economic development and in that way affected the state of economy in almost every country in the world. Economists and politicians rack their brains trying to find its cause in order to find the way out. The dispute between the advocates of the so-called philosophy of liberal (and neoliberal) economy ("the invisible hand of the market as regulator") and the advocates of the state with the strong regulatory function and strong monitoring function in functioning of the prescribed regulations ("the invisible hand of the state").

---

[5] **A**. Jovanović, Ekonomija vladavine prava i Srbija - otvorena pitanja, Pravo i privreda, br. 4-6, str. 113, Beograd *2011. godine 2 Ibidem.*

Advocates of the neoliberal approach do not pay much attention to the stock market crash which can be compared to the Great Depression in 1930s. They try to asscribe this crash to the weakness of the state and not to the weakness of the market and persist in supporting the logic
of "market fundamentalism". [6] It seems that this state is best described by Stiglitz's note that the fall of the Berlin Wall showed that communist economy could not function and that the collapse of *Lehman Brothers* showed that uncontrolled capitalism cannot function either. Stiglitz showed the

disastrous effect of such economic and legislative policy which are promoted by the IMF. The same effect arises from the so-called "shock therapy" of rapid privatization during which national distinctive features are disregarded, as well as the lack of the state institutional capacity for the process regularity and for the protection of property and contract rights, in order to establish the same economic and legal environment as soon as possible ("turbo capitalism"). [7]

The doctrine "market is the best regulator" proved to be wrong (it functions in theory, but not in practice). Everybody wanted the minimum of state regulation and they inflicted damage to the whole world. Regulation is very important because it reflects on the whole global economy. Stiglitz emphasizes that he is not optimistic about the question whether something will change. Why? Because there are certain interest circles which insisted on deregulation and thanks to that made a lot of money which they later invested in political processes. They might have not invested well in the capital turnover, but they invested well in politics and got not just the measures against regulation, but also great help for the banks in crisis. Now, they are trying to use this capital to prevent regulation. We should not forget that the original capital accumulation and crucial economic categories in the USA were created with the help of the state – the Internet, medicine and many others. They later turn to private funding, but the state is the catalyst.[8] Similarly, S. Tasić concludes: Financial market, as it is by its nature market of immanent imbalance which destabilizes economy, is certainly an example of market which has to be strictly regulated, and therefore its deregulation is certainly an illusion. The fatal role of market regulation which is insufficient and of bad quality, market fundamentalism philosophies and certain oversights which the state had and the state regulatory institutions have taken its toll in the economic crisis at the beginning of the century whose proportions still cannot be perceived, but it is already being compared to the consequences of the Great Depression in the 1930s. Stock market magnate G. Soros reveals the role of market fundamentalism in this market by saying: "The key feature of the fundamental understandings lies in the fact that they are based on the proposition evaluation. For example: if some claim is wrong, then the opposite claim is considered valid. It is this logical fallacy of exclusion of the opposite standpoint, as a priori wrong, that is the foundation of market fundamentalism, as one of many understandings of market and market economy. The fact that the state has always interfered in economy led to negative consequences. Not only does this stand for centralist planning, but also for welfare economics and Keynesian management. Based on such a banal idea market fundamentalism comes to the totally illogical conclusion: if state interventionalism is defective, then free market is a real perfection."[9]

The origin of the judicial system is highly correlated with the quality of legal regulations and with its economic effects. Namely, it is believed that the character and effectivenessof the economic system in the world can be partially ascribed to the differences in the origins of the legal systems.

---

[6] Institut društvenih nauka **M**. Fridman, Kapitalizam, Beograd i sloboda 2009, N,. str.Sad 11 1996-25. ; V. Vukotić, „Filozofija istorije krize“, Kriza i globalizacija,

[7] **M**. Vasiljević, Privreda i vladavina prava, Pravo i privreda, br. 4-6, str. 17-43, Beograd 2011. godine

[8] Dž. Štiglic, Jntervju“, Politika 06.07.2009, 3.

[9] S. Tasić, Višak propisa uzrok krize, NIN, 3085/11.2.2011, 26-29.

Thus, the question of causality is raised, i.e. if the legal systems produce economic outcomes or vice versa. Our conclusion is that the legal systems evolve as a result and a subsequent cause of different economic systems and their efficiency. Different economic systems impose different demands on legal institutions which has practical implications for institutional restructurig. [10]

However, some claim that the relationship between the rule of law and economic indicators (economic growth, level of investment etc.) and the relationship between the rule of law and market eonomy are not clearly determined or directly conditional. Research which is taken into consideration confirms that law enforcement has greater significance for institutional development and economic

efficiency than the quality of law.[8]

One of the main problems or causes of the problems in the transition process in Serbia are destroyed and weakened institutions (and the society itself and especially the state) which established and fostered the authentic and true value system. In the last 25 years, and especially after 2001, the functional level of the state institutional capacity was not maintained, which was more or less amortized unsuccessfully by occasional personal, organizational, structural and various changes (which were called the reforms in the function of the modernization of the state and society, while they actually were inconsistent, improvised and hasty restructuring of the state bodies in compliance with "the measures of the current ruling elite"; this was done by the unselective and imprudent adoption of the institutional solutions of the highly developed administrations although domestic environment for these solutions was not adequate and thus the prerequisites and sustainable capacity for their proper application were non-existent as well as the desired effect). Instead of the rule of law which started emerging in the substantial and not just formally established institutional framework of one state, during the transition period in Serbia the rule of the people was imposed, i.e. the rule of the low proprietary profit and interest of the central part of a party which was proclaimed to be the public interest and common good. Such an interest, supported by the ruling class, intentionally weakened and destroyed the institutional capacities of the Republic of Serbia in order that the interest of the individuals to be put forward. Thanks to this wrong formulation of the concept of the common good through which the interest of the newly established elite was promoted, the concept which Stiglitz calls "turbo capitalism" was "justified" and introduced into the Serbian society ridden with the small-town logic and mentality altered after the dissolution of the SFRY, wars in the 1990s, imposed economic sanctions and wide-spread anxiety of the whole nation.

The Heritage Foundation index of economic freedom is in compliance with the economic freedom in 1996. The property rights protection indicators show the rule of law, as it is one component of economic freedoms. Among these indicators, we can find judicial independence, corruption in judiciary, the level of property rights protection, contract execution and the risk of expropriation. The ranking of Serbia with respect to the level of property rights protection is really bad and the judiciary system evaluated as highly inefficient.

In 2011 Serbia scored 40 out of 100 points for the property protection level. The task of the eonomic freedom index is not to simply rank countries, but to evaluate the correlation between the econimic freedoms and econimic prosperity (or, more precisely, the changes in economic growth). [9]

---

[10] **A**. Jovanović, Ekonomija vladavine prava i Srbija - otvorena pitanja, Pravo i privreda, br. 4-6, str. 113-125, Beograd 2011.godine. 8 *Ibidem.*

Along with the economic freedom index, the international organizations evaluate transitional progress and constantly redefine and refine transition indicators. The indicators which are used among the EBRD indicators are the ones which evaluate legal transition and some aspects of the rule of law in its framework. According to this evaluation, Serbia, compared to other countries in transition, has made some progress, but there have been no significant improvement. Furthermore, the rule of law is one of the indicators used in the research of quality of the state management, i.e. the effectiveness of the government. As far as the rule of law is concerned, Serbia is 12th among the 13 countries in transition – Albania, Bosnia and Herzegovina, Bulgaria, Hungary, Macedonia, Montenegro, Poland, Romania, Slovakia, Slovenia, Croatia and the Czech Republic.[10] The aforementioned evaluated state is undoubtedly caused by the negative impact of a kind of discontinuity which is depicted by the historic fact that from the beginning of its modern history (which is taken to be 1804 when Serbia started the uprising for independence from ottoman rule) up to now Serbia has had 223 Governments which, as the executive power, have governed the state. In

statistic terms that means 223 Governments "ruled" the country during approximately 211 years of the Serbian statehood and the fight for the statehood. None of them lasted long enough to provide sufficient level of quality for anything and this is certainly the existence of continuity.

The national reports on the transition results in Serbia indicate that Serbia has a problem with the rule of law. From the economic point of view, this means that Serbia also has a problem with establishing the market economy model. [11]All the reports on this matter claim that the rule of law, i.e. law application and inefficiency of judiciary are a huge problem.

Transition involves general institutional reconstruction, but institutions cannot change their quality without the rule of law, nor can the rule of law be established without competent institutions. It is paradoxical that the rule of law is necessary prerequisite for the implementation of the reforms of good quality at all levels, but that it is simultaneously created and applied as a part of the reforms.[12] The rule of law can be completely revived only within the framework of developed institutional system of a country, through the proper drafting of laws and their application by independent and developed institutions, through passing a law in order to achieve clear, ultimate goals determined by the ruling class and which are in interest of the general welfare (public interest and common good). Only in this way can a reform of every area of one former, socialist and self-governing country be fully and successfully carried out. It can only be done outside the framework of institutionalism, outside the framework of the rule of law, without the interest of the general welfare created by the majority. Transition leads to the crash of the previously existing value system (in every field) and the failure of establishing new and valid value system. It enables reestablishing of quasi-value-system. This system is a sum of the heterogeneous, a parody and mixture of the remains of the traditional (which, at any cost, in the name of the protection of national identity, rightfully survive, but in the inadequate social environment of tectonic transition changes they often and easy regress to, from the social perspective, pathological occurrences of chauvinism and heterogeneous kitsch) and "the new" and "the modern" which is accepted unselectively and without valid evaluation because of the global progress of consumer mentality and globalization. It is accepted as unequaled and necessary new "value" from developed systems and societies, regardless of the fact that its standard is not in the spirit of the true authentic values of our national soul and society.

[11] **A** Jovanović, *Developing the Rule of Law in Serbia and Market Economy,* in *Rule of Law in the Market Economy-Two Aims of Transition*, Center into Research into Post-Communist Economies, CRCE New Series 25, p. 57-63, London.

9 *Ibidem*.

10 *Ibidem.*

[12] **A**. Jovanović, Ekonomija vladavine prava i Srbija - otvorena pitanja, Pravo i privreda, br. 4-6, str. 113-125, Beograd 2011. godine

Conclusion

The solution to the problems of grave economic crisis in Serbia requires tracing of the right and authentic ways out. The greatest obstacle on this path is insufficiently developed authentic value system (which needs to be developed as a paradigm of the traditional values of our society and the proper standards of the modern world and highly developed societies). What is also considered an obstacle are insufficiently developed economic infrastructure, low level of technological development, unemployment, inflation and many other problems. Hundreds of thousands work places in economy is lost, and thousands of jobs are transferred from industry to other sectors. The inadequate role of the state in economic and social development in Serbia caused the failure of the reforms implemented in the last decade to create a favorable environment for realization of efficient policy.

The transformation process depends to the great extent on the inflow of foreign direct investment to the economy. The relation globalization - foreign direct investment - transition is connected by a certain chain reaction. The recognition of this cause-and-effect relationship is an important premise of the efficient long-term development. This is one of many processes we have to bear in mind if we want to become an integral part of the European and global market.

Literature

1. Adžić, S., D. Popovic (2005), "Fiscal system and fiscal policy-their contribution to improving the competitiveness of the economy: the case of Serbia", in Economics ,, "No. 1, Zagreb.
2. Arandarenko, M. (2011) ,, auxiliary strategy for recovery from the crisis in Southeast Europe: Assessment Study: Serbia ", the International Labour Organization, the Technical Support Team decent work and the Office for Central and Eastern Europe, Budapest.
3. Dimitrijevic, B., D., unrest, Đ., D. Draginja B, Grujic, G. Petricevic, T., Spasojevic (2013), "The draft strategy of reindustrialization Serbia, the working group for reindustrialization," National Council for Economic Recovery
4. Draskovic B. Review - The effects of privatization in Serbia, the Social Council of the Faculty of Economy of the Republic of Serbia, Belgrade, 2011.
5. M. Friedman, Capitalism and Freedom, N. Sad 1996; V. Vukotic, "The philosophy of history of the crisis," Crisis and globalization, Institute of Social Sciences, Belgrade 2009, p. 11-25.
6. http://www.makroekonomija.org/industrija/industrijska-proizvodnja-ii-2012/
7. A Jovanovic, Economy rule of law and Serbia - open questions, Law and Commerce, no. 4-6, p. 113-125, Belgrade 2011.
8. Jovanovic A. Developing the Rule of Law in Serbia and Market Economy, and Rule of Law in the Market Economy-Two Aims of Transition Center into Research into Post-Communist Economies CRCE New Series 25, p. 57-63, London.
9. Jovanovic Gavrilovic, B. (2012), "Green Growth as a generator for Overcoming the Crisis. in Economic Analysis 45, Belgrade.
10. Ristic Z., D. Rajkovic, Mančić S., D. Rajic, effects of privatization in Serbia, the Social Council of the Faculty of Economy of the Republic of Serbia, Belgrade, 2011.
11. Savic Lj., (2009), Industrial Economics, CID Faculty of Economics, Belgrade.
12. Savic Lj., (2011), Transition of Serbian economy: the crisis of industrial development, CID Faculty of Economics, Belgrade.
13. Savic Lj., M. Lutovac, (2012), "Does the end of the crisis Industry of Serbia" in Economic Policy and Development, Faculty of Economics, Belgrade.
14. Savic Lj., M. Lutovac, (2013), "Industrial Policy-Serbian views and perspectives" in

Economic Policy and Development, Faculty of Economics, Belgrade.
15. J. Stiglitz. "Interview", Politika 06.07.2009. 3.
16. S. Tasic, excess regulations cause of the crisis, NIN, 3085 / 11.2.2011, 26-29.
17. M. Vasiljevic, Economy and the Rule of Law, Law and Economy, No. 4-6, pp 17-43, Belgrade 2011.

ENTREPRENEURIAL ORIENTATION IN SEVERAL STAGES TRANSITION ECONOMIES – COULD CULTURAL PROFILES EXPLAIN THE DIFFERENCES?

Prof.Dr. Adriana Zait[176],
Andres Felipe Uprimny[177],
Prof.Dr. Hanno Poeschl[178]

Abstract

Entrepreneurship level varies between countries and is positively correlated with a country's rate of economic growth, as previous studies have shown. Entrepreneurial orientation, as one important antecedent for entrepreneurial intentions and entrepreneurship, is encouraged and developed with various efforts, including through higher education programs. Although much work was devoted to explaining individuals' entrepreneurial orientation, results are still mixed, the determinants of this construct being quite heterogeneous – personal or individual, family, organizational culture, education, regional subculture (mainly ethnic and religious), national or country layer (cultural dimensions). Through our study we bring a new perspective on individual entrepreneurial orientation, analyzing it in correlation with a new construct, the individual cultural orientation profile (which can largely vary within the same country and region). We used a questionnaire based survey and measured the two variables of interest using the Individual Entrepreneurial Orientation scale suggested by Bolton and Lane and the Cultural Orientation Framework developed by Philippe Rosinski. The sample population consists of bachelor and master students from five EU countries, one developed – Austria and four transitional ones – Czech Republic, Poland, Romania and Slovakia. The selected countries have different classifications according to the Global Competitiveness Report - innovation driven economies (Austria, Czech Republic and Slovakia), transition from efficiency driven to innovation driven economies (Poland) and efficiency driven economies (Romania). We expect individual cultural orientation profile and entrepreneurial orientation to be correlated, providing a more complete possible explanation of differences in entrepreneurial activity at country level. Another implication is that we could suggest a new way of improving entrepreneurial education by taking into consideration people's individual cultural profiles and offering tailored training.

Key words: entrepreneurial orientation, cultural orientation profile, transition economies

[176] University Alexandru Ioan Cuza Iasi, Romania; azait@uaic.ro
[177] Lauder Business School, Vienna, Austria; andresfelipe.uprimny@hotmail.com
[178] Lauder Business School, Vienna, Austria; hanno.poeschl@lbs.ac.at

1. Introduction

Entrepreneurship becomes each day more important to nations and companies. Various studies display a clear relation between entrepreneurship and economic development (Achs et al, 2003), employment (Birch, 1987) or innovation (Reynolds, 1994). Its virtues also include (Bruyat et al, 2000) creative thinking, the creation of new businesses and the survival of nations during economic recessions. This is why fostering of entrepreneurship should be in the agendas of nations, organization and educational institutions. A great amount of studies show that entrepreneurship is influenced by different elements present in any individual, and depending on the intensity of these elements, he or she has more or less entrepreneurial propensity. One of these elements is culture, defined by Hofstede (2001) as a collective programming of the mind that separates the participants of one group of individuals from another. The degree of influence of culture on entrepreneurial propensity is not easy to evaluate, but most academics agree that culture plays an important role (Shane, 1992, 1993; Shane et al, 1995). If culture plays a role in the degree of entrepreneurship orientation, it could be possible for educational institutions and organizations to develop tailored coaching or teaching sessions to increase entrepreneurial propensity from a cultural perspective. This is the objective of our study – to investigate the relationship between entrepreneurial orientation and the cultural orientation profile at individual level.

Currently, the Cultural Orientation Framework (COF), elaborated by Philippe Rosinski from the Hofstede´s cultural dimensions, is one of the few tools to asses and match cultures. This tool was developed with the aim to develop coaching from a cultural perspective since it measures the cultural orientation, which is the predisposition to think, feel or act that is culturally determined (Rosinski, 2003). On the same line, since the internal COF was measured, a measure from the same internal level for entrepreneurship was needed. We decided to use the Internal Entrepreneurial Orientation (IEO), as employed by Bolton et al. (Bolton et al, 2012). We will shortly present the literature review for the two constructs of interest – COF and IEO – and then the research methodology and main results.

2. Literature review

Entrepreneurship is a wide used word, but despite its popularity, definitions are rather heterogeneous, with several meanings (Kobia, 2009). A good definition is provided by the Oxford dictionary, calling an entrepreneur “an individual who creates a venture, taking risk in the expectation of profit” (Oxford dictionary). The word “entrepreneur” has its roots in Richard Cantillon’s work (Brewer, 1992). In one of his essays Cantillon used the word entrepreneur to describe a type of person labelled “risk-taker”, who undertook certain risks to achieve an enterprise. Later in 1723, this word would appear in the French dictionary and would mark the beginning of the word entrepreneur in our society until today.

Entrepreneurship has been intensively studied for the past centuries. However it would not be until the beginning of the 20th century that entrepreneurship would be popular and until a wide amount of research began to be done. (Muljadi, 2011) In 1934, Schumpeter would develop his ideas towards “creative destruction”, a revolutionary idea that would convey to entrepreneurship a great significance for the years to come. Schumpeter argued that an entrepreneur would be someone who adopted changes and crafted new ideas into usable inventions, in other words, would be someone who innovated. The only way an entrepreneur could do that would be by destroying old paradigms and beliefs and placing instead new innovations. He called this process of innovation “the gale creative destruction” (Schumpeter, 1934). This idea served to explain how industries evolved and grew, why and how companies grew successfully or why companies died. Besides Schumpeter, two additional researchers contributed to the development of entrepreneurship - Frank Knight and Peter

Drucker (Knight, 2005). They both argued that an entrepreneur was someone who was able and willing to risk their career path, together with his or her financial securities in the expectancy to further develop an idea.

There seem to be two major approaches that rein the issue of how entrepreneurship is generated. The first approach focuses on the internal traits of the human being, while the second approach focuses on the external factors, such as the environment and the macro-level. Both approaches have been exhaustively studied and documented during the last decades.

The internal approach focuses at some degree on the grouping of variables that belong to the individual traits, internal elements that could affect the degree on which persons are more or less entrepreneurial - in other words, the entrepreneurial orientation. In the sixties, McGregor developed a contemporary approach towards behaviour and motivation (Patterson, 2005), named theory X and theory Y, which stated that there were two kinds of persons: the X group represented people who only responded to external influences, such as money, securities, promises and punishments, and also had to be closely controlled and guided. The Y group however was the opposite, since group Y represented persons who were self-controlled, self-motivated, self-directed and creative, in other words persons that acted without any external influence. McGregor argued that type Y persons where better achievers – these could be better entrepreneurs.

One internal trait with stronger evidence of correlation with the entrepreneurial orientation is self-fulfilment (Hughes, 2003; Baughn et al., 2006); it has been found that persons with a high presence of self-fulfilment often show high levels of EO or that persons with low levels of self-fulfilment show lower levels - in other words, a strong positive correlation. Self-fulfilment is a concept developed upon ideas of ancient Greek philosophers; self-fulfilment is the ability to achieve our dreams and desires through our actions (Alan, 2009). Furthermore, it has also been found that countries which promote self-fulfilment and also have high levels of economic development and quality of life present a reduced EO (Uhlaner, Thurik and Hutjes, 2002). This is argued to be this way because individuals seek self-fulfilment through already established organizations instead of engaging in entrepreneurial activities where the cost of opportunity to capture quality of life and self-fulfilment are too high.

Another personal trait that presents evidence to be greatly correlated with entrepreneurship is the locus of control (Chelariu et al, 2008). This trait was developed in 1954 by Julian Botter and is the extent to which individuals believe that they can affect the events of their life. Individuals with a high locus of control believe that their success and failures are direct consequences of their actions, and they tend to over act in comparison with individuals with low locus of control, who believe that the events of their life are rather results of luck and chance. Locus of control has been proved in various studies as being strongly correlated with EO.

The need for autonomy has proven to be highly correlated with EO (Engle et al, 2010; Van den Broeck et al, 2010). The need for autonomy is the wish to be free and not to be bounded to an organization in order to allow individuals to seek their own desires and goals. When the individual possesses a high need for autonomy, he or she presents more tendency to present EO; however other conditions need to be fulfilled, if the organization where the individual belongs presents characteristics such as an authoritarian style, low liberty, no support and low risk and innovation orientation then the individual will leave the organization and create his own; otherwise the individual will remain in the organization and pursue his/her goals and desires there.

Other studies have focused on the abilities of entrepreneurs to take calculated risks (Ibrahim and Ellis, 1993) and finally overcome ambiguity. Despite the fact that this approach has provided conflicting results, it has been established that the ability to manage ambiguity eases an EO behaviour among individuals. Another internal element of the individual that has gained more and

more importance during the last decade was the presence of a creativity tendency (Athayde, 2009; Cromie, 2000), since there is evidence that the level of EO and success of it relies on creative thinking and non-conventional thinking to overcome obstacles and exploit better new opportunities.

Need for achievement, simply defined as the need to achieve results, whether the motive is or not known exactly, (McClelland, 1961) leads those individuals to try harder to achieve results in comparison with other persons. Thus, a high need for achievement in individuals is another internal treat that has power to explain at some degree the high or low levels of EO within a person.

Beyond the internal traits, there is another element that belongs to the internal perspective of entrepreneurship - behaviour. EO relies on the propensity or conduct to take action (Shapero and Sokol, 1982), meaning that without action there is no entrepreneurial activity. Additional studies have also found that this propensity to take action depends on the perceived desirability and feasibility of the behaviours that the individual could potentially incur, meaning that if the behaviours needed by the individual to achieve a desired state or benefit are perceived as feasible, then the individual would take action on them. The feasibility (Boissin and Emin, 2006) is understood as the individual's beliefs and perceptions, such as feasibility of the opportunity and one´s strengths and weaknesses between others. Additional literature on action can be found in the situational and contingency theory from Hersey and Blachard (Patterson, 2005). The result from their studies suggests that persons either act or react. However, it was found that the ability of a person to react differs from one person to another, and only those who reacted in a more fast and efficient manner where the ones that had stronger action oriented skills. Furthermore, when reacting or acting, one should take actions that are context driven, meaning that the ability to understand the situational factors and the ability to read the environment create more appropriate and effective solutions. (Obgonna, 2000). This means that not only the internal ability to take actions but as well the ability to take proper actions is important in order to increase the level of IEO, but as well the level of success of those actions.

Gender was also a studied influence factor, in terms of how entrepreneurship changes. These studies have found no evidence that supports the idea that one gender has a higher desire to engage in entrepreneurial activities than the other (Verheul et al, 2006; Langowitz and Minniti, 2007). However, due to socio-cultural, normative and contextual factors, women usually face a lower degree of opportunities and support to engage in entrepreneurial activities. For that reason data shows that notwithstanding the rhythm at which women are establishing new organizations has increased significantly, the proportion is still much lower than for men.

The role of the family (Chrisman et al, 2002) has proved to show consistent data that explains the impact of family on entrepreneurship. The more supportive and the more present the family is with the new venture or idea, the bigger it will be from the beginning and the bigger chances to succeed will have. However the degree on which the support of the family influences the desire to incur into entrepreneurial activities is limited; most of the studies have only focused on western countries, thus no evidence or data from other cultural settings, where the role of the family is different, being available.

Economic and political institutions also play an important role in the EO of the individuals of different societies (Reynolds et al, 1999), at the point where roles, behaviours and role models are shaped (Shane, 2003). Moreover, these institutions also outline the amount of: 1. Information individuals can access, reliability of which depends on how transparent the institutions are. 2. Access to tacit knowledge and 3. Access to tangible resources such as financial support. The bigger the offer for these elements, the richer in "nutrients" a country is, favouring the fostering of entrepreneurial activities, (Shapero, 1985). As an example, societies in which the information is at the hand, the access to capital is flexible and entrepreneurs are seen as "heroes" will attract more

entrepreneurial activity, opposite to societies where information is not transparent and is unreliable, access to capital and other resources such as equipment is highly restricted and tacit knowledge is not available to the public - which will scare entrepreneurial activity. Additional studies also suggest that developed countries which promote quality of life, often present less entrepreneurial propensity, this phenomenon being explained by self-employment (Baughn et al, 2006). Developed countries often offer more work opportunities to individuals than in developing countries. Normally this self-employment would happen through a new venture. This could explain at some degree why in the Global Entrepreneurship Monitor (2012), countries like Germany, France and Italy present a percentage lower than 5% in the entrepreneurial activities, whereas countries like Angola, Ghana and Nigeria present percentages above 30%. As well, when individuals due to their communicational barriers and the discrimination on their gender lack the same opportunities in the labour market, they choose to engage in self-employment.

With regard to culture, in many studies it was found as a factor that influences entrepreneurship (Shane, 1992, 1993; Shane et al, 1995). There is, nevertheless, conflicting evidence regarding the importance or level of influence of culture over entrepreneurship. Some authors attribute culture great importance, while others are more moderated. As well, the methodology and perspective on how culture has been evaluated and perceived is not the same in all the studies, which could explain why the results do not coincide. What has been argued is not whether culture has a role in EO, but how significant it is.

One of the most celebrated and cited investigator is Hofstede - in the past years his studies and researches have contributed enormously to this field of expertise. His studies have focused in different types of cultures, the national and the organizational cultures being the most important ones. In this approach, organizational culture is the manner in which the associates of a given group or organization relate and differentiate from other organizations. National culture reflects the set of shared values in any given nation. Hofstede argues that there are four levels that identify any individual's culture, where the first three levels belong to the organizational culture and the last belongs to the national culture: 1. Symbols, 2. Heroes, 3. Rituals and 4. Values. In regards with organizational culture, Hofstede proposes six dimensions that facilitate its understanding: 1. Means-oriented or goal-oriented, 2. internally driven or externally driven, 3. local or professional, 4. open system or closed system, 5. employee-oriented or work-oriented and 6. Low discipline or strict discipline. (Hofstede, 2001). Means-oriented cultures focus often on the way things are done, rely on a generous set of rules and standardized procedures, while goal oriented cultures focus on the goal, rules and processes are not important, and risks and new approaches are constantly undertaken. This culture often portrays hard working and self-oriented behavioural traits. In the second dimension, internally driven cultures maintain the notion that internal knowledge and internal beliefs matter the most, and for that reason ethics and honesty are highly respected. External driven cultures are entirely driven by the needs of the customers and the opportunities of the market, importance of which primes over ethical or internal beliefs. For that reason external driven cultures are pragmatic and more effective than its counterpart. In the third dimension, local cultures tend to have the need to be socially accepted and liked; additionally the persons with this type of culture have a strong need to identify themselves with the organization and their leaders. Furthermore, the notion of time is short term oriented and there are no strong plans or vision in the long term. Opposite to that, individuals with a professional culture identify themselves with their profession and the hierarchical position they have in the organization they belong to. In the fourth dimension, closed systems refer to organizations that do not accept so easily new members and do not support new members in the adaptation process. Open systems however, welcome new members, support the adaptation process and are more open towards new ideas and changes. The fifth dimension stresses the orientation between members and work. In an employee-oriented culture the well-being of members primes. In a work-oriented culture the goals and work are more important. In the last dimension, low discipline cultures are represented by a low amount of rules,

discipline and control, where spontaneous actions reign. Opposite to this, strict cultures emphasize more in serious, punctual and cost-conscious members. In regards with the national culture, Hofstede proposes 6 dimensions (Hofstede, 2002): 1. Individualistic or collectivistic, 2. Masculine or feminine, 3. Uncertainty avoidance, 4. Power distance, 5. Time perspective and 6. Indulgence vs Restraint (added in 2012). The first dimension evaluates how the needs and desires of an organization are prioritized. In a strong collectivistic group the overall well-being of the society will prime over the individual, whereas in a strong individualistic culture the individual will always come first. In the second dimension, masculine cultures have pre-determined roles for both women and men and additionally strength, power and money are desired traits, in feminine cultures support, caring and relations are wanted traits and there are less pre-fixed roles for women and men. In the third dimension, the tolerance towards risk and adopting new approaches is measured. Countries with low uncertainty avoidance often resist change and often present high levels of bureaucracy and rules. The fourth dimension assesses the perception of power in a culture; in high power distance societies there is an acceptance towards inequality and distribution of power. The fifth dimension refers to the perception of time, which can be set in the short-term, as well the perception of time can be reflected in the long-term, for which ability to plan and persevere are developed. The last dimension separates societies into gratification and life enjoying societies and restraint societies. Restraint societies have strong social norms that regulate and suppress in many occasions the ability of the individuals to achieve self-gratification whereas the other type of society has fewer rules and norms in order to facilitate the indulgence in a social setting.

Another well-known researcher in the field of cross-cultural differecnes is Fons Trompenars. He further developed Hofstede's work by suggesting a new set of dimensions (Trompenars et al, 1997). These seven dimensions of culture were additionally co-created with Hamden Turner, and they describe the orientations that individuals select when they act in a work environment: 1. Universalism vs. particularism, 2. Individualism vs. collectivism, 3. Neutral vs. emotional, 4. Specific vs. diffuse, 5. Achievement vs. Ascription, 6. Sequential vs synchronic and 7. Inner directed vs. outer directed. The first dimension focuses on the role of laws and rules, in a universal culture the society prioritizes law and rules over individuals and personal relations; the second dimension dictates weather a culture should prioritize either the wellbeing of the individual or that of the society; the third dimension stresses affectivity or neutrality in an organization or society; the fourth dimension emphases how the individuals of a society or group perceive the elements around them; the fifth dimension, achievement or ascription discusses how individuals gain status within an organization or society – based on results and achievement or on age, gender and family name; the sixth dimension is tightly related with Hofstede's time-perception dimension. In this dimension individuals can either complete tasks in a sequential order, or they can rather choose to take a synchronic approach; last but not least, the seventh dimension displays how organizations and societies see the external environment. In an external directed culture, individuals believe that they should co-exist and not try to take control of the external environment, since they see it as uncertain, risky and very complex. In an inner directed culture, individuals believe that although the external environment is really powerful, they can undertake control and modify it.

Hall strongly believed that cultures share a relationship when they communicate; he argued that culture's communication, among other things, was heavily affected by the context within that society or cultural group (Hall, 1995). Additionally he argued that the context could be high or low, in regards of how the information and the communication are done. (Wurtz, 2005). In a low context culture the communication is often transmitted in a direct manner either orally or written, and additionally the communication is rich in content, since the objective is to be as explicit as possible to not leave room for misunderstandings. This happens because this type of cultures present low context information which makes it hard for the receptor of the information to understand the message. (Wurtz, 2005) A high context culture is the opposite, since the rich context already implies certain information without the need of words. Silence, body language or encoded information and behaviour between others provide a rich source of information, for which only

phew amount of words are needed. (Wurtz, 2005). With the context dimension, Hall found different cultural orientations as a result of assessing different cultural factors and how low or high context cultures reacted. These factors are: 1. Overtness of messages, 2. Locus of control and attribution to failure, 3. Use of non-verbal communication, 4. Expression of reaction, 5. Cohesion and separation of groups, 6. People bonds, 7. Level of commitment to relationships and 8. Flexibility of time. A good example of different orientations could be seen in the locus of control and failure factor, Hall found that in a high context cultures failure was accepted and the locus of control was internal whereas in a low context culture individuals blamed others in case of a failure and the locus of control was externally.

We shortly reviewed these theories because they served as a basis for the instrument through which one of our constructs – COF – was developed. The Cultural Orientation Framework (COF), developed by professor Rosinski (Rosinski, 2003) is a tool that measures culture and which serves very well the purpose of this study. What adds great value is the fact that the COF measures both the internal and the external perspective, meaning that the answers of the participants when they use the COF tool describe how they feel and think and not how they believe or how they perceive the culture of the cultural group they belong to and that surrounds them. The COF was developed based on the results obtained by key authors in their efforts of assessing culture, among them being G, Hofstede, E, Hall, F, Trompenaars, F, Kuchhohn, F, Strodtbeck and others. This upholds the legitimacy and reliability of the theoretical framework upon which the COF was developed. From the mentioned authors, Kuchhohn and Strodtbeck were the ones who originally introduced the ideas and concepts surrounding the cultural orientation frameworks for the first time (Kluchhohn et al, 1961). Both authors spent 10 years working upon findings and theories developed by Pasons and Shils (Pasons et al, 1951) for which they had to travel around the world moving from one field of studies to the other one.

3. Methodology: variables' operationalization, method and instruments, sample

3.1.Variables's operationalization

In order to investigate the relationship between individual entrepreneurial orientation (IEO) and cultural profile (COF) we needed to operationalize the two constructs – we needed appropriate measures. The COF of Rosinski (Rosinski, 2003) was designed to analyze culture from two perspectives, the first one measuring the orientation of the participant and the second one the abilities to engage in different cultural styles despite the participant's personal orientation. This means that a person who prefers to engage in direct communication with other people could have the ability to engage as well in indirect communication, despite the fact that it is not this person's personal orientation or preference. The COF has a total of seventeen different cultural orientations, grouped in seven categories. Each of the seventeen elements is analyzed individually from the personal orientation and the abilities perspective, for a total of thirty-four questions. The test can additionally be taken from the Rosinski & Company website: www.cofassesment.com. The seven categories and the seventeen orientations from Rosinski's COF are (Rosinski, 2003):

1. Sense of Power and Responsibility
    a. Control, Humility or Harmony
2. Time Management Approaches
    a. Scarce or Plentiful
    b. Monochronic and Polychromic
    c. Past, Future or Present
3. Definitions of Identity and Purpose
    a. Being or Doing
    b. Individualistic or Collectivistic
4. Organizational Arrangements

   a. Hierarchy or Equality
   b. Universalist or Particularist
   c. Stability or Change
   d. Competitive or Collaborative
5. Notions of Territory and Boundaries
   a. Protective or Sharing
6. Communication Patterns
   a. High Context or Low Context
   b. Direct or Indirect
   c. Affective or Neutral
   d. Formal or Informal
7. Modes of Thinking
   a. Deductive or Inductive
   b. Analytical or Systemic

This construct has been validated (Rojon, 2010) through previous studies which found internal consistency at some extent (although more studies assessing COF would be needed for a psychometric validation). Since the objective of this research is to measure if and how culture influences entrepreneurship from the internal dimension, for the purposes of this study the first seventeen questions assessing the cultural orientations and not the cultural abilities were taken.

With regard to IEO, there have been numerous attempts to build a construct that predicts entrepreneurship. Traditionally, this attempt has focused on assessing the level of entrepreneurship of organizations or group of individuals; however in the recent years attempts to build a construct to measure entrepreneurship from the internal perspective have increased. The original EO construct contained five different behaviours developed by Lumpkin and Dess (Lumpkin, 1996): 1. Innovativeness, 2. Willingness to take Risks, 3. Proactiveness, 4. Competitiveness and 5. Autonomy. Both authors developed this construct upon findings of Miller (1983) and Covin and Slevin (1989) who created the basis for the EO (Bolton et al, 2012).

After numerous studies testing Dess and Lumpkin's construct, it has been found that autonomy and competitiveness were strongly correlated with the overall variance of the other three behaviours and additionally had low Cronbach alpha score, reason for which they were removed from the EO construct. The remaining three behaviours are defined as follows (Rauch et al, 2009):

1. Innovativeness: Disposition to introduce new ideas throughout experimentation and making use of the creativity.
2. Risk-Taking: Taking bold actions as a result of committing resources with uncertainty of the results.
3. Proactivity: Acting in anticipation of an opportunity.

Bolton and Lane (Bolton et al, 2012) found, when assessing the three elements in individuals, that those three elements accounted for the 60% of the variance in entrepreneurship orientation. Additionally, through an item reduction process, they were able to identify ten elements or questions in order to measure innovativeness, proactiveness and risk-taking. These elements proved to be content valid and. From the ten questions, three belonged to risk-taking, four to innovativeness and three for proactiveness:

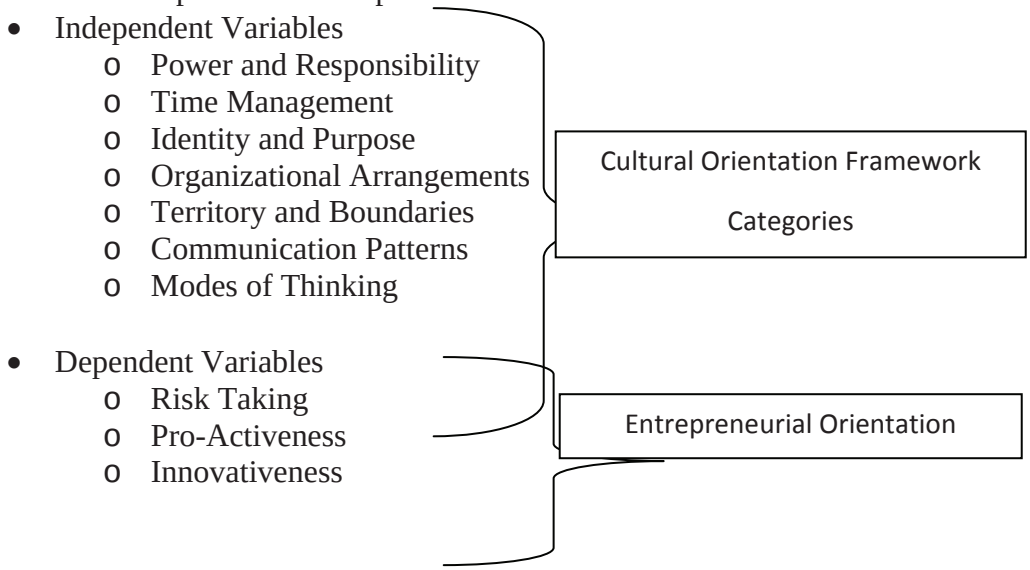
1. Risk Taking
   a. I like to take bold action by venturing into the unknown
   b. I am willing to invest a lot of time and/or money on something that might yield a high return
   c. I tend to act "boldly" in situations where risk is involved
2. Innovativeness

a. I often like to try new and unusual activities that are not typical but not necessarily risky
b. In general, I prefer a strong emphasis in projects on unique, one-of-a-kind approaches rather than revisiting tried and true approaches used before
c. I prefer to try my own unique way when learning new things rather than doing it like everyone else does
d. I favour experimentation and original approaches to problem solving rather than using methods others generally use for solving their problems

3. Proactiveness
   a. I usually act in anticipation of future problems, needs or changes
   b. I tend to plan ahead on projects
   c. I prefer to "step-up" and get things going on projects rather than sit and wait for someone else to do it.

Additionally, the three elements are internal dimensions, going in line with the cultural orientations from the COF, which, as mentioned in many occasions facilitates the evaluation of the results of the empirical study.

Since the objective is to know if culture influences entrepreneurship, the following variables will be classified as a dependent or independent:



With both the dependent variables and the independent variables, this study aims to understand how the COF could affect the IEO from the internal dimension in terms of correlation from all the elements composing the COF and as well from COF as a whole. For that reason the main hypothesis that will drive this research is:

H1.All the categories that compose the COF have a correlation (either negatively or positively) with the IEO

3.2. Methods, instruments and sample

Both EO and COF were measured via a structured questionnaire in the same session (one shot). The survey was done through an online questionnaire, for several reasons. First of all because of its practicality, since the questionnaire was intended to be shared through many universities in different countries. Second, the questionnaire allows collecting a large amount of data in a cost and timing effective way. Third, the quantification and later analysis of the data is more quick and transparent. Forth, a digital questionnaire allows more objectivity in comparison with other methods. The questionnaire was shared with the help of Google docs, due to its simplicity and

reliability when it comes to save data and when it comes to present it to the students. The link with the questionnaire was shared in student groups in Facebook belonging to the following universities in Vienna: the University of Vienna, Wirschaftsuniversität Wien, Universität für Bodenkultur Wien and the Technische Universität Wien. Additionally the links where shared internally in the Lauder Business School in Vienna and in other universities: Universitatea de Vest Timisoara (Romania), University Matej Bel (Slovakia), University of Economics Bratislava (Slovakia), University of Economics Prague (Czech Republic) and University of Economics Katowice (Poland). This process took place from the 19th of January until the 10th of March, when the questionnaire was set off, thus making it not possible for additional participants to respond.

The IEO was measured with the 3 individual dimensions: Risk-taking, Proactiveness and Innovativeness which have already shown reliability and validity in various researches. The EO was measured on a five-point Likert scale with exactly the same 10 questions from Bolton (Bolton, 2012). The COF was calculated from a questionnaire that assesses 7 dimensions on a 5 point axis semantic differential type questions: sense of power and responsibility, time management approaches, definitions of identity and purpose, organizational arrangements, notions of territory and boundaries, communication patterns and modes of thinking. These 7 variables were distributed in 17 questions, the same questions that Rosinski employs to use the COF tool. Additional questions such as the nationality and the mother tongue where asked in order to corroborate the real background of the student, as well the student status and birthdates where asked for further analysis purposes. The questions for both the COF and the IEO were written and presented in English to all the students in order to maintain the same questions from Bolton and Rosinski and don't give room for any misunderstanding that could had happened if the questions were translated. Since this research needs to be done upon a quantitative methodology, SPSS was chosen as the software to analyze the data retrieved from the questionnaires (the 21th version of this software was employed). The online questionnaire was distributed and shared between January 19 and May 10 of 2015. Within the 2 months, 214 questionnaires were filled. From these, 12 were filled by non-students, leaving 202 responses. From those 202 answers, 10 responses were made by students older than 30 years old (were born earlier than the year 1985), leaving a final sample size of 192 filled and valid questionnaires.

4. Main results

From the final sample (see Table 1), respondents from 33 countries were found. Austria, with 77 valid responses, was the biggest group, representing 40% of the total answers, followed by Romania and Slovakia with an 8.3% and an 8.85% subsequently, whereas countries such as Brazil and Taiwan were only represented by 1 student. Since Austria, Romania, Slovakia, Czech Republic and Poland were the countries in which the questionnaire was distributed, it was expected to have the biggest amount of students from this countries. Furthermore, the gender structure was 70% women and 30% man. Regarding the field of studies, there were initially 21 different subjects from different areas (Table 2); in order to generate a more appropriate analysis, the different studies were grouped into 6 different areas of studies: 1. Social Sciences, 2. Business Administration and Economics, 3. Education, 4. Landscape Architecture, 5. Languages and 6. Natural Sciences. Although Business Administration and Economics belongs as well to Social Sciences, due to the big size of the student population involved in related studies (marketing, economics, finance, banking, management and international business) it was left aside as a single group.

Table 1: General overview of the sample

Country	Female	Male	Total
Education	8		8
Austria	7		7
Luxembourg	1		1
Landscape Architecture	8	1	9
Austria	7		7
Bulgaria	1		1
Poland		1	1
Languages	39	7	46
Austria	27	6	33
Bosnia		1	1
Bulgaria	1		1
Croatia	1		1
Germany	2		2
Italy	1		1
Kenya	1		1
Pakistan	1		1
Romania	1		1
Russia	1		1
Serbia	2		2
Slovakia	1		1
Natural Sciences	10	3	13
Austria	5	2	7
Bhutan		1	1
Bosnia	1		1
Hungary	1		1
Italy	1		1
Portugal	1		1
Slovene	1		1
Social Sciences	23	7	30
Albania	1		1
Austria	12	3	15
Bulgaria	1		1
Germany	4	1	5
India	1		1
Italy		1	1
Philippines		1	1
Romania	3	1	4
Slovakia	1		1
Business Administration and Economics	46	40	86
Armenia	1		1
Austria	7	1	8
Brasil		1	1
Bulgaria	1	2	3
Canada		1	1
Czech R	4	3	7
Ecuador		1	1
England	1		1
France	1	1	2
Georgia	2		2
Germany		1	1
Hungary		1	1

India	1		1
Israel	1	4	5
Italy		1	1
Moldova	8		8
Poland	1		1
Romania	3	8	11
Russia	7	3	10
Serbia		2	2
Slovakia	6	9	15
Taiwan	1		1
Ukraine	1	1	2
Total	**134**	**58**	**192**

Source: Self-made table

Table 2: Subjects from sample

SUBJECT	TOTAL	%
Anthropology	3	2%
Banking	14	7%
Business Administration	54	28%
Communication	5	3%
East Asian Studies	1	1%
Economics	13	7%
Education	8	4%
Health	1	1%
International Development	12	6%
Landscape Architecture	9	5%
Languages	38	20%
Law	1	1%
Marketing	5	3%
Mathematics	1	1%
Natural Sciences	12	6%
Politics	1	1%
Psychology	2	1%
Psychology	1	1%
Social Sciences	1	1%
Sociology	2	1%
Translation	8	4%
Total	**192**	**100%**

Source: Self-made table

A factor analysis for COF was the first step, since it was necessary to create variables or factors that described the variance of all the 17 elements from the COF (Table 3). In this analysis, 7 main different factors with eigenvalues greater than 1 were found and for which the cumulative variation of the 58.9% was explained, for which the first 30% belonged to the first 3 factors. This means that those seven factors are a construction upon the 17 COF variables or orientations that represent almost 3/5 of the total variance. Analyzing carefully the factor loading (Table 4) it can be observed that except the third question belonging to the “Time Management Approaches” variable, the other 16 questions are represented with 1 or more of the 7 factors with a variance higher than 0.4 or lower than -0.4, threshold set to identify strong correlations (Shortell, 2001).

Table 3: Factor Analysis COF

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,274	13,379	13,379	2,274	13,379	13,379
2	1,609	9,462	22,841	1,609	9,462	22,841
3	1,422	8,363	31,204	1,422	8,363	31,204
4	1,334	7,846	39,049	1,334	7,846	39,049
5	1,197	7,042	46,092	1,197	7,042	46,092
6	1,139	6,697	52,789	1,139	6,697	52,789
7	1,053	6,191	58,980	1,053	6,191	58,980
8	,922	5,421	64,402			
9	,849	4,995	69,397			
10	,830	4,883	74,280			
11	,799	4,702	78,982			
12	,707	4,157	83,139			
13	,665	3,914	87,052			
14	,650	3,826	90,879			
15	,585	3,439	94,317			
16	,502	2,952	97,269			
17	,464	2,731	100,000			

Extraction Method: Principal Component Analysis.

Source: self-made with help of SPSS

Furthermore, it can be seen that the orientation of the perception of time: abundant non abundant (TMA1) and the innovativeness and non-innovativeness (OA3) orientation are the only variables that load strongly with more than one factor, leaving the other 15 orientations loading just once.

The second stage of the multi-step analysis was to take the 7 factors from the factor analysis and apply a regression analysis, where the dependent variable was EV (final score for IEO) and where the independent variables were the new 7 COF factors. This was done to evaluate if a significant influence on the independent variables over EV existed. Since the linear regression was developed using 7 different elements, the literature strongly advises to analyze the model from a multiple linear regression perspective (Table 5). From that perspective the model summary clearly explains that the 12.1% of the variability in EV scores (adjusted R square) is explained by the 7 factors that represent the 58.9% of the variability of COF values.

Moreover, as the level of significance of this model is observed (Table 6), it is clear that the model has a high level of significance since it is much lower than 0.05, hence it can be concluded that there is strong evidence to reject the null hypothesis: the model has no explanatory power regarding the variance of EV. This strong evidence clearly supports the previous statement, meaning that affirming that the 12.1% of the variance in the final scores for entrepreneurship (EV) is explained by the 7 factors is correct.

Table 4: Component Matrix

ID	17 ICO QUESTIONS	Component						
		1	2	3	4	5	6	7
SPR	We should accept inevitable natural limitations. In my opinion, life is essentially a matter of fate and luck.	-0,119	-0,226	-0,109	-0,247	0,362	0,286	0,611
TMA 1	Time is abundant. I prefer to slow down and take my time	0,419	0,005	-0,447	0,42	-0,022	-0,219	-0,015
TMA 2	I prefer to concentrate simultaneously on multiple tasks and/or people.	0,318	0,387	0,036	-0,052	-0,28	0,307	0,274
TMA 3	I have a bias towards long-term benefits. We should promote a far-reaching vision.	0,219	0,509	-0,231	0,251	-0,113	0,209	0,259
DIP 1	What truly matters to me are concrete accomplishments and visible achievements.	-0,161	0,674	0,238	-0,278	-0,21	-0,068	0,065
DIP 2	I tend to emphasize my affiliation with a group.	0,437	0,384	-0,12	-0,198	0,006	-0,206	-0,372
OA 1	I believe that people are equals who often happen to play different roles. Consensus and empowerment should be favored.	0,315	-0,418	0,273	0,186	-0,36	-0,043	-0,166
OA 2	We should emphasize particular circumstances. We should favor decentralization and tailored solutions.	0,384	-0,128	0,238	0,491	-0,104	0,175	0,238
OA 3	I value a dynamic and flexible environment. We should promote effectiveness through adaptability and innovation. I tend to avoid routine, which I perceive as boring.	0,299	-0,015	0,442	-0,268	0,14	0,53	-0,235
OA 4	I believe success and progress are best promoted through mutual support, sharing of best practices and solidarity.	0,524	-0,265	0,264	-0,029	0,139	-0,152	0,131
NTB	I prefer to build closer relationships by sharing my psychological and physical domains.	0,569	-0,023	-0,141	-0,256	-0,332	-0,186	0,233
CP 1	I tend to rely on explicit communication. I favor clear and detailed instructions.	-0,146	-0,107	0,617	0,027	-0,231	-0,393	0,279
CP 2	In a conflict or with a tough message to deliver, I favor maintaining a cordial relationship at the risk of misunderstanding.	0,359	0,288	0,279	-0,222	0,359	-0,415	0,167
CP 3	I tend to stress conciseness, precision and detachment when communicating.	-0,331	0,323	0,433	0,398	0,081	0,116	-0,168
CP 4	I favor familiarity and spontaneity.	0,558	-0,185	0,005	-0,338	0,029	0,232	-0,22
MD 1	We should start with experiences, concrete situations and cases. Then, using intuition, we can formulate general models and theories.	0,417	0,204	0,142	0,377	0,187	0,168	-0,023
MD 2	I tend to assemble the parts into a cohesive whole. I like to explore connections between elements and focus on the whole system.	0,199	0,104	0,034	0,19	0,645	-0,174	-0,022
	Extraction Method: Principal Component Analysis.							
	a. 7 components extracted.							

Source: self-made with help of SPSS

Table 5: Linear Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,392[a]	,153	,121	4,602

Source: self-made with help of SPSS

Table 6: ANOVA and Significance of the model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	705,656	7	100,808	4,760	,000[b]
	Residual	3896,713	184	21,178		
	Total	4602,370	191			

a. Dependent Variable: EV

Source: self-made with help of SPSS

4.1. Elements of COF influencing EV

After proving that the internal cultural orientation represented by the COF, although at a small degree, influenced the EV scores, a more precise analysis on the factors was needed. For that, an individual correlation from those 7 factors with EV was prepared (Table 7). In terms of significance it was noted that not all the factors where significant, and not all the factors had a correlation with the final EV scores as it was initially thought. Factor 1, 3 and 6 were the only factors which were significant. From those 3, factor 6 had the highest correlation from the three with -0.28, followed by factor 3 with -1.53 and factor 1 with a significant correlation of -0,152. Despite the significance, the correlation is nonetheless weak.

Table 7: Factor Correlation with EV

		EV
EV	Pearson Correlation	1
	Sig. (2-tailed)	
	N	192
Factor 1	Pearson Correlation	-,152*
	Sig. (2-tailed)	,035
	N	192
Factor 2	Pearson Correlation	,111
	Sig. (2-tailed)	,126
	N	192
Factor 3	Pearson Correlation	-,153*
	Sig. (2-tailed)	,034
	N	192
Factor 4	Pearson Correlation	,095
	Sig. (2-tailed)	,192
	N	192
Factor 5	Pearson Correlation	-,047
	Sig. (2-tailed)	,513
	N	192
Factor 6	Pearson Correlation	-,280**
	Sig. (2-tailed)	,000
	N	192
Factor 7	Pearson Correlation	-,070
	Sig. (2-tailed)	,332
	N	192

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Source: self-made with help of SPSS

4.2. IEO as a non uni-dimensional scale

After proving that a correlation between COF and EV existed, we checked a new approach. The EV score was done as the final score for the entrepreneurial orientation, in other words we assumed an uni-dimensional score that represented the IEO of the participants. In order to test more the relationship between culture and entrepreneurship, a new model or approach was undertook. For that instead of testing COF with EV, we did it with the three factors that represent the IEO, separately: 1. Risk-taking. 2. Proactiveness and 3. Innovativeness. Using the same method, the independent scores for the three factors was developed by summing the scores for the three questions belonging to risk, the four for innovativeness and the three for proactiveness. The mean of the risk and proactiveness scores were really close (Table 8).

Table 8: Descriptive Statistics for final scores for Risk, Innovativeness and Proactiveness

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Risk	192	12	3	15	9,67	2,000	4,002
Innov	192	16	4	20	13,66	2,926	8,560
Proact	192	10	5	15	11,39	2,049	4,197
Valid N (listwise)	192						

Source: self-made with help of SPSS

After creating the three new values, the next step was to test them individually with the 7 factors of COF. The correlation analysis was a good start (Table 9). Only factor 1, 2, 3 and 6 had a significant correlation. Additionally, the score innovativeness significantly correlated with 3 factors, risk with 2 and proactiveness only with 1. Furthermore, the strongest correlations were with the factor 6, were a correlation of -3 with innovativeness and -.95 with risk taking was found. When comparing these results with the previous correlation with the EV, we can observe similitude, but by observing the three scores separately we notice stronger relationships and we can identify the source of this strong relationship: risk and innovation are clearly the source for factor 1 and 6, proactiveness for factor 3 and innovation one more time for factor 2, which did not computed previously with the EV score. Factor 1 loads strongly with a perception of abundance of time, a collectivistic approach and familiar approaches and relationships. As noted before, the correlation is negative (although at a lower level) with risk and innovation. On the same side, Innovation loads with Factor 2, which as mentioned before can be seen as the opposite from factor 1, since it describes a more individualistic approach with stronger self-efficient personalities, where objectives and results primes and were the vision is often seen in the long term. Since there is a significant correlation, we can be conclude (although cautiously, at a small degree) that the more present this cultural orientation is, the more innovative the person or individual will be.

Proactiveness influences only one of the factors, although at a small correlation factor 3 had a significant relation. This factor is represented by a cultural orientation of being clear, precise, adaptable and innovative to overcome the feeling of scarcity of time; this means that the more present these orientations are in an individual, the more proactive the individual can be.

Innovativeness and risk taking load as well with factor 6, which is the desire to be innovative and adaptable, for which direct and clear communication is perceived as the best way to communicate. This factor presented the biggest level of influence in regards with risk taking and innovativeness. Furthermore, the way individuals perceive the world in terms of luck/results (factor 7) and having a holistic or individualistic perception (factor 5) is not correlated with risk taking, innovativeness and proactiveness. This suggests that despite their orientation, individuals do not base their internal entrepreneurial orientation on those two variables. Factor 4 did not show as well any significant correlation with any of the three elements.

When applying the regression analyses with the new three scores (table 10), it can be observed that the seven factors of COF were not significant in explaining the variance of the proactiveness element of the IEO, this means that not all the three elements from IEO where significantly correlated with COF. In the other side, COF had a significant correlation with the risk taking and the innovativeness scores, explaining the variance in a 13.8% and 17.8%correspondently (R square). It can be additionally noted that the explanation of the variance in regards with the innovativeness score was higher than with the final EV score which was 12.1% whereas the risk taking score was lower.

Table 10: Regression with the IEO scores

Score	R	R Square	Adjusted R Square	Std. Error of the Estimate	F Change	Sig. F Change
Risk	,372[a]	,138	,105	1,892	4,210	,000
Innovation	,422[a]	,178	,147	2,702	5,698	,000
Proactiveness	,251[a]	,063	,027	2,021	1,767	,096

Source: self-made with help of SPSS

Our hypothesis is just partially confirmed – we identified significant correlations between dimensions of the individual entrepreneurial orientation and factors of the cultural orientation profile of an individual. Not all dimensions are correlated and not all correlations are significant, but the results can serve as a pilot package for further researches. The small sample and especially the small number of respondents from the analyzed countries did not allow us to run separate analyses for every country, as intended.

Table 9: Correlation of the COF factors with the IEO scores

		Risk	Innov	Proact
Factor 1	Pearson Correlation	-,150*	-,164*	,017
	Sig. (2-tailed)	,038	,023	,820
	N	192	192	192
Factor 2	Pearson Correlation	-,100	,176*	,112
	Sig. (2-tailed)	,169	,015	,122
	N	192	192	192
Factor 3	Pearson Correlation	-,040	-,106	-,177*
	Sig. (2-tailed)	,585	,142	,014
	N	192	192	192
Factor 4	Pearson Correlation	,116	,108	-,041
	Sig. (2-tailed)	,109	,135	,572
	N	192	192	192
Factor 5	Pearson Correlation	-,054	-,076	,048
	Sig. (2-tailed)	,459	,293	,511
	N	192	192	192
Factor 6	Pearson Correlation	-,295**	-,302**	,049
	Sig. (2-tailed)	,000	,000	,502
	N	192	192	192
Factor 7	Pearson Correlation	-,028	-,021	-,112
	Sig. (2-tailed)	,703	,774	,123
	N	192	192	192
Risk	Pearson Correlation	1	,379**	,131
	Sig. (2-tailed)		,000	,070
	N	192	192	192
Innov	Pearson Correlation	,379**	1	,152*
	Sig. (2-tailed)	,000		,035
	N	192	192	192
Proact	Pearson Correlation	,131	,152*	1
	Sig. (2-tailed)	,070	,035	
	N	192	192	192

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: self-made with help of SPSS

5. Conclusions

An extensive analysis was necessary in order to evaluate if there was truly a relationship between the cultural orientation framework (COF) from the personal orientation perspective and the internal entrepreneurial orientation (IEO). The 17 items of COF were tested through a correlation matrix and later through a factor analysis. The internal values of COF proved to be highly unrelated, with really low correlation rates, which potentially led to a 7 factors loading above the eigenvalues greater than 1. It was found however that despite the low relationship between the variables of the IEO, the 7 founded factors had a coherent loading with those variables. Factor 1 was found to be represented with the feeling of abundance of time and a familiar and collectivistic approach. Factor 2 stresses self-efficacy and self-driven personalities. Factor 3 represents the feeling of lack of time and the need for more efficient and adaptive approach to things. Factor 4 characterizes the feeling of abundant time and the need to develop tailored solutions and approaches. Factor 5 displays an

internal belief that the world should be seen from a holistic perspective. Factor 6 shows how the desire of wanting more flexible, innovative and efficient approaches leads to the notion that a clear message should be placed above personal relations. Finally factor 7 is the notion that life is a matter of luck.

After analyzing the orientations from the COF that loaded highly with each factor, we determined that the orientations that influenced the most the 7 factors were: 1. Collectivism and intrapersonal relations, 2. Individualism and self-efficacy, 3. Lack of time notion, 4. Notion of abundant time, 5. Holistic Perspective, 6. Efficient, adaptive and innovative approaches and 7. Luck. Analyzing internally COF and IEO, we tested the existence of a relationship. We selected a linear regression, since it could show the level of variance explained by the 7 factors of the COF. A highly significant percentage of 12.1% was found, in other words we found that the 7 factors described 12.1% of the variance of EV. The literature available clearly states that entrepreneurship is highly influenced not only by one factor but by many factors, ranging from both the internal and external dimensions, culture being only a small element that combined with all the other elements influence the entrepreneurial propensity. Thus, having a 12.1% explained variance seems appropriate.

After proving that COF and EV were significantly correlated, the next step was to assess the factors with EV. For that purpose a correlation analysis, between the 7 factors and EV was done. This step proved to be highly informative, since it was possible to analyze all the 7 factors separately and understand which variables were the ones that had the major influence.

Since the data from the COF was obtained from semantic difference questions, data from which was coded from 1 to 5 in SPSS, were 1 represented the statement and 5 represented the opposite from the statement (semantic difference), the negative correlation values in the correlation analysis between COF and EV mean the following:

1. Having un-familiar and non-collectivistic approaches and/or a perception that the time is not abundant explains by a 15.2% the EV variation.
2. Effective and clear communication, adaptability and innovative approaches explain the variation in a 15.3%.
3. The desire of having an efficient, innovative and adaptable environment, for which delivering clear messages is valued at the expense of relations explains a 28% of the variance of EV.

With the help of a correlation analysis with the 7 factors and EV it was possible to establish which internal cultural approaches had a significant correlation with EV. As a note side, it is important to highlight that not all the variables or factors had a significant correlation with EV, meaning that not all the elements from the COF influence IEO.

Our hypothesis was just partially confirmed – we identified significant correlations between dimensions of the individual entrepreneurial orientation and factors of the cultural orientation profile of an individual. Not all dimensions are correlated and not all correlations are significant, but the results can serve as a pilot package for further researches. The small sample and especially the small number of respondents from the analyzed countries did not allow us to run separate analyses for every country, as intended.

Several important limitations exist for our study, the non-probabilistic sample and the reduced dimension of the sample, as a whole and on different analyzed countries being the most important ones.

Culture alone is not enough to understand and explain entrepreneurship, but knowing the cultural profile of an individual might be useful in developing an adapted training in order to increase entrepreneurial orientation. As our pilot study results have shown, private and public organizations, especially educational institutions could use the COF to understand the key cultural orientations that influence entrepreneurship and could rise (although at a small degree) the IEO of

individuals. Proactiveness and risk-taking can be positively influenced by 8 cultural orientations. In table 11 we synthesised the main cultural orientation variables that organizations and academic institutions should foster. Since there are 6 orientations that influence risk-taking and 2 that influence innovativeness and since the COF has a higher correlation with innovativeness than risk-taking, it is more efficient for organizations to focus initially on the innovativeness orientations and continue efforts (if the organization still possesses the resources) with the risk taking orientations.

Table 11: Cultural Orientations that predict IEO

IEO Element	ID	Cultural Orientation	Description
Risk Taking	TMA1	Scarce	I see time as a scarce resource. Time should be managed efficiently because there is much to do and so little time.
	DIP2	Individualistic	I tend to emphasize my individual attributes and projects.
	OA4	Competitive	I believe success and progress are best promoted through competitive stimulation.
	NTB	Protective	I prefer to protect myself by keeping my personal life and feelings private (mental boundaries), and by minimizing intrusions in my physical space (physical boundaries).
	CP4	Formal	I tend to observe strict protocols and rituals.
	MD1	Deductive	We should emphasize concepts, theories and general principles. Then, through logical reasoning, we can derive practical applications and solutions
Innovativeness	OA3	Change	I value a dynamic and flexible environment. We should promote effectiveness through adaptability and innovation. I tend to avoid routine, which I perceive as boring.
	CP2	Direct	In a conflict or with a tough message to deliver, I prefer to get my point across clearly at the risk of offending or hurting the other person.

Source: Self-Made

With this orientations being identified, specialists from human resources or experimented educators can use the COF tool to know how this 8 orientations are present in each individual and if needed, develop programs to improve the orientations that are not aligned with the wanted outcomes – being entrepreneurially oriented, in our case.

References

1. Alan, G. (2009). *Self-Fulfilment*. Princeton University Press. pp. 6–8.

2. Athayde, R. (2009). Measuring Enterprise Potential in Young People. *Entrepreneurship Theory and Practice*, 33(2), 481-500.

3. Ahmed, S.U. (1985), "risk taking propensity, locus of control and entrepreneurship", *Personality and Individual Differences*, Vol. 6 No. 6, pp. 781-2.

4. Arenius, P., and M. Minnitti, 2005, "Perceptual Variables and Nascent Entrepreneurship," *Small Business Economics*, 24, 233-247.

5. Baughn, C., Chua, B.L. and Neupert, K. (2006), "The normative context for women's participation in entrepreneurship: a multi-country study", *Entrepreneurship Theory & Practice*, Vol. 30 No. 5, pp. 687-708

6. Bolton, D., Lane, M. (2012)."Individual entrepreneurial orientation: development of a measurement instrument", *Education + Training*, Vol. 54 Iss 2/3 pp. 219 – 233

7. Brewer, Anthony (1992). *Richard Cantillon: Pioneer of Economic Theory*. Routledge.

8. Busenitz, L. W., & Lau, C. (1996). A Cross-Cultural Cognitive Model of New Venture Creation. *Entrepreneurship: Theory & Practice*, 20(4), 25-39.

9. Chelariu, C., Brashear, T. G., Osmonbekov, T., & Zait, A. (2008). Entrepreneurial propensity in a transition economy: exploring micro-level and meso-level cultural antecedents. *Journal of Business & Industrial Marketing*, 23(6), 405-415.

10. Chrisman, J. J., Chua, J. H., & Steier, L. P. (2002). The Influence of National Culture and Family Involvement on Entrepreneurial Perceptions and Performance at the State Level. *Entrepreneurship: Theory & Practice*, 26(4), 113.

11. Covin, G. and Slevin, D. (1989), "Strategic management of small firms in hostile and benign environments", *Strategic Management Journal*, Vol. 10 No. 1, pp. 75-87.

12. Cromie, S. (2000). Assessing Entrepreneurial Inclinations: Some Approaches and Empirical Evidence. *European Journal of Work and Organizational Psychology*, 9(1), 7-30

13. Demirci, A. (2013). Cross-cultural differences in entrepreneurial tendencies: an exploratory view in Turkey and Canada. *International Journal of Entrepreneurship*, 1721-40.

14. Engle, R.L. et al. (2010). Entrepreneurial Intent: A Twelve-Country Evaluation of Ajzen's Model of Planned Behavior. *International Journal of Entrepreneurial Behaviour & Research*, 16(1), 35-57

15. Gaddam, S. (2008). Identifying the Relationship between Behavioral Motives and Entrepreneurial Intentions: An Empirical Study Based on the Perceptions of Business Management Students. *ICFAI Journal of Management Research*, 7(5), 35-55.

16. Gasse, Y., & Tremblay, M. (2011). Entrepreneurial Beliefs and Intentions: A Cross-Cultural Study of University Students in Seven Countries. *International Journal of Business*, 16(4), 303-314.

17. Global Entrepreneuship Monitor. Total Entreprenurial Activity per Country. Retrieved from http://www.internationalentrepreneurship.com/ , March 2015.

18. Hahn, H. (2008) Time Sense: Polychronicity and Monochronicity. Retrieved from *http://www.harley.com/writing/time-sense.html*., March 2015.

19. Hall, E.T. (1959). *The Silent Language*, New York: Doubleday.

20. Hansen, D., Shrader, R., &Monllor, J. (2011). Defragmenting Definitions of Entrepreneurial Opportunity. *Journal of Small Business Management*, 49 (2), 283-304.

21. Hans-Hermann Höhmann, F. W. (2002). Structure and Evolution of Entrepreneurial Behavioral Patterns in East and West European Environments: Concepts and Considerations. *Forschungsstelle Osteuropa Bremen Arbeitspapiere und Materialien*.

22. Hofstede, G. (1991). *Cultures and organizations*. New York: McGraw-Hill

23. Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*. 2 Edition.

24. Hopp, C., & Stephan, U. (2012). The influence of socio-cultural environments on the performance of nascent entrepreneurs: Community culture, motivation, self-efficacy and start-up success. *Entrepreneurship & Regional Development*, 24(9/10), 917-945.

25. Ibrahim, A. B., & Ellis, W. H. (1993). *Entrepreneurship and Small Business Management: Text, Readings, and Cases* (2nd ed.). Dubuque, IA: Kendall/Hunt

26. Jain, R., & Ali, S. (2013). A Review of Facilitators, Barriers and Gateways to Entrepreneurship: Directions for Future Research. *South Asian Journal of Management*, 20(3), 122-163.

27. Jamali, D. (2009). "Constraints and opportunities facing women entrepreneurs in developing countries: a relational perspective". *Emerald Insight*, 233-251.

28. Johnson, D., Craig, J.B.L. & Hildebrand, R. (2006). Entrepreneurship Education: Towards A Discipline-Based Framework. *The Journal of Management Development*, 25(1), 40-54

29. Knight, Frank Hyneman (2005). *Risk, Uncertainty and Profit*. Cosimo, Inc.

30. Kobia, M., &Sikalieh, D. (2010). Towards a search for the meaning of entrepreneurship. *Journal of European Industrial Training*, 34(2), 110-127.

31. Krueger, N., Reilly, M., & Carsrud, A. (2000), Competing models of entrepreneurial Intentions. *Journal of Business Venturing*, Vol. 15 Nos 5,6, pp. 411-32.

32. Langowitz, N. and Minniti, M. (2007), "The entrepreneurial propensity of women", *Entrepreneurship Theory & Practice*, Vol. 31 No. 3, pp. 341-64.

33. Lee-Ross, D., & Mitchell, B. (2007). Doing business in the Torres straits: a study of the relationship between culture and the nature of indigenous entrepreneurs. *Journal of Developmental Entrepreneurship*, 12(2), 199-216.

34. Lumpkin, G.T. and Dess, G.G. (1996), "Clarifying the entrepreneurial orientation construct and linking it to performance", The *Academy of Management Review*, Vol. 21 No. 1, pp. 135-72.

35. MacIver, R., Saville, P., Kurz, R., Anderson, N. & Evers, A. (2008). New Aspects of Validity: User Available and User Received Validity. Paper presented at the *6th Conference of the International Test Committee*, Liverpool

36. Maznevski, M., DiStefano, J., Gomez, C., Noorderhaven, N. & Wu, P. (2002). Cultural dimensions at the individual level of analysis: the cultural orientations framework. *International Journal of Cross Cultural Management.* Vol 2(3): 275-295

37. McClelland, D.C. (1961). The Achieving Society. Van Nostrand, Princeton, NJ Langowitz, N. and Minniti, M. (2007), "The entrepreneurial propensity of women", *Entrepreneurship Theory & Practice*, Vol. 31 No. 3, pp. 341-64.

38. Miller, D. (1983), "The correlates of entrepreneurship in three types of firms", *Management Science*, Vol. 29 No. 7, pp. 770-91.

39. Mitchell, R. K., Smith, J., Morse, E. A., Seawright, K. W., Peredo, A., &Mckenzie, B. (2002). Are Entrepreneurial Cognitions Universal? Assessing Entrepreneurial Cognitions Across Cultures. *Entrepreneurship: Theory & Practice*, 26(4), 9.

40. Muljadi, P. (2011), *Entrepreneurship: A group of ideas around entrepreneurship*.

41. Obgonna, H. (2000). Leadership Styles, Organisational Culture and Performance: Empirical Evidence from UK Companies. *Int. J. of Human Resource Management*, 04, p. 23.
42. Patterson, S., 2005. *The History of Leadership Focus*

43. Peiris, I., Akoorie, M., & Sinha, P. (2013). Conceptualizing the Process of Opportunity Identification in International Entrepreneurship Research. *South Asian Journal of Management*, 20(3), 7-38.

44. Peters, M., Frehse, J., & Buhalis, D. The Importance of Lifestyle Entrepreneurship: A Conceptual Study of the Tourism Industry. *PASOS* Vol. 7. 393-405.

45. Rauch, A., Wiklund, J., Lumpkin, G.T. and Frese, M. (2009), "Entrepreneurial orientation and business performance: an assessment of past research and suggestions for the future", *Entrepreneurship Theory and P*ractice, Vol. 33 No. 3, pp. 761-87.

46. Reynolds, P.D., Hay, M. and Camp, S.M. (1999). *Global Entrepreneurship Monitor: 1999. Executive Report*, Kansas City: Kauffman Center.

47. Rosinski, P. (2003). *Global Coaching*. 121-147.

48. Schein, E. H. (2004). *Organisational Culture and Leadership*. 3 ed.

49. Schumpeter, J. (1976). *Capitalism, Socialism and Democracy*. Routledge.

50. Schumpeter, J. (1934). *The Theory of Economic Development: An Inquiry Into Profits, Capital, Credit, Interest, and the Business Cycle*. Transaction Publishers.

51. Shane, S. A. (1992). Why do some societies invent more than others? *Journal of Business Venturing*, 7, 29-46.

52. Shane, S. A. (1993). Cultural influences on national rates of innovation. *Journal of Business Venturing*, 8, 59-73.

53. Shane, S. A., Venkataraman, S., & MacMillan, I. (1995). Cultural differences in innovation championing strategies. *Journal of Management*, 27(5), 931-952.

54. Shane, S. (2003). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Aldershot, UK: Edward Elgar.

55. Shapero, A., and L. Sokol, 1982, "The Social Dimensions of Entrepreneurship," In Kent, C., Sexton, D., and K. Vesper (Éd.), *The Encyclopedia of Entrepreneurship*. Englewood Cliffs: Prentice Hall, 72-90.

56. Shapero, A. (1985), "Why entrepreneurship? A worldwide perspective", *Journal of Small Business Management*, Vol. 23 No. 4, pp. 1-5.

57. Tan, J. (2002). Culture, Nation, and Entrepreneurial Strategic Orientations: Implications for an Emerging Economy. *Entrepreneurship: Theory & Practice*, 26(4), 95.

58. Trompenaars, F., Hampden-Turner, C. (1997) *Riding the Waves of Culture*.

59. Ulhaner, L., R. Thurik, and J. Hutjes, 2002, "Post-materialism: A Cultural Factor Influencing Self-employment across Nations," *Frontiers of Entrepreneurship Research*, Babson College: Wellesley, Mass.

60. Van den Broeck, A. et al. (2010). Capturing Autonomy, Competence and Relatedness At Work: Construction and Initial Validation of the Work-related Basic Need Satisfaction Scale. *Journal of Occupational and Organizational Psychology*, 83(4), 981-1002

61. Verheul, I., Van Stel, A. and Thurik, R. (2006), "Explaining female and male entrepreneurship at the country level", *Entrepreneurship & Regional Development*, Vol. 18, pp. 151-83.

62. Welter, F. (2005), Entrepreneurial Behavior in Differing Environments. In D. B. Audretsch, H. Grimm & C. W. Wessner (eds), Local Heroes in the Global Village. *International Studies in Entrepreneurship*, 93-112.

63. Welter, F., Kauonen, T., Chepurenko, A., Malieva, E. and Venesaar, U. (2004). Trust environments and entrepreneurial behavior: exploratory evidence from Estonia, Germany, and Russia. *Journal of Enterprising Culture*, 12(4), 327–49.

64. Williams, D. W. (1996). *Changing Culture: New Organisational Approaches*. 2 ed. Chartered Institute of Personnel & Development.

65. Xavier, S. R., Ismail, A. Z., & Ahmad, S. Z. (2010). Cultural and Economic Determinants of Entrepreneurial Propensity: A Study of Multi-Ethnic Society in Malaysia. *Journal of Asia Entrepreneurship and Sustainability*, 67-83.

66. Wurtz, E. (2005). A Cross-Cultural Analysis of Websites from High-Context Cultures and Low-Context Cultures. *Journal of Computer-Dedicated Communication*. Vol. 11, No. 1, Article 13.

PART FIVE:

BUSINESS AND HIGHER EDUCATION, HRM in SME's, PUBLIC SECTOR ENTREPRENEURSHIP, BUSINESS PERFORMANCES

APPLICATION OF BUSINESS PROCESS MANAGEMENT IN HIGHER EDUCATION: IN SEARCH OF STRATEGIC PERFORMANCE

Nikša Alfirević, PhD[179],

Maja Ćukušić, PhD[180],

Dubravko Skender, MSc[181]

Abstract

In this paper, the authors describe the conceptual and methodological determinants of the Business Process Management (BPM) application in institutions of Higher Education (HE). It is argued that the BPM approach enables the institutions of HE to achieve a higher level of performance, conceptualized in terms of stakeholders' and social interpretations (comparable to the established standards of performance in non-profit and public sectors). In addition, a separate analysis of the opportunities for integration of BPM into the strategic management systems in HE is conducted, with the emphasis on the Balanced Scorecard (BSC) performance management system. The conceptual part of the paper is illustrated by an example of best practice, related to the BPM implementation at the Faculty of Economics Split, Croatia, including its linkages to the strategic performance management of the institution.

Keywords: *higher education, performance management, business process management*

[179] Faculty of Economics Split, Cvite Fiskovića 5, 21000 Split, E-mail: nalf@efst.hr
[180] Faculty of Economics Split, Cvite Fiskovića 5, 21000 Split, E-mail: maja.cukusic@efst.hr
[181] Auto Zubak plc, Ljudevita Posavskog 7a, 10360 Sesvete, E-mail: dubravko.skender@autozubak.hr

1. Process-oriented models of organisation and efficancy in higher education

Previous research shows a growing interest for the performance of higher education institutions (HEIs), mostly within the framework of quality management. The mechanisms, i.e. systems used for monitoring the institutions' performance can help colleges and universities in offering better educational and research processes. Barnabe and Riccaboni (2007) state that the reform processes in higher education led to the development of numerous quality evaluation/certification programs, growth of the quality assurance agencies and the development of various standards and guidelines for external and internal evaluation of institutions. It is still clear that there are some widely used criteria and schemes for external and internal quality assessment. Some of those are widely accepted, which provides a valid basis for organizational and national modifications and development of customized assessment mechanisms.

Transparency, responsibility, legitimacy and comparability between various European qualifications are only some of the outcomes in quality assurance process (Orsingher, 2006; Al-Hawaj, Elali and Twizell, 2008; Kunst and Hanft, 2009). In some countries, quality assurance is an internal responsibility of each higher education institution and it is based on the internal evaluation of its programme, but it can also imply external evaluation and accreditation (Deem, Hillyard and Reed, 2007). In the first case, external peers evaluate programmes and institutions, while, in the second case, an external independent agency grants a specific quality evaluation, i.e. 'quality label' to programmes and institution, which have met a set of pre-defined requirements.

This paper is based on the models of process-oriented organization and evaluation and international certification – EQUIS and AACSB, which are the basis of efficiency evaluation in HEIs from business area, as well as a more general process model of business excellence, which has been created by the EFQM.

1.1. European Foundation for Quality Management (EFQM) Excellence Model

The European Foundation for Quality Management (EFQM) was formed in 1988, by fourteen leading European business leaders, whose goal was to increase the competitiveness of the European businesses on the world market (Porter and Tanner, 2004). As a result, the EFQM Excellence Model was created. Since 1992, it has undergone some major revisions (1995, 1999, 2003, 2010), and there will probably be more, since its development team constantly works on its improvement. The model is used by over 30.000 organizations (EFQM, 2015).

The primary purpose of EFQM Excellence Model is to provide a solid framework for diagnosis and evaluation of the achieved level of excellence, as the organization, applying the model, seeks constant improvement. The model is based on eight key points – the foundations, on which the organisational excellence is based (Johnstone, Wild and Steed, 2003): customer focus, results orientation, leadership and constancy of purpose, management by processes and facts, people development and involvement, continuous learning, innovation and improvement, partnership development, and corporate social responsibility.

For a successful implementation of EFQM Model those basic concepts are operationalized by using nine criteria (divided into 32 sub-criteria) belonging to one of the two possible categories: Enablers and Results (see Figure 1). Enablers are directly related to what is done and the way it is done, while the results are what an organisation gets, or 'derives' from managing the implementation factors and the level of their achievement (performance) (Saraiva, Rosa and Orey, 2003). Learning, innovation and creativity are also implemented into the model, as they represent factors, incorporated into the each element of the model. They reflect the need to continuously revise the way in which the model is applied and managed, using the learning process for

innovation and aiming at improving the organisation's quality. The arrows in Figure 1 emphasize the dynamic nature of the model, which is based on the premise that: excellent results, with respect to key results, employers, customers and society are achieved through leadership which creates politics and strategies that are delivered with the help of the human resources, partnership and other resources and processes (EFQM, 2003).

The organisation's progress towards excellence is assessed around these building blocks. For each criterion, during the assessment, the evaluator(s) identify the organisation's strong points and areas for improvements, giving numerical scores to the results. From these partial scores, the overall aggregate excellence level of the organisation (ranging from zero to a theoretical maximum of 1000 points) can be quantified. Therefore, EFQM Excellence Model is a practical tool, which can be used in several different ways – as a self-assessment tool, for benchmarking with other organisations, or as a guide for identification of the areas, which need improvement. This is not a normative frame, but, rather, a tool which acknowledges that there are different ways for accomplishing organisational excellence in profit or non-profit organisations (Saraiva, Rosa and Orey 2003). There is a significant potential for implementing the EFQM model in the higher education institutions, and the experiences of Self-Assessment show that the institutions realize the importance of process thinking (Lamotte and Carter, 1999).

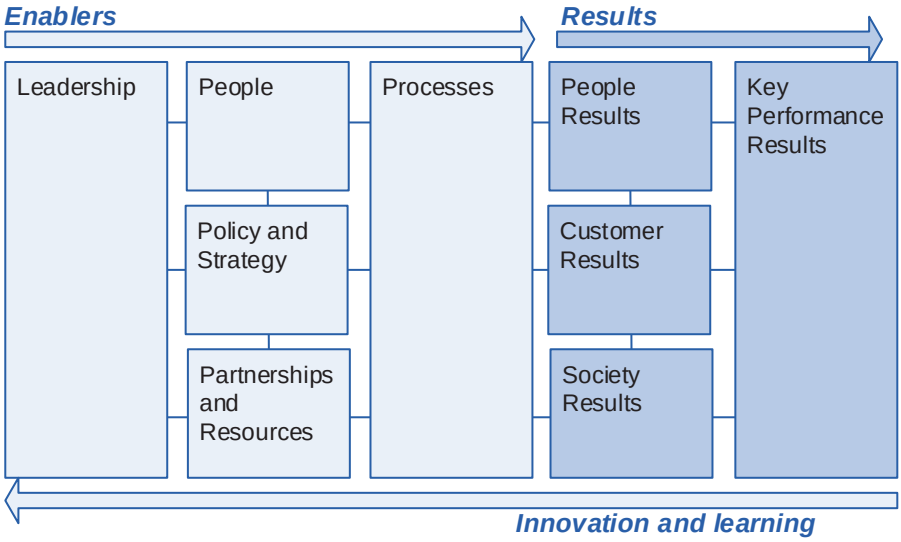


Figure 1. EFQM Excellence Model® (source: EFQM, 2015)

1.2. European Quality Improvement System (EQIUS) Standard

European Quality Improvement System (EQUIS) is an international system of strategic audit, quality improvement and accreditation for higher education institution in different national context (EFMD, 2009a). Although it was initially designed for European schools of management, nowadays EQUIS standards are applied internationally. EQUIS was launched in 1997 by the European Foundation for Management Development (EFMD). EQUIS framework for evaluating a higher education institution is organised into ten related key areas, as demonstrated by Figure 2.

The detailed description of EQUIS standards is available in an EFMD publication (2009b). Each chapter begins with the EQUIS standard for a certain area, followed by the philosophy of EQUIS approach and it ends with evaluation criteria, which are grouped according to key areas. Within every key area, the institution should describe, explain, summarize, analyze and assess the fulfilment of the criteria. The list of questions is also included, along with the list of materials, which need to be either attached to the self-evaluation report or prepared for the assessment team at the first accreditation or reaccreditation of the institution. The assessment areas and criteria

according to EQUIS documentation (EFMD, 2009b) are: context, governance and strategy, programmes, students, faculty, research and development, executive education, contribution to community, resources and administration, internationalisation, and corporate connections.

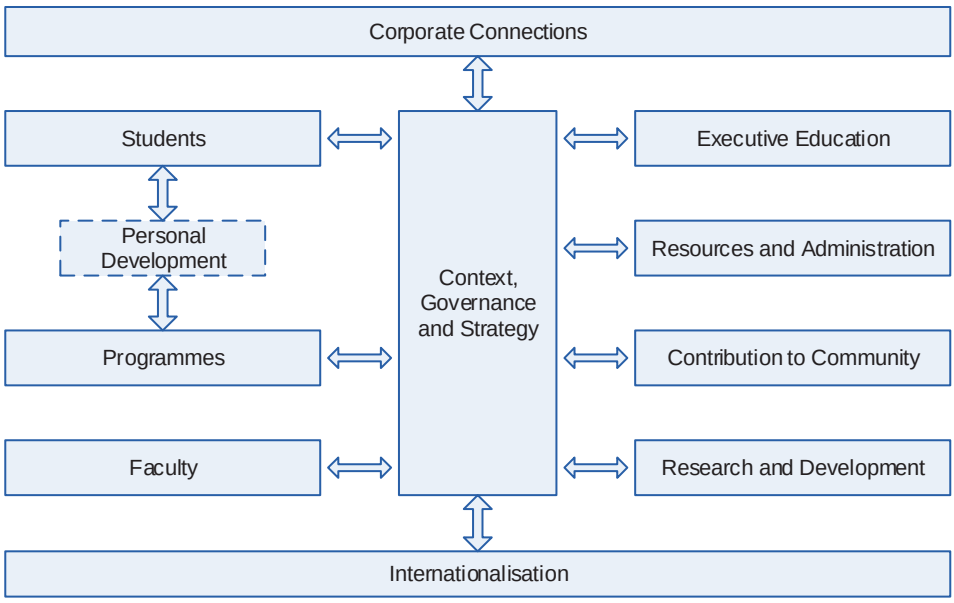


Figure 2. EQUIS criteria (source: EFMD, 2009a)

1.2. Association to Advance Collegiate Schools of Business (AACSB) Accreditation

Association to Advance Collegiate Schools of Business (AACSB) is the organization of educational institutions, businesses and other organisations devoted to the advancement of the management education (AACSB, 2015). At the same time, AACSB is an agency, which provides accreditation for business schools and accounting programmes around the world. In July 2015, there were 736 institutions of higher education, from over 50 countries, which received AACSB accreditation.

AACSB (2009) lists 21 standards, needed to achieve the accreditation, with the detailed models of the standards and their interpretations: mission statement, intellectual contributions, student mission, continuous improvement objectives, financial strategies, student admission, student retention, staff sufficiency – student support, faculty sufficiency, faculty qualifications, faculty management and support, aggregate faculty and staff educational responsibility, individual faculty educational responsibility, student educational responsibility, management of curricula, undergraduate learning goals, undergraduate educational level, master's level general management learning goals, specialized master's degree learning goals, master's educational level, doctoral learning goals. The standard is extensive and detailed, and AACSB uses the 'best practice principles' to prescribe how to manage and monitor the efficiency of higher education institutions in the field of business.

2. Process orientation and strategic performance measurement in higher education institutions

2.1. Process Orientation as a Strategic Indicator of Higher Education Efficiency

The introduction of the EFQM model is closely coupled with process orientation of HEIs, according to Steed and Pupius (2003). They pointed out that a number of high education institutions, which have started to understand and appreciate the significance of processes and process work. This has led to the new ways of thinking which have a dramatic impact, especially at

strategic levels of management. With the implementation of the Excellence Model, the consultants who used EFQM have established that the awareness of the process orientation in terms of organisational learning is low, particularly across the higher education sector. The model suggests the need for a detailed review of processes and the development of a process architecture and strategy for process management.

The self-assessment, recommended by this model, often points to the unconnected nature of many activities in institutions of higher education, which often undertaken in isolation, rather than being linked through core or common processes, which would lead to a common way of thinking and working, elimination of activities with low value, etc. In this context, Ahmad, Francis and Zairi (2007) explored the critical success factors of business process reengineering in higher education. They have identified seven key factors, critical for the success of a BPR project at higher education institutions. They include teamwork and quality culture, quality management system and satisfactory rewards, effective change management, less bureaucratic and more participative, information technology/information system, effective project management and adequate financial resources. Out of those, the special importance is attributed to the information system of a HEI (Tolley and Shulruf, 2009).

Figure 3 shows the data sources, the users of information in the higher education institutions and the types of decision they are making. For the management of a higher educational institution the goal of the system is to manage the information, needed for making the right decisions (within the established goals) and provide the necessary feedback (GFME, 2008). This is why even the most complex contemporary information systems, such as the Enterprise Resource Planning packages, find their place higher education, as well.

2.2. Balanced Scorecard (BSC) and Process Orientation of HEIs

The Balanced Scorecard was developed by Robert Kaplan, a Harvard Business School professor, and David Norton, a consultant from Boston (Niven, 2003). In 1990, Kaplan and Norton were conducting research in new methods for performance measurement. Every measure selected for the scorecard represents the tool, which can be used by management for communication with the organizational stakeholders, as to present the outcomes, according to which the organization achieves its mission and strategic goals (or not). Management can monitor the way, in which departments create value for current and future clients, and decide if there is a need for internal improvement and investment in human resources, systems and procedures (Kaplan and Norton, 1996).

BSC is presented as being more than just a measurement system, as the innovative organizations use the scorecards as a strategic management system. Since the process of producing and maintaining the scorecard takes a long time, in stage one the organisations can develop an initial scorecard, with fairly narrow objectives; to gain clarification, consensus and strategy focus in order to communicate the new organisational strategy.

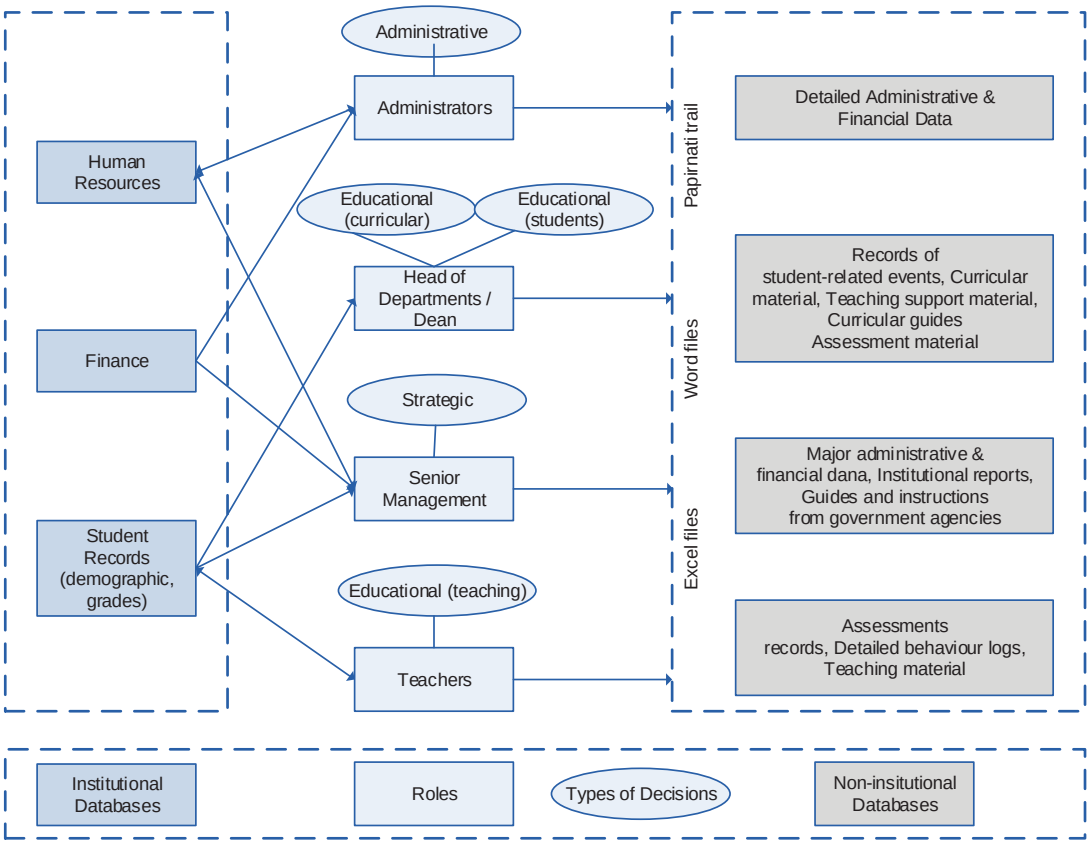


Figure 3. Information usage from the information system of a HEI (based on: Tolley and Shulruf, 2009)

This method provides a framework for performance assessment according to the 'four perspectives' (see Figure 4). They can be defined within the context of public and non-profit sector (Niven, 2003):

- *Customer perspective:* this perspective represents the organisation's ability to deliver quality products/ services, ensures delivery efficiency as well as the overall service and clients' satisfaction. In order to adapt this model in the public sector, the main performance monitoring criteria is somewhat different that in a strictly commercial surrounding; the future customers and other interested subjects have the advantage over financial results.
- *Financial perspective:* in the public sector financial perspective is quite different than the private perspective. The organisations' financial goals often have either enabling or limiting role, and they do not have to be the primary goal of the system and process within the organisation. This type of success should be measured by the efficiency with which the company meets various constituencies and its demands. However, the owner - in this context the state, still emphasizes the importance of financial efficiency and the significance of 'functioning' within the financial limits.
- *Internal business process perspective:* this perspective is focused on the internal business results which lead to financial success and satisfied customers. In order to fulfil the organisations' goals and customers' expectations, the organisations should identify the key business processes that they need to improve. The key processes are monitored in order to ensure satisfactory results.
- *Innovation, learning and growth perspective:* this perspective observes the employees' efficiency, the quality of the information system and the effects of the organisational activities when aiming for the organisational goals. The processes are successful only if they are performed by qualified and motivated employees using correct information. In order to satisfy clients' ever changing needs and expectations, the employees take on new

responsibilities, ad can be asked to have new skills, abilities, knowledge of technology and organisational solutions.

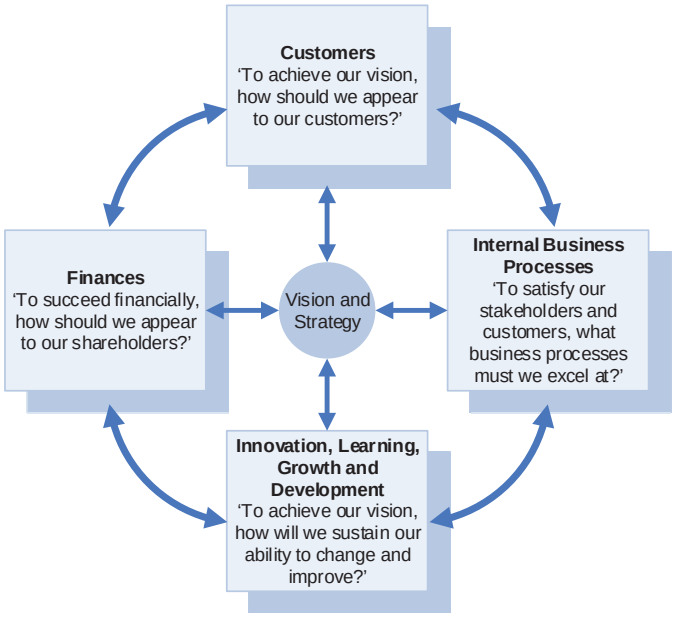


Figure 4. Balanced Scorecard (source: Kaplan and Norton, 1996)

Table 1 shows the BSC for a business college, with clearly visible four perspectives with their respective goals and indicators for their fulfilment.

Table 1. Implementation of Balanced Scorecard in a business college
(based on: Pupius, Hirst and Robson, 2003)

Financial Perspective		**Customer Perspective**	
Goals	**Measures**	**Goals**	**Measures**
Staying within the budget	Staying within the budget at the end of the year	Maintaining the interest for college	Achieving the planned enrolment quotas
Increase commercial income	Income	Development of partnership with foreign institutions	Recruiting Master Degree students
Increase the budget gained from research	Income	Maintaining product quality	The number of 'good' diplomas Employment rate of graduates
Increase the budget gained from foreign students	Income	Improvement on the 'open door' activities	Recruited students
		MBA and graduate marketing in the country and abroad	Enrolled students
		Maintaining commercial/ business partnership	Number and quality of signed contracts
		Upgrading the institution's profile abroad	Recruited students
		Promoting the institution's regional profile	Seminars
Internal Business Process Perspective		**Innovation, Learning and Growth Perspective**	
Goals	**Measures**	**Goals**	**Measures**
Integrated diploma programme	Elimination of the non-core subjects	Scientific research	Publications
Revising structural organisation	Simpler briefing process	Recruiting students for the job in a research centre	Registered Masters' Degree students

			Assigned scholarships
Revising administrative structure	Simpler briefing process	Development and publication of research centres' profiles	Seminars, Conferences, Guest speakers, Workshops
Developing and spreading of the MBA programme	Successful evaluation	Improving the institution's profile through scientific publications	Foreign magazine articles
Development and starting of a new programme and orientation	Number of the signed and enrolled students Successful orientation	Encouragement of the young researchers	Published articles / publications at conferences / working versions
Maintaining the curriculum and benchmarking	Successful periodic evaluation of the curriculum	Empowerment on the teaching activities	Peer evaluation of the curriculum

Pupius, Hirst and Robson (2003) also compared the EFQM Excellence Model and Balanced Scorecard by stating that, in its basis, this excellence model includes four perspectives of the BSC, with an additional aspect. It is related to the results for the community, which can be mapped into the customer's perspective of the BSC. Their mapping is illustrated in Figure 5.

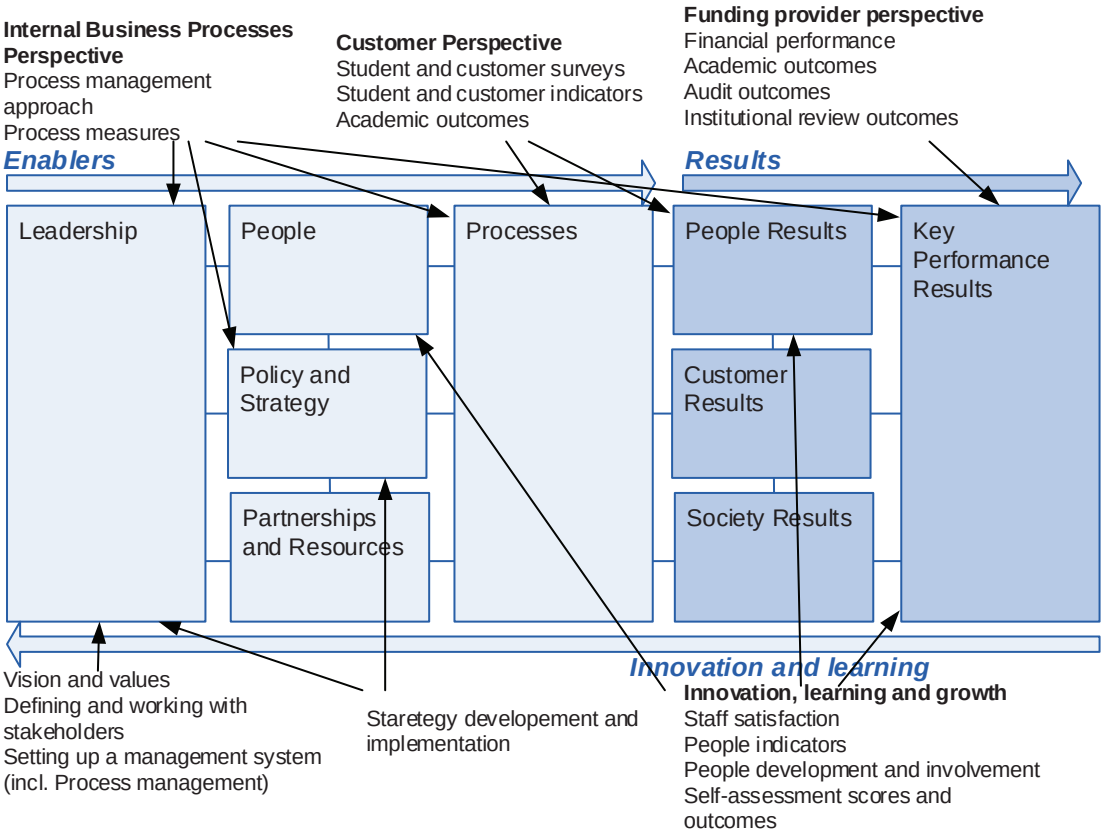


Figure 5. Mapping of Balanced Scorecard and the EFQM Excellence Model (source: Pupius, Hirst and Robson, 2003)

Measurement of results related to customers, people and the society is not adequately developed in the higher education sector. Besides, the institutions which conduct employees satisfaction surveys on a regular bases are hard to find, and very few institutions develop a comprehensive approach to processes management (or the Internal Business Processes Perspective in BSC). In addition, BSC emphasizes the performance efficiency of all the key business processes, rather than focusing on expenses and quality. At the beginning of its implementation, educational institutions can focus on specific processes, such as managing inquiries, schedule, or enrolment. In

later stages, high-level models can be targeted, as well. This can lead to defining an optimal organisational structure and the way in which the services are created and delivered.

3. Process orientation and strategic performance management in higher education: the case of faculty of economics split

In 2012, the Faculty of Economics in Split has started a project of modelling its processes with the purpose of documenting the Faculty's process structures and improving some of its activities within the BPM programme. By following ARIS methodology and using the ARIS Business Architect software, an integral repository of Faculty's business processes has been developed and set up. The main goals of this project were:

1. Meeting the legal demands set by the Croatian Ministry of Finance, as required by the legislation about the implementation of financial management and control in the public sector which are linked with the book of processes.
2. The beginning of implementing the process organisation. This is of critical importance, because it is the basis for the successful process management. The detailed review of all the processes with the proper documentation will enable a successful implementation of the Faculty's basic tri-fold mission.
3. Technological upgrade and maintaining the ISO standard. The quality management system of the Faculty of Economics has been established in 2005 and is based on ISO 9001:2002 norm. For the purpose of maintaining this certificate, continuous system improvements have to be made, i.e. a central repository of business processes should be established.

The complete project has been based on internal resources. The experts of the process area were the Faculty's employees, and their duties and responsibilities were to participate in workshops, dedicated to a specific process area. They described the sequencing and functions of the process area, verified the process models of higher and lower levels, identified the weak spots of AS-IS processes and suggested possible improvements. The sponsors of the project were the vice-dean for organisation and finance, and the dean, which ensured the management's support. All of the members of the project team were completely dedicated to the project and focused on quality and efficiency of the abovementioned goals. Mutual respect for differences, cooperative relationships, clear and open communication and equal participation were expected from the team members.

Two of the ARIS platform products were used for this project – ARIS Business Architect and ARIS Business Publisher which have been donated by Software AG Adriatics – IDS Scheer d.o.o. Croatia for internal usage and teaching requirements. The methodology used by IDS Scheer comes from their ARIS tool and has been confirmed through its application in various projects. Different levels of process model describe the organisation as a whole. Modelled processes are illustrating the way in which the product/service is formed, from user input through organisation and back to the user (end-to-end processes). The whole process architecture was developed on workshops-interviews with a large number of employees in all organisational units of the Faculty.

The processes developed by the project were developed through modelling, documenting and setting up a repository of the existing (AS-IS) business processes of the Faculty of Economics in Split. This includes:

1. Creation of Organisation Chart Diagram;
2. Setup of the business processes repository on a selected technological platform and available within the network;
3. Devising the process architecture ('Value Added Chain' diagrams for high level models, 'Event driven process chain' for detailed models);
4. Modelling 360 detailed process models which identify and describe all important activities of the Faculty;

5. Interconnecting process functions with the elements of organisational structure, documents and information systems;
6. Supporting management of the Faculty in analysing the business process models and developing suggestions for their improvements.

During the period of eight months, all relevant business processes (AS-IS) have been described and documented. They represent the foundation for the later analysis as to determine and eliminate/reduce weak points, and to design improved business processes models. The map of Faculty's process has been created with three defined levels of process: management processes, core processes and support processes. This standard, top-down categorisation of processes has been used, since the mapping starts with a high-level process map (Figure 6) and continues down to the activity level.

During interviews with the employees of the Faculty and the modelling and process verification, weak points and KPIs have been identified and documented for the purpose of qualitative and quantitative analysis of the existing processes. In the next stages of the project, this documentation and data will be used to improve the existing processes and to serve as a starting point for the creation of a software-based system for strategic management of Faculty's performance.

4. Conclusion

Several management models (EFQM, EQUIS and AACSB), taking into account process-based organisation of HEIs have been presented. In terms of strategic management of HEIs, the widely used BSC has been presented, using a relevant example of a HEI, provided by Pupius, Hirst and Robson (2003). The link between EFQM model and the BSC is apparent: the EFQM Excellence Model incorporates the important elements of the BSC philosophy and implementation, while BSC can be used as one of the approaches in EFQM implementation and the design of an integrated performance system (Lamotte and Catrer, 1999). Most of the higher education institutions are conducting an analysis of students' satisfaction, but only a few survey their employees and other stakeholders. This is one of the major shortcomings in several dimensions of the functioning of HEIs, since it is related both to their quality assurance system (as the component of a more comprehensive performance management system), as well as to their process orientation.

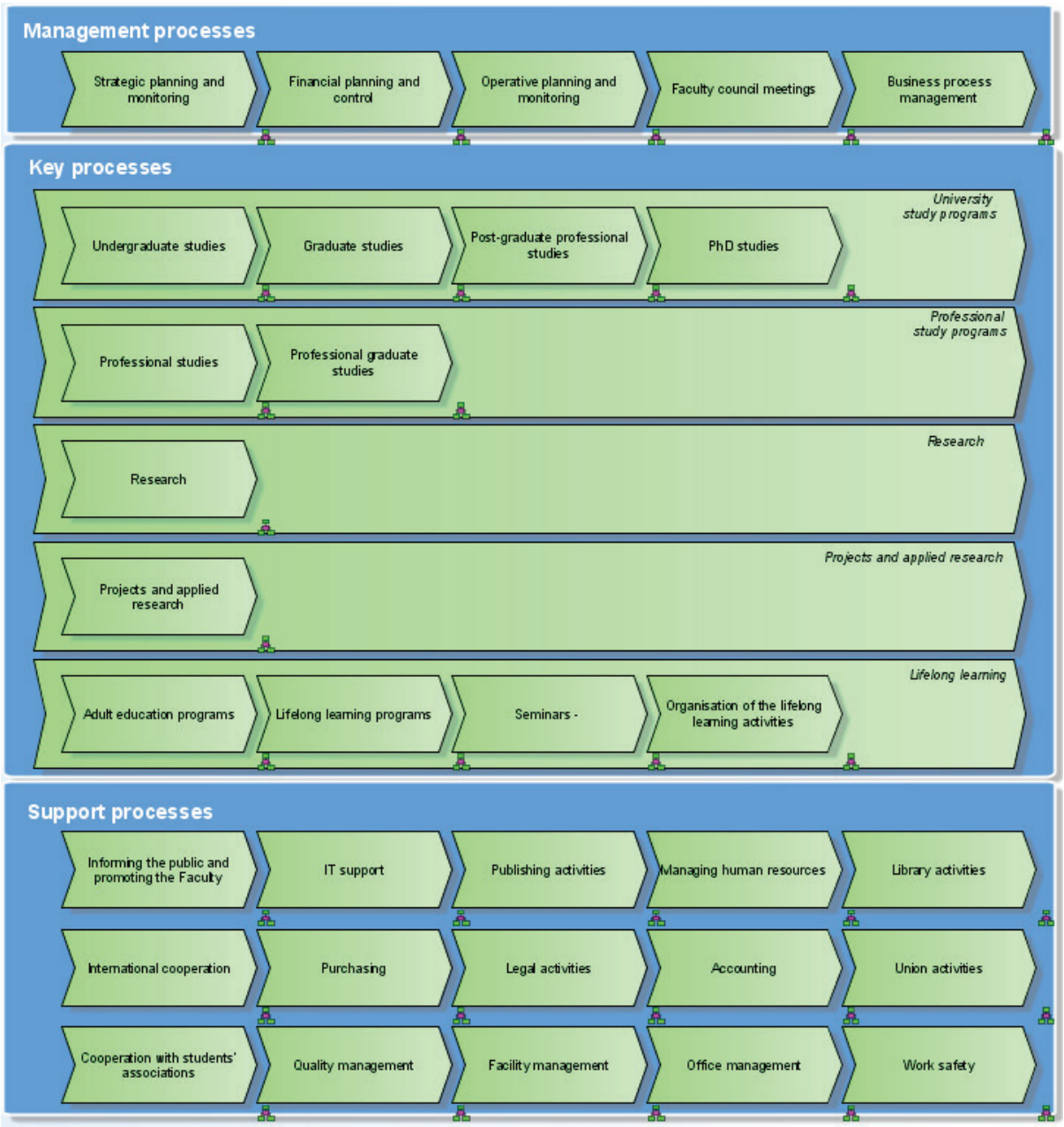


Figure 6. Process map of Faculty of Economics in Split

This is a rationale for the development of a more comprehensive approach to decision-making in the higher education, which should be based on a comprehensive methodology for strategic decision-making and monitoring of its implementation in HEIs. As an important aspect of successful implementation and monitoring of strategic decisions, one of the current scientific projects in Croatia focuses on the importance of KPIs for monitoring the implementation of strategic decisions. Those decisions are further based on the concepts already outlined in this paper, including the Balanced Scorecard (BSC), the Enterprise Architecture for BPM (supported by the ARIS tools), etc. (Divjak, 2014). It is expected that the research model, proposed by this project, will provide a valuable insight into the strategic process-based performance management and will be driving the institutions of higher education in the wider region into the direction of forming business process repositories and analyzing business process, as to assure quality in the academic setting.

Bibliography

1. AACSB website (2015). http://www.aacsb.edu (accessed 01.07.2015.)
2. AACSB (2009). Eligibility Procedures and Accreditation Standards for Business Accreditation, AACSB International.
3. Ahmad, H., Francis, A. and Zairi, M. (2007). Business process reengineering: critical success factors in higher education. *Business Process Management Journal*, 13(3), pp. 451-469. DOI 10.1108/14637150710752344
4. Al-Hawaj, A. Y., Elali, W. and Twizell, E. H. (Eds.) (2008). *Higher Education in the Twenty-First Century: Issues and Challenges*. London: Taylor & Francis Group.
5. Barnabe, F. and Riccaboni, A. (2007). Which role for performance measurement systems in higher education? Focus on quality assurance in Italy. *Studies In Educational Evaluation*, 33(3/4), pp. 302-19. DOI 10.1016/j.stueduc.2007.07.006.
6. Deem, R., Hillyard, S. and Reed, M. (2007). *Knowledge, Higher Education, and the New Managerialism: The Changing Management of UK Universities*, New York: Oxford University Press Inc.
7. Divjak, B. (2014). Development of a methodological framework for strategic decision-making in higher education – a case of open and distance learning (ODL) implementation. Research project proposal.
8. EFMD (2009a). EQUIS (European Quality Improvement System): The EFMD accreditation for international business schools - EQUIS Process Manual, European Foundation for Management Development.
9. EFMD (2009b). EQUIS Standards, European Foundation for Management Development.
10. EFQM website (2015). http://www.efqm.org/en/tabid/132/default.aspx (accessed 01.07.2015.)
11. EFQM (2003). EFQM Excellence Model. Public and Voluntary Sector Version. EFQM. Brussels.
12. GFME (2008). *The Global Management Education Landscape: Shaping the future of business schools*, Global Foundation for Management Education.
13. Hutton, G. (1996). BPR-overcoming impediments to change in the public sector. *New Technology Work and Employment*, 10(2), pp. 147-151.
14. Johnstone, A., Wild, J. and Steed, C. (2003). Applying Self-Assessment against the EFQM Excellence Model® in Further and Higher Education, Consortium for Excellence in Higher Education, Sheffield Hallam University.
15. Kaplan, R. S. and Norton, D. P. (1996). The Balanced Scorecard: Translating Strategy into Action, Harvard Business School Press, Boston.
16. Knust, M. and Hanft, A. (Eds.) (2009). *Continuing Higher Education and Lifelong Learning: An International Comparative Study on Structures, Organisation and Provisions*. Springer Science & Business Media, Heidelberg.
17. Lamotte, G. and Carter, G. (1999). Are the Renaissance Balanced Scorecard and the EFQM Excellence Model mutually exclusive or do they work together to bring added value to a company? Final Draft - Prepublication version, EFQM Common Interest Day.
18. Niven, P.R. (2003). Balanced scorecard step-by-step for government and not-for-profit agencies, John Wiley & Sons, Hoboken New Jersey.
19. Orsingher, Ch. (Ed.) (2006). *Assessing Quality in European Higher Education Institutions: Dissemination, Methods and Procedures*. Physica-Verlag: Springer, Heidelberg.
20. Porter, L. J. and Tanner, S. J. (2004). *Assessing Business Excellence: A guide to business excellence and self-assessment*, 2nd Ed, Elsevier, Amsterdam.
21. Pupius, M., Hirst, J. and Robson, A. (2003). Linking the EFQM Excellence Model® to other Management Models and Tools, Consortium for Excellence in Higher Education, Sheffield Hallam University.
22. Saraiva, P., Rosa, M.J. and Orey, J. (2003). A Large-Scale Application in Portuguese Schools of the EFQM Excellence Model, *Quality Progress*, 36(11), pp. 46-51.

23. Steed, C. and Pupius, M. (2003). Embracing Excellence in Education, Consortium for Excellence in Higher Education, Sheffield Hallam University.
24. Tolley, H. and Shulruf, B. (2009). From Data to Knowledge: The interaction between data management systems in educational institutions and the delivery of quality education. *Computers and Education*, 59, pp. 1199–1206. DOI 10.1016/j.compedu.2009.06.003

Acknowledgement

This work has been partly supported by the Croatian Science Foundation under the project IP-2014-09-7854: HigherDecision.

SCIENTISTS AT MANAGERIAL POSITIONS IN HIGHER EDUCATION

Prof. Dražena Gašpar[182]

Mirela Mabić[183]

Abstract

The paper presents results of research related to the effect of managerial positions on academic careers in higher education made by the authors at the public universities in Bosnia and Herzegovina.
The first research was conducted last year while this research presents its continuation. In the first research the authors conducted online and offline survey of representative number of former and actual rectors, vice rectors, deans and vice deans at public universities in Bosnia and Herzegovina. The authors developed questionnaire used in the first research in order to investigate the perception related to the effect of managerial position on development of academic careers in the public higher education institutions in Bosnia and Herzegovina. In the new research authors extended survey on academics who have never been on managerial positions in order to make a comparison of attitudes of scientists at managers positions and "pure" scientists related to the effect of managerial positions to academic careers.
Today's universities are competing for funding and resources in a global marketplace and responding through the adoption of more 'business-like' approaches to leadership, management and performance. With an increasingly competitive environment at institutional level, it is likely that universities will attempt to enhance organisational performance and outputs in ways that are aligned with organisational strategy whether or not they match the values, identities and/or aspirations of academics per se. This dynamic will inevitably put pressure on 'academic leadership'. Concerns relating to institutional brand, market position and performance may drive academic management in ways that meet 'corporate', rather than 'academic', priorities.
Universities in Bosnia and Herzegovina have a weak tradition of leadership and management. Leaders as rectors, deans, and heads of department traditionally have operated in a way that professors 'taking turns' for a few years on this kind of tasks. Unfortunately, even new regulations in BH higher education state academic title as the main requirement for rector or dean position, instead experience in management. During the process of election of rector/dean there is no obligation for potential candidates to prove their managerial skills. It is obvious that, at least in institutional acts, the urgent need for increased managerial approach in higher education has not been yet recognised in Bosnia and Herzegovina.
The aim of this research was to make a comparison of attitudes of former and actual rectors, vice rectors, deans and vice deans and "pure" scientists related to the effect of managerial positions to academic careers.

Key words: *Higher education, Management, Academic careers*

[182] Faculty of Economics - University of Mostar, Matice hrvatske bb, 88000 Mostar, BiH drazena.gaspar@sve-mo.ba

[183] Faculty of Economics - University of Mostar, Matice hrvatske bb, 88000 Mostar, BiH, mirela.mabic@sve-mo.ba

Introduction

Today, European universities have to cope with the major challenges like Bologna reforms, the building of the European research and higher education area (EHEA and ERA) and increasing global competition. Universities are forcing to compete for funding and resources in a global marketplace and in order to be successful they need the adoption of more 'business-like' approaches to leadership, management and performance. In times of financial constraints and when pressures from within the institution as well as from outside are high, there seems to be quite a strong tendency to confuse leadership with the effective handling of financial and management issues. Thus three types of leadership seem to be essential in order to ensure that the change to autonomy for universities is a winning one also for those within the institution (EUA, 2007):

- Visionary leadership means the capacity to look at the existing myths on which many universities are based and consider their validity today. This would bring about a new self-understanding compatible with the needs of academics and the demands of society. This is essential, since poor career structures and mechanistic assessment procedures can threaten the process of identity building. Thus, to be visionary means to be capable of not simply buying into the Zeitgeist but reinforcing the university's capacity to think ahead.
- Informed leadership addresses the issue of reconciling strong leadership with broad consultation structures. While collegial decision-making bodies might have led to lengthy decision-making routines without clear responsibility structures, at the same time they were inclusive. Informed leadership would have to recreate this idea of inclusion in new ways.
- Finally, creative leadership needs to interact with elements/structures in their environment in order to shape and control the universities' relations of dependencies. While strategic choices have to be made within the limits imposed by the universities' environment, the potential radius of action can be widened when creative and flexible internal institutional environments are provided. Creative leadership thus means rebuilding niches within the institution which do not necessarily follow criteria imposed from the outside.

These are three main aspects of what leadership should mean in an autonomous university. But, analysis of those three types of leadership could show that universities have a certain capacity to develop that still needs to be fully exploited.

With an increasingly competitive environment at institutional level, it is likely that universities will attempt to enhance organisational performance and outputs in ways that are aligned with organisational strategy whether or not they match the values, identities and/or aspirations of academics per se. This dynamic will inevitably put pressure on 'academic leadership'. Concerns relating to institutional brand, market position and performance may drive academic management in ways that meet 'corporate', rather than 'academic', priorities.

The most of the recent research (EU and non EU) related to leadership and management of higher education (LFHE, 2012; OBHE, 2013; OECD, 2013) and human resource management (AH, 2012; TEMPUS 2012) have recognised that the acquisition of management and leadership competences is pivotal for institutional autonomy and the shaping of an organisation. Namely, people management is a task which cannot be delegated and which requires leaders who are aware of the demands of their position and who are prepared to take charge (OBHE, 2013). Namely, for many academics, the role of manager-leader is often a part-time role and one which is held for a limited period of time. Also, processes of leadership and management are subject to a complex set of checks and balances through several governance, executive and academic bodies. Attempting to make change happen and be sustainable over time therefore requires high levels of influencing skills together with political awareness and astuteness (OBHE, 2013).

General conclusion is that universities still tend to give little relevance for requirement of successful managers and leaders. Some problematic issues concern the lack of open competition for positions in senior management, their often politicised selection or appointment, the lack of adequate selection criteria based on the managerial skills needed by the institutions, the lack of training opportunities or training requirements and the different kinds of political pressures that institutional management may be subjected to.

One of the problems, very often neglected, is that in the most EU countries the main requirement for university management positions is adequate academic title (per example – full time professor for rector position), not managerial skills. Since managerial positions are full time jobs that do not leave a lot of time for academic work, it is not unusual that younger academic staff avoid these positions because of fear that they could threat their academic careers (Gašpar & Mabić, 2014).

In this paper are presented results of research related to the effect of managerial positions on academic careers in higher education made by the authors at the public universities in Bosnia and Herzegovina. This research is continuation of research conducted last year. Namely, in the first research the authors conducted survey of representative number of former and actual rectors, vice rectors, deans and vice deans at public universities in Bosnia and Herzegovina. In the new research authors extended survey on academics who have never been on managerial positions in order to make a comparison of attitudes of scientists at managers positions and “pure” scientists related to the effect of managerial positions to academic careers.

Research methodology

The research was based on a survey of scientist manager (former and actual manager of the HEI - rectors, vice rectors, deans and vice deans) and “pure” scientists at public universities in Bosnia and Herzegovina. Survey was conducted online (online survey) and offline (questionnaires in paper form) in two rounds (the first in 2014 and the second in 2015 year). In the first round of survey (2014) were explored attitudes of academic staff that have been on managerial position in the HEI (former and actual rectors, vice rectors, deans and vice deans). The results of that research were presented last year at REDETE Conference (Gašpar & Mabić, 2014). The second round of survey was conducted in 2015 and included only academic staffs that have never been on managerial position in the HEI. The main goal was to make comparison of those two surveys. The last study included 62 respondents and their characteristics are:

- 34 (54.8%) males and 28 (45.2%) females.
- 27 (43.5%) scientist manager - former and actual manager of the HEI (rectors, vice rectors, deans and vice deans) and 35 (56.5%) “pure” scientists.

Generally, questionnaire had two main parts. First part contained general information about respondents (gender, age, managerial position) while second part contained set of 15 the statements related to the harmonization of scientific and managerial career in the public higher education institutions (HEI). Mentioned set of statement is shown in the table 1.

Table 1: Set of the statements

Code	Statements
T1	One can be a good scientist and a good manager at the same time
T2	Teaching activities suffer if the teacher is on the managerial position in the HEI
T3	Scientific activities suffer if the teacher is on the managerial position in the HEI
T4	HEI should be managed by professional managers
T5	HEI should be managed by persons who are not included in teaching activities
T6	Scientists cannot manage HEI
T7	Scientists cannot be good managers

Code	Statements
T8	To perform managerial functions in the HEI, one needs to have management practices in the other companies
T9	To perform managerial functions in the HEI one should have been trained in management
T10	Development of academic career together with the management functions at the HEI seeks additional personal efforts
T11	One at managerial function in the HEI should has lower teaching work load
T12	Engagement on managerial positions should be evaluated for academic titles promotion criteria.
T13	Teaching activities could prevent a person who is on the managerial position in the HEI to completely devote to managerial activities
T14	Scientific activities could prevent a person who is on the managerial position in the HEI to completely devote to managerial activities
T15	Scientific and managerial career (managing HEI) could be well matched

Source: prepared by authors

Data were analyzed in SPSS for Windows, version 17.0. Results were expressed in absolute (f) and relative frequencies (%). The differences in the attitudes of scientists managers (former and actual manager of the HEI - rectors, vice rectors, deans and vice deans) and "pure" scientists at public universities in Bosnia and Herzegovina were tested by X^2 test. In the absence of the expected frequencies, Fisher's exact test was used. The level of significance was p=0.05.

Research results

Distribution of respondents according to the agreement or disagreement with the statements related to the harmonization of scientific and managerial career is shown in the table 2.

Table 2: Agreement/disagreement with the statements

Code		Disagree		No opinion		Agree		P*
		f	%	f	%	f	%	
T1	SM	10	37.0	3	11.1	14	51.9	**0.022*^{A}**
	PS	7	20.0	15	42.9	13	37.1	
T2	SM	9	33.3	6	22.2	12	44.4	0.728^{A}
	PS	9	25.7	7	20.0	19	54.3	
T3	SM	7	25.9	7	25.9	13	48.1	0.955^{A}
	PS	8	22.9	9	25.7	18	51.4	
T4	SM	14	51.9	9	33.3	4	14.8	0.103^{A}
	PS	16	45.7	6	17.1	13	37.1	
T5	SM	17	63.0	6	22.2	4	14.8	0.578^{A}
	PS	19	54.3	7	20.0	9	25.7	
T6	SM	22	81.5	5	18.5	0	0	0.474^{B}
	PS	24	68.6	9	25.7	2	5.7	
T7	SM	22	81.5	4	14.8	1	3.7	0.596^{B}
	PS	24	68.6	8	22.9	3	8.6	
T8	SM	14	51.9	3	11.1	10	37.0	**0.011*^{A}**
	PS	13	37.1	16	45.7	6	17.1	
T9	SM	7	25.9	8	29.6	12	44.4	0.881^{A}
	PS	11	31.4	9	25.7	15	42.9	

Code		Disagree		No opinion		Agree		P*
		f	%	f	%	f	%	
T10	SM	0	0	4	14.8	23	85.2	0.162[B]
	PS	4	11.4	3	8.6	28	80.0	
T11	SM	1	3.7	5	18.5	21	77.8	0.258[B]
	PS	5	14.3	3	8.6	27	77.1	
T12	SM	10	37.0	2	7.4	15	55.6	0.056[B]
	PS	16	45.7	9	25.7	10	28.6	
T13	SM	7	25.9	9	33.3	11	40.7	0.794[A]
	PS	7	20.0	11	31.4	17	48.6	
T14	SM	8	29.6	10	37.0	9	33.3	0.719[A]
	PS	8	22.9	12	34.3	15	42.9	
T15	SM	4	14.8	5	18.5	18	66.7	0.173[A]
	PS	8	22.9	12	34.3	15	42.9	

SM – Scientist manager; PS – "Pure" scientists;
* Results are significant at level 0.05
f – Number of respondents; [A] - X^2 test; [B] – Fisher's Exact test;
Source: author's calculation

The results show that statistically significant differences exist between respondents' answers on statement T1: "*One can be a good scientist and a good manager at the same time*" and T8: "*To perform managerial functions in the HEI, one need to have management practices in the other companies*". As it was expected, scientists managers (former and actual manager of the HEI - rectors, vice rectors, deans and vice deans) more agree with statement T1 then "pure" scientists. Also, more of them disagree with statement T8. When to those results are added more than a half of scientists managers (precisely 66.70%) which thought that is possible to well-match scientific and managerial career (governance of HEI), it could be conclude that scientists managers thought that could in the same time conduct both functions, although both need significant engagement. Of course, one number of "pure" scientists shares their opinion, but their proportion by comparison with scientist managers is relatively small.

Less than half of respondents from both group thought that one has to have education from the field of management in order to be at managerial functions in the HEI

Although there is no statistically significant differences on statement T12: "*Engagement on managerial positions should be evaluated for academic titles promotion criteria*" (P value is slightly higher than set up significant level) between scientist managers and "pure" scientists, it could be noticed difference in their opinions – 45.7% of "pure" scientists disagree with that statement (with added respondents without opinion, it is more than 70%) against 37.0% of scientist managers. On the other hand, ratio of agreement scientist managers and "pure" scientists is 55.6% versus 28.6%. It is obvious that percentage of agreement at the scientist managers is significantly lower from expected. Namely, it was expected that scientist manager would agree with that statement because it is to their benefit.

Both groups of respondents thought that teaching and scientific activities suffer if academic person performs managerial function in the HEI. Percentage of respondents that agree with statements T2 and T3 is about 50%, although higher agreement was expected in the group of "pure" scientists. From additional comments by respondents it could be concluded that scientists engage in management of HEI in order to contribute to HEI's development, improvement, quality assurance

and reaching excellence. They are all convicted that they are capable to do that, but in the same time, they do not want to give up form science (their true "love").

Also, more than ¾ of respondents from both groups thought that development of academic career together with the management functions at the HEI seeks additional personal efforts (T10) and that persons at managerial function in the HEI should has lower teaching work load (T11).

Although in the group of "pure" scientists the level of agreement with statements T4 and T5, meaning with statements that emphasised the necessity that HEI should be managed by professional managers instead of academic staff, is not high (37.1% for T4 and 25.7% for T5), it is higher than in the group of scientist managers. Here was expected that the ratio of "pure" scientist which disagree will be higher, because both scientific and teaching activities seek from person full engagement. If all three roles (scientific, teaching and managerial) should be joined in one person, it seeks for exceptional personal efforts.

The attitudes of respondents are similar when statement T6 and T7 are in question. Namely, 68.6% of "pure" scientists disagree with those statements, while percentage of scientific managers is even higher – 81.5%. Such results show that all respondents have good opinion on scientists and thought that they could be good managers. Of course, this opinion should be taken with reserve because judging about quality of managers and their abilities of leadership should be based on their achieved results. Also, it is necessary to say that those statements could not be analyzed in isolation, but in context of all others, although the general conclusion is that opinion about scientist as managers is very positive.

Instead of the conclusion

In former paper (Gašpar & Mabić, 2014) we conclude that would be interesting to make a comparison of attitudes of scientists/managers and "pure" scientists, i.e. academics who have never been on managerial position, and we did that in the latest research presented in this paper. Of course, it is necessary to stress that number of respondents (62) is small, but research is not yet finished. In one point of time, the cut was made, and those results were presented in this paper.

The results show that analyzed groups of respondents have statistically significant differences related to their attitudes about necessary previous practical managerial experiences (T8) and about possibility to adequately harmonize both careers, scientific and managerial (T1). Naturally, as it was expected, scientist managers thought that they could be successful in both careers at the same time. As expected, "pure" scientists have opposite opinion about the same issue. Also, there are differences in the attitudes towards the statement that engagement on managerial positions should be evaluated for academic titles promotion criteria (T12).

Both groups of respondents have similar opinions related to statements that teaching and scientific activities suffer if the teacher is on the managerial position in the HEI (T2 and T3), as well as about need for additional personal efforts if someone want to be successful in both careers (T12).

In the paper was already stressed that higher level of agreement was expected related to some statements. The reasons for divergence could lay in the size of sample, as well as in the fact that respondents from the group of "pure" scientist were relatively young (between 26 and 52 years old), mostly with the academic title (assistant or assistant professor) which is not adequate for any managerial position at HEI. So, it could be assumed that the most of respondents are still fully focused on their academic careers.

At the end, it could be concluded that adequately increase of the sample should allow a comparison of attitudes toward multiple criteria - by gender of respondents, reasons for accepting the managerial position at HEI, areas of science. Besides that, the further research should include questions about the possible reasons for regret and remorse for accepting managerial positions and whether and how HEI managers invest in their training in the field of management.

Literature

1. AH (2012). 2012 Higher Education Survey: The State of HR Effectiveness, Aon Hewit http://thinkmissionexcellence.maine.edu/wp-content/uploads/2013/06/2012_AHHigherEd_Survey_HRe.pdf (accessed 02.12.2013.)
2. EUA (2007). Managing the University Community: Exploring Good Practice, ed. Conraths, B., Trusso, A., European University Association, Brussels http://www.eua.be/fileadmin/user_upload/files/Publications/Managing_the_University_Community.pdf (accessed 20.11.2013.)
3. Gašpar, D., Mabić, M. (2014): *Managerial Positions And Academic Careers In Higher Education*, 3rd REDETE Conference: Researching Economic Development and Entrepreneurship in Transitinal Economies, Banja Luka, BiH (10.-11.4.2014.)
4. LFHE (2012). Academic Leadership: Changing Conceptions, Identities and Experiences in UK Higher Education - Summary Report, Research and Development Series, Leadership Foundation for Higher Education, London, http://www.lfhe.ac.uk/en/research-resources/publications/index.cfm/S3%20-%2004.1, (accessed 08.01.2014.)
5. OBHE (2013). Horizon Scanning: What will higher education look like in 2020?, The Observatory on Borderless Higher Education, London, http://www.obhe.ac.uk/documents/view_details?id=934 (accessed 08.01.2014.)
6. OECD (2013). The State of Higher Education 2013, ed. Glass, A., OECD Higher Education Programme (IMHE), OECD http://www.oecd.org/edu/imhe/StateofHigherEducation2013-ExecutiveSummary.pdf (accessed 08.01.2014.)
7. TEMPUS (2012). Human Resource Management in Public Higher Education in the Tempus Partner Countries, Tempus Issue 10, June 2012, http://eacea.ec.europa.eu/tempus (accessed 02.12.2013.)

THE LOCAL ECONOMIC IMPACT OF UNIVERSITIES: AN INTERNATIONAL COMPARATIVE ANALYSIS

Balázs Kotosz, PhD[184]

Marie-France Gaunard-Anderson, PhD[185]

Miklós Lukovics, PhD[186]

Abstract

Nowadays the realization that certain economic units, universities or other objects have impact on the economy of their region comes more and more into prominence. A growing demand appears to generate more precise studies regarding the quantification of economic impact of these entities. The topic of the examination of economic impact is especially interesting and exciting when we can compare regions with different level of development, but with the presence of an internationally successful university. The local economic impact of a large tertiary education institution such as a university is an issue which has attracted considerable attention in literature. Different methods used in literature make results hardly comparable, we use the same method to investigate universities in different countries: in the lack of regional input-output matrices a multiplier based approach for first and second missions (education and research), while an application of Jongbloed's indicator set for third mission. Generally, there are four substantial problems. First, the definition of impact, second, measuring and estimating first-round expenditures and avoiding double-counting, third, estimating the correct value of the multiplier, fourth, the quantification of the third mission activities.

The economic impact study has become a standard tool used by Western universities to persuade state legislatures of the importance of expenditures on higher education. As economic impact studies become a political tool in the review of education, conservative assumptions and methods should be used to promote objectivity in the research process.

The goal of our study is to unravel the effects and impact of the University of Szeged (Hungary) and the University of Lorraine (France) regarding their local economy. The topic is quite unique, as the NUTS2 regions in which the examined universities are located in a lagging behind region compared to national average, but per capita GDP is 3.6 higher in Lorraine. On the other hand these universities have the institutional ranking around the 500th place as published on the Academic Ranking of World Universities and employers of about 7000 employees. The socio-economic welfare of the region supposedly depends on the university in Hungary, nevertheless the same amplitude in France. The goal of the study is to attempt the quantification of this presumption.

As our results show, the impact per student is in the same magnitude in both countries, however third mission is much more implemented in France. The reasons of this difference can be found in historical facts and in different level of economic development.

Keywords: *local impact, university, Hungary, France*

[184] University of Szeged, H-6722 Szeged, Kálvária sgt. 1. Hungary, kotosz@eco.u-szeged.hu

[185] University of Lorraine, 57045 Metz, Ile de Saulcy, France, marie-france.gaunard@univ-lorraine.fr

[186] University of Szeged, H-6722 Szeged, Kálvária sgt. 1. Hungary, miki@eco.u-szeged.hu

Introduction

Nowadays the realization that certain economic units, universities or other objects have impact on the economy of their region comes more and more into prominence. A growing demand appears to generate more precise studies regarding the quantification of economic impact of these entities. The topic of the examination of economic impact is especially interesting and exciting when we can compare regions with different level of development, but with the presence of an internationally successful university.

The roles of universities are also changing in time. As Wissema (2009) suggested, there are three generations of universities, while Pawlowski (2009) already mentioned fourth generation universities. The characteristics of these universities are summarized in Table 1.

Table 1. Characteristics of first, second, third and fourth generation universities

Aspect	First generation universities	Second generation universities	Third generation universities	Fourth generation universities
Goal	Education	Education and research	Education, research, and utilization of knowledge	Education, research, R+D+I, utilization of knowledge, and proactive economic development
Role	Protection of truth	The cognition of nature	Creation of added value	Local economic accelerator, strategy determination
Output	Professionals	Professionals and scientists	Professionals, scientists, and entrepreneurs	Professionals, scientists, entrepreneurs, and competitive local economy
Language	Latin	National	English	Multilingual (national and English)
Management	Chancellor	Part-time scientists	Professional management	Professional management and local experts

Source: Based on Lukovics-Zuti, 2013; Lukovics-Zuti, 2014; Zuti-Lukovics, 2014

The local economic impact of a large tertiary education institution such as a university is an issue which has attracted considerable attention in literature. Different methods used in literature make results hardly comparable, we use the same method to investigate universities in different countries: in the lack of regional input-output matrices a multiplier based approach for first and second missions (education and research).

The structure of the paper is the following. In the first part, we take a theoretical overview of the impacts of universities. In the second part, we focus on measurement methods, solutions and problems. The empirical evidence for the two universities are shown in part 3, followed by a conclusion including a summary of open questions.

Theoretical overview

The local economic impact of a large tertiary education institution such as a university is an issue which has attracted considerable attention in literature. Beck et al (1995, 246) define economic impact as „the difference between existing economic activity in a region given the presence of the institution and the level that would have been present if the institution did not exist."

Florax (1992) and with modifications Garrido-Iserte and Gallo-Rivera (2010) showed that the regional and local effects of a university can be observed in many fields beyond economy.

Dusek (2003) sorts the impact into input and output side effects (with students on both sides, see Table 2 and 3). He highlights the role of budget links as an important (economic) factor; the

main financial source of the university is the government budget. These classifications are not far from the Segarra I Basco (2003) model, who divided backward and forward effects. Among the forward effect localization factors (instead of attractiveness) he also mentions foreign investment and high-tech companies (that are typical actors of technopolis type clusters).

Table 2. Regional/local impacts of universities on the input side

Actor	Changes
Households	+ income + employment + consumption
Local authority	+ tax base + services
Business	+ volume of business

Source: After Dusek (2003)

Table 3. Regional/local impacts of universities on the output side

Factor	Changes
Human capital	+ qualification + new firms + migration
Knowledge	+ university-business relations + extensive use of resources
Attractiveness	+ location choice of households and firms + cultural and social possibilities
Business	+ research and development, exhibitions

Source: After Dusek-Kovács (2009)

Huggins and Cook (1997) transferred the keywords into drivers and outcomes, and in their approach, one cannot find hard measures on the driver side, while hardly have soft outcomes.

Brown and Heaney (1997) concluded that the input size effects may be better measured than output side effects, while the third mission of universities, the knowledge transfer has mainly social impacts. Notwithstanding, Beck et al (1995) argues that social (human capital) factors must be heeded, unless the major part of impacts would not be incorporated.

Pellenbarg (2005) modified the table of Lambooy to achieve a complete list of economic impacts (see Table 4). However, this classification is a wide mixture of impacts of the three main missions of universities (education, research and university-enterprise cooperation).

Table 4. Regional/local economic impacts of universities

Economic impacts of a university	Example
Employment at the university	Number of university jobs and related institutions
University income	State contributions, fees, benefits arising from entrepreneur activity, etc.
University expenditure	Purchase of goods and services by the university
Income and expenditures of the university employees	Wages and salaries, social security costs

Effects on the job market	Qualified job provision effect upon productivity; flexible working supply of the students
Generation of business	Companies created by university students and employees, with or without employment knowledge and technology
Knowledge marketing	The sale of knowledge in a variety of ways: from ideas, courses and patents

Source: Pellenbarg (2005)

Lengyel (2008) gives a more complex system on economic "effects", including many elements of the previous literature in a well-structured figure.

Garrido-Iserte and Gallo-Rivera (2010) also attached importance to the separation of short and long term effects, and constructed a matrix of impacts with subjective and objective long-term impacts on knowledge.

Brown and Heaney (1997) compare two approaches of the computation: the skill-based approach and the economic-based approach. These approaches are close to the logic of the knowledge and expenditures based classification.

Johnson (1994) argues to divide local and non-local (it is better a choice on which territorial level we identify impacts), direct and indirect impacts, but he also attends to various negative impacts of universities and to the necessity of a net approach (i.e. individuals could spend more, if the government did not tax them to be able to pay the expenditures of universities). The question of gross or net impact can be analyzed from many starting point. Generally, gross impact is easier to define and compute, as such questions arise that in the lack of the university what and where the staff would work, where students would pursuit their studies (if at all), how large the difference of knowledge in the local economy would be or what would be the difference of house prices. The higher is the analyzed territory, the less is the difference between gross and net impact.

The classification of impacts from the point of view that how directly the impact is related to the activity of the university is widely varied in the literature. We can find twofold, threefold, and fourfold classifications. In a larger classification, over direct and indirect impacts, we have induced impacts (Koophaus, 2008), while in the fourfold version, one can also find catalytic impacts (for these impacts see Lukovics-Dusek (2014a) and Lukovics-Dusek (2014b) for university-related research, or Dusek-Lukovics (2011) for business service). The modified version of these classifications stands for universities as:

- direct impact: output, income and workplaces created on-site owing to the investments and operation of the university,
- indirect impact: income and employment generated in the companies providing inputs for the university,
- induced impact: income and employment generated with the multiplier impact owing to spending the incomes,
- catalytic impact: productivity growth achieved through the operation of the university, the income and employment created through the companies settling because of the university and the spending of the visitors arriving because of the university.

The contradictory and sometimes misleading mélange of the impacts can be well shown by juxtaposing those of the Garrido-Yserte–Gallo-Rivera (2010) and the French school represented by Gagnol-Héraud (2001) and Baslé-Le Boulch (1999).

In this confusion, we would recommend to use induced impact to all effects that are generated by the multiplication process. In the Lukovics-Dusek classification, the separation of direct and indirect impacts is artificial (practically, we separate personal expenses from purchase of assets and investment, its cause can be the local analysis: on-site created income is always local – nevertheless not necessary locally spent). The catalytic impact of Lukovics-Dusek, the indirect impact of Gagnol-Héraud and the induced impact of Garrido-Yserte–Gallo-Rivera have almost the same content. While it not widespread in the literature, the catalytic expression better describe the content of this category than indirect or induced (induced seems to be the worst choice).

Methodology

The main methodological possibilities are the use of input/output matrix based models or the Keynesian multiplier model family. As up-to-date local or at least regional level input/output matrices are not available, we could not use the first type of models. The use of input/output models are typical in the USA where such matrices are accessible in state level. The simplicity of the multiplier method makes it so popular, as a relatively narrow scale of data is necessary. In our comparison, we will follow a version of regional multiplier model. The method we applied in Figure 3 and 4 is modification of Caffrey – Isaacs (1971) and Bridge (2005) models, we can also call as a simplified ACE model in the terminology of Garrido-Yserte–Gallo-Rivera.

The territorial scope of our analysis was local. In Szeged, the university is dominantly in the city (with one small faculty out of the city), in France we had the possibility for the survey only in Metz, and so a regional estimation of the impact of one campus would not be meaningful. Using a larger territorial scope would increase the absolute gross impact, but per capita or per GDP impact may be smaller.

Whenever it was possible, we used data for 2014.

In our paper, we followed the computations made in our earlier works (see Kotosz, 2013 or Zuti-Lukovics, 2015), using the same methodology, model and primary research agenda, so our results are fully comparable. The methodological background of the two-step estimation is described in Bleaney et al (1992) and Felsenstein (1997).

The multiplication effect is the function of the following factors:

- Personal income tax rate (average rate) [t]
- Value added tax (average rate) [n]
- Marginal propensity to consume [c]
- Local consumption proportion of students [d]
- Local consumption proportion of employees [e]
- Local consumption proportion of the college [b]
- Local consumption proportion of the local economy [f]

Armstrong-Taylor (2000) and Lengyel-Rechnitzer (2004) supposed a fix amount of spending of visitors and an equivalent local consumption proportion of students, employees and the college. Instead of the latest, we applied a two-step estimation, so different proportions could be used. Thereby the formula of the multiplier is:

$$\frac{1}{1-f\cdot c\cdot(1-t)\cdot(1-n)}$$

Expenditure data of the universities can be reached from public information. In the case of multi-campus institutions, allocation of expenditures by campus has been based on our estimation (when expenditures cannot be definitely allocated, we used keys related to relevant activities: number of students, number of academic/non-academic staff, area). We supposed an additional income of 20% of employees. Estimation of visitors' expenditures is based on conferences and other events attracting visitors.

To map expenditures of students, we asked them to fill in a questionnaire (in 2014 in Szeged, and in 2015 in Metz). This element was based on a representative sample, we multiplied the sample mean by the number of students enrolled at the university/campus.

To estimate the locally true consumption function, we can follow two different ways. From one part, we can use national statistics, as by empirical evidence (see Árvai-Menczel 2001, Vidor 2005) local and national functions are not significantly different. From the other part, local sample surveys can also serve as starting point. Our computations also showed that cross-sectional and time series data give largely different results, between 0.45 and 0.7 in both countries While Dusek (2003) found a high marginal propensity to consume in his survey of students (over 0.7), our results in Hungary are mostly below 0.5, while in France around 0.5. As a consensus, we used 0.6.

Due to the lack of reliable geographical knowledge of students, we preferred to choose the local level as the city where the university is located (Szeged and Metz). By extending the geographical area, higher rates a local consumption data is taken, increase is not proportional with distance.

The local consumption proportion of students varied around 70-80% based on our survey data (in accordance with previous data). This number is always higher than the rate of local students, which is around 30-40%. In our estimations, we used the value of 0.7 in Metz, and 0.8 in Szeged, as the results of the surveys.

Estimation of employees' local consumption proportion is one of the most problematic point of the process, as in neither cities we had not right to ask employees by a questionnaire similar to students' one. As a result of the suburbanization process, we supposed that local consumption proportion is lower than students', we used 75% in Szeged, but only 60% in Metz.

Local consumption proportion of the university is typically restricted by national law. Well-known estimation problems arises with the limitation of local level (see e.g. Székely 2013), but this question is beyond the goals of the paper. We analysed the official documents of the universities and estimated these impacts by separating local and non-local items. We used a 70% value for Szeged and 80% for Metz.

For the average tax rates, we used recent estimations of the Hungarian National Bank for Hungary, and Ministry of Finance data for France. While VAT rates are similar (16% in France, and 20% in Hungary), NUTS3 level average personal income tax rate is only 6% in Lorraine, while the national statistics of Hungary was 20.1% (for methodology, see Benczúr-Kátay 2010). This difference can be explained by inclusion of social security contributions.

Generally, in scientific papers on impact studies, there are only theoretical comparisons of previously applied methods, but we cannot find international comparative studies where invariable method has been used. Even with deficiencies, we can internationally compare the impact of the analyzed universities.

Empirical evidence and results

Even if the theoretical background is not unanimous, but well-known, estimation methods are wrought and discussed (see Siegfried et al, 2006 for a general comparison), and many international empirical example can be found in the literature (Armstrong 1993, Blackwell et al 2002, Bleaney et al 1992, Bridge 2005, Brownigg 1973, Caroll-Smith 2006, Cooke 1970, Huggins and Cooke 1997, Jabalameli et al 2010, Lewis 1988, Love and McNicoll 1988, Ohme 2003,Pellenbarg 2005, Robert-Cooke 1997, Simha 2005, Tavoletti 2007), until 2010 only one finished case study was known for Hungary, the case of the University of Győr (Széchenyi István University) (Dusek-Kovács, 2009). Some steps were also made in Pécs (Mezei, 2005), but this research has not reached the level of having at least one numerical result. An intensive phase of research started after 2010, the first results have been published in Kotosz (2012) and Kotosz (2013) for small colleges and in Zuti-Lukovics (2015) for the University of Szeged. In Dusek-Lukovics (2014) we can also find an example impact study of a research-oriented object.

In France, three scientific impacts studies are known, for the case of Strasbourg (Gagnol-Héraud, 2001), for Rennes (Baslé-Le Boulch, 1996), and for the University of Littoral (Mille, 2004). These papers can handle only partially the questions, without an expressed amount of euros (francs) as impact (except for Baslé-Le Boulch, 1999) where multiplier effects are also determined.

The higher education system in the two countries are similar in the sense that originally they are based on state-owned/state-financed universities, complemented by smaller private schools where education is more accentuated than research. As a soviet heritage in Hungary, an independent academic research center network survived. In France, research centers are integrated in the universities, often creating a matrix system of education and research. Education divisions may run under different names (faculties, education and research units, institutes). While in the Hungarian system, faculty positions are also divided to be lecturers and researchers, France academic staff members are lecturer-researchers.

The higher education in Hungary went through determining changes in the 1990s, which on the whole had an impact on the entire Hungarian society. Since the regime change the number of students has risen significantly, has nearly quadrupled. This tendency was noticeable both in the OECD and in the EU countries. However, in Hungary after the 2005/2006 academic year a decrease can be perceptible regarding the number of students. On the basis of data of 2008 we lag behind all the examined OECD countries, concerning the number of state-funded students per one million inhabitants. While this datum in Hungary was 21 324 heads until in Germany 24 639 heads and in Norway 38 409 heads (Harsányi-Vincze 2012). Since 2011 in Hungary the administration of higher education's institutions has transformed appreciably, and with this the organizational and administrational autonomy of the institutions, too. First, the appointment of rectors and economic directors was become the authority of the ministry, after that, budget commissioners were ordered to the institutions. In 2014 chancellery system was implemented.

The French higher education system had not realize such shocks, and the number of students has a growing trend with more than 2,400 thousand students in 2014.

The University of Szeged was founded in 1872, and has about 30,000 students and 12 faculties. After various historic events, in 2000 it unifies almost all faculties working in the city. The Faculty of Medicine integrates a clinical center (hospital) with activities that cannot be separated (financially) from the university. Szeged has around 170,000 inhabitants, in a region which is among the 20 poorest regions of the European Union (measured in per capita GDP).

The first university in Metz was founded in 1970 based on smaller higher education institutions already existing in the city. In 2012, the universities of the Lorraine region have been

unified to create the University of Lorraine which is the second largest university of France (by the number of students). The university has more than 50,000 students, 13,000 of them located in Metz where 6 faculties can be recognized. As our research concerns only the city of Metz, university budget items had to be divided by keys. The city of Metz has about 120,000 inhabitants, in a region less developed than the French average (but over the EU average).

The main findings of our research for Szeged and Metz can be summarized in Figure 3 and Figure 4, respectively.

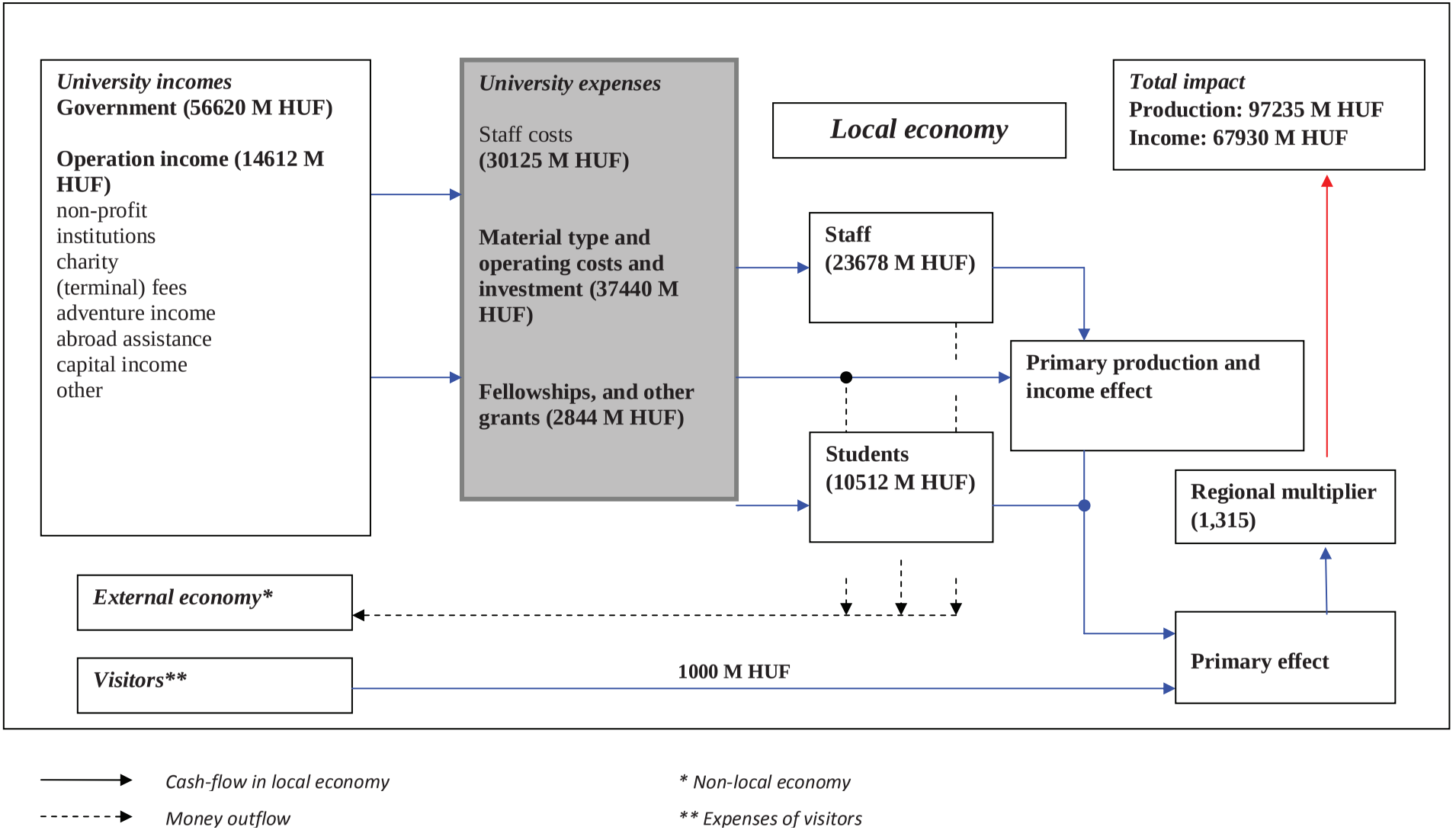


Figure 3: Cash-flow à Szeged

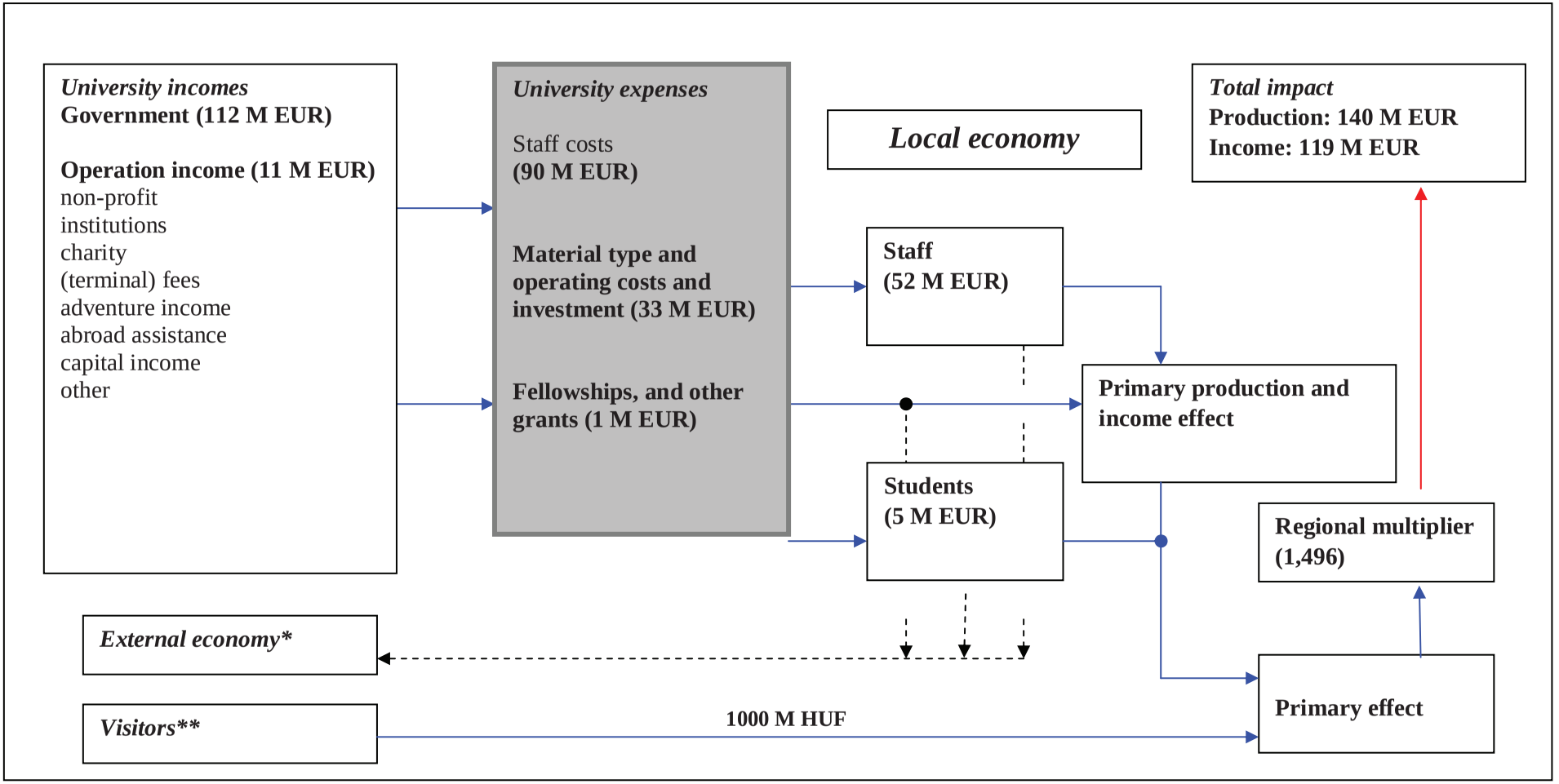


Figure 4: Cash-flow à Metz

Conslusion

The total impact per student is in the range of 15-50 thousand euros in the USA, in the range of 10-20 thousand euros in Western Europe, while between 5 and 10 thousand euros in Eastern Europe by benchmark studies. The result of 10.800 EUR in our target cities can be explained by the fact that the University of Szeged has a clinical center where medication activities requires expenditures in the order of education and – out of clinical – research of the whole university.

In the percentage of the regional GDP, the impact in the USA is generally in the range of 0.1-3.0%, while in Europe only 0.02-0.10%. Our results of 4% in Szeged and 0.02% in Metz are extremities. The first can be explained by the clinical center, while the second would be higher, if we consider the whole University of Lorraine (around 0.1%).

It is important to see that direct and multiplied (induced) income impact of these universities are in the order of the sum of money invested by different levels of governments. Thereby their third mission activities and/or catalytic impacts are crucial in their local/regional added value. It is proven by Varga (2001) that agglomeration matters, the impact of third mission activities is larger in large universities than it could be explained by their relative size.

References

1. Armstrong, H. W. (1993). The local income and employment impact of Lancaster University. *Urban Studies*, 30, pp.1653-1668.
2. Armstrong, H. W., Taylor, J. (2000). *Regional Economics and Policy*. Oxford: Blackwell
3. Árvay, Zs., Menczel, P. (2001), A magyar háztartások megtakarításai 1995 és 2000 között. *Közgazdasági Szemle*, 47, pp. 93-113.
4. Baslé, M., Le Boulch, J-L. (1999) L'impact économique de l'enseignement supérieur et de la recherche publique sur une agglomération de Rennes. *Revue d'Economie Régionale & Urbaine*, 1, pp. 115-134.
5. Beck, R., Elliott, D., Meisel, J., Wagner, M. (1995). Economic impact studies of regional public colleges and universities. *Growth and Change*, pp. 245-260.
6. Benczúr, P. –Kátay, G. 2010, Adóreformok hatása a magyar gazdaságra egy általános egyensúlyi modellben. http://media.coauthors.net/konferencia/conferences/3/benczur_katay.pdf (accessed 24.03.2011)
7. Blackwell, M., Cobb, S., Weinberg, D. (2002). The Economic Impact of Educational Institutions: Issues and Methodology. *Economic Development Quarterly*, 16(1), pp. 88-95.
8. Bleaney, M. F., Binks, M. R., Greenaway, D., Reed, G., Whynes, D. K. (1992). What does a university add to its local economy? *Applied Economics*, 24, pp. 305-311.
9. Bridge, M. (2005). Higher education economic impact studies: accurate measures of economic impact? *Journal of College Teaching and Learning*, 2, pp. 37-47.
10. Brown, K. H., Heaney, M. T. (1997). A Note on Measuring the Economic Impact of Institutions of Higher Education. *Research in Higher Education*, 38(2), pp. 229-240.
11. Brownigg, M. (1973). The economic impact of a new university. *Scottish Journal of Political Economy*, 20, pp. 123-129.
12. Caffrey, J., Isaacs, HH. (1971). *Estimating the impact of a College or University on the Local Economy*. American Council on Education, Washington.
13. Caroll, M. C., Smith, B. W. (2006). Estimating the Economic Impact of Universities: The Case of Bowling Green State University. *The Industrial Geographer*, 3(2) pp. 1-12.
14. Cooke, E. (1970). Analysing university student contribution to the economic base of the community. *Annals of Regional Science*, 4, pp. 146-153.

15. Dusek, T. (2003). A felsőoktatás lokális termelésre és jövedelmekre gyakorolt hatása. In Rechnitzer, J., Hardi T. (eds): *A Széchenyi István Egyetem hatása a régió fejlődésére*. Győr: Széchenyi István Egyetem Gazdaság- és Társadalomtudományi Intézet, pp. 60-71.
16. Dusek, T., Kovács, N. (2009). *A Széchenyi István Egyetem hatása a helyi munkaerőpiacra*. A Virtuális Intézet Közép-Európa Kutatására VIKEK Évkönyve, II. Régiók a Kárpát-medencén innen és túl konferencia tanulmányai, pp. 69-73.
17. Dusek, T. – Lukovics, M. (2011). *Analysis of the economic impact of the Budapest Airport on the local economy*. 58th Annual North American Meetings of the Regional Science Association International (RSAI). Miami, Florida, USA
18. Dusek T. – Lukovics M. (2014). Az ELI és az ELI Science Park gazdasági hatásvizsgálata. *Területi statisztika*, 5, pp. 1-18
19. Felsenstein, D. (1995). Dealing with induced migration in university impact studies. *Research in Higher Education*. 36, pp. 457-472.
20. Florax, R. (1992). *The university: a regional booster?* England: Avebury.
21. Gagnol, L., Héraud, J-A. (2001). Impact économique régional d'un pôle universitaire : application au cas strasbourgeois. *Revue d'Economie Régionale & Urbaine*, 2001 (4), pp. 581-604.
22. Garrido-Iserte, R., Gallo-Rivera, M. T. (2010). The impact of the university upon local economy: three methods to estimate demand-side effects. *Annals of Regional Science*, 44, pp. 39-67.
23. Harsányi, G., Vincze, S. (2012). A magyar felsőoktatás néhány jellemzője nemzetközi tükörben. *Pénzügyi Szemle*, 2012 (2) pp. 226-245.
24. Huggins, R. - Cooke, P. (1997). The economic impact of Cardiff University: innovation, learning and job generation. *GeoJournal*. 41 (4), pp. 325–337.
25. Jabalameli, F., Ahrari, M., Khandan, M. (2010). The Economic Impact of University of Tehran on the Tehran District Economy. *European Journal of Social Sciences*, 13(4) pp. 643-652.
26. Johnson, T. M. (1994). *Estimating the Economic Impact of a College or University on a Nonlocal Economy*. PhD dissertation, Texas: Texas Tech University.
27. Jongbloed, B. (2008). *Indicators for mapping university-regional interactions*. Paper for the ENID-PRIME Indicators Conference in Oslo, 26-28 May 2008.
28. Klophaus, R. (2008). The impact of additional passengers on airport employment: The case of German airports. *Airport Management*, 2, pp. 265-274.
29. Kotosz, B. (2012). Felsőoktatási intézmények regionális multiplikátor hatása. *Jelenkori társadalmi és gazdasági folyamatok*. VII/1-2, 7.
30. Kotosz, B. (2013). Local Economic Impact of Universities. *Analecta Technica Szegedinensia*, 2013(1-2), pp. 22-26.
31. Lengyel I. (2008). „Távolság versus közelség" dilemma az ipari-egyetemi kapcsolatokon alapuló tudasalapú helyi gazdaságfejlesztésben. In: *A gazdasági környezet és a vállalati stratégiák.* A IX. Ipar- es Vállalatgazdasági Konferencia előadásai. Szeged, pp. 551-562.
32. Lengyel, I., Rechnitzer, J. (2004). *Regionális gazdaságtan*. Budapest-Pécs: Dialóg-Campus.
33. Lewis, J. A. (1988). Assessing the effect of the polytechnic, Wolverhampton, on the local community. *Urban Studies*, 25, pp. 25-31.
34. Love, J. H., McNicoll, I. H. (1988). The regional economic impact of overseas students in the UK: A case study of three Scottish universities. *Regional Studies*, 22, pp. 11-18.
35. Lukovics M. – Dusek T. (2014a). Economic Impact Analysis of the ELI R&D Infrastructure and Science Park. *Journal Mittelforum and Next Europe*, 1, pp. 72-85

36. Lukovics, M. – Dusek, T. (2014b). *The Economic Impact of the ELI R&D Infrastructure and Science Park in the Szeged sub-region*. Diverse Regions: Building Resilient Communities and Territories. Regional Studies Association Annual International Conference 2014, Izmir, Turkey
37. Lukovics, M. – Zuti, B. (2013): Successful universities towards the improvement of regional competitiveness: „Fourth Generation" universities. Paper presented at the "*European Regional Science Association (ERSA) 53th Congress „Regional Integration: Europe, the Mediterranean and the World economy*" 53th Congress of the European Regional Science Association, Palermo, Italy.
38. Lukovics M. – Zuti B. (2014). Egyetemek a régiók versenyképességének javításáért: „negyedik generációs" egyetemek? *Tér és Társadalom*, 4, pp. 77-96.
39. Mezei, K. (2005). A Pécsi Tudományegyetem hatása a város gazdaságára. *A magyar városok kulturális gazdasága*. Budapest: MTA Társadalomkutató Központ.
40. Mille, M. (2004). Université, externalités de connaissance et développement local : l'expérience d'une université nouvelle. *Politiques et gestion de l'enseignement supérieur*. 16 (3), pp. 89-113.
41. Ohme, A. M. (2003). *The Economic Impact of a University on Its Community and State Examining Trends Four Years Later*. University of Delaware, mimeo.
42. Pellenbarg, P. H. (2005). *How to Calculate the Impact of University on the Regional Economy*. Paper presented to the Conference on Knowledge and Regional Economic Development, Barcelona, 9-11 June 2005.
43. Pawlowski, K. (2009). The 'fourth generation university' as a creator of the local and regional development. *Higher Education in Europe*, 1, pp. 51-64.
44. Robert, H., Cooke, P. (1997). The economic impact of Cardiff University: innovation, learning and job generation. *GeoJournal*, 41(4) pp. 325-337.
45. Segarra i Blasco, A. (2004). La universitat com a instrument de dinamització socioconómica del territori. *Coneixement i Societat*, 03, pp. 78-101.
46. Siegfried, J. J., Sanderson, A. R., McHenry, P. (2006). *The Economic Impact of Colleges and Universities*. Vanderbuilt University Working Paper No 06-W12.
47. Simha, O. R. (2005). The Economic Impact of Eight Research Universities on the Boston Region. *Tertiary Education and Management*, 11, pp. 269-278.
48. Székely, A. (2013), Regionális multiplikáció a szegedi Árkád példáján, in Rechnitzer, J., Somlyódiné P. E., Kovács, G. (eds): *A hely szelleme – a területi fejlesztések lokális dimenziói*. Széchenyi István Egyetem, Győr. ISBN 978-615-5391-10-1. pp. 565-573.
49. Tavoletti, E. (2007). Assessing the Regional Economic Impact of Higher Education Institutions: An Application to the University of Cardiff. *Transition Studies Review*, 14(3), pp. 507-522.
50. Varga, A. (2001). Universities and Regional Economic Development: Does Agglomeration Matter? In Johannson, B., Karlsson, C. & Stough, R. (eds) *Theories of Endogenous Regional Growth*, Springer, Berlin.
51. Vidor A. (2005). A megtakarítás-ösztönzők hatása: magyarországi tapasztalatok. *PM Kutatási Füzetek*, http://www2.pm.gov.hu/ retrieved October 13, 2010.
52. Wissema, J. G. (2009). *Towards the third generation university. Managing the university in transition.* Edward Elgar, Cheltenham.
53. Zuti, B. – Lukovics, M. (2014). „Fourth Generation" Universities and Regional Development. In Hamm, R. – Kopper, J. (eds.): *Higher Education Institutions and Regional Development*. Mönchengladbach, pp. 14-31
54. Zuti B. – Lukovics M. (2015): How to Measure the Local Economic Impact of the Universities' Third Mission Activities? In Nijkamp, P. – Kourtit, K. - Buček, M. – Hudec, O. (eds): 5th Central European Conference in Regional Science. Technical University of Košice, Košice, pp. 1209 – 1215

THE USE OF QUALITY PROGRAMS IN ENTREPRENEURSHIP

Gadaf Rexhepi PhD,

Academic Abdylmenaf Bexheti,

Veland Ramadani PhD,

Sadudin Ibraimi, PhD

Abstract

One of most important aspect enterprises need to pay attention when it comes to being competitive is the overall quality in enterprise. This requires from entrepreneur's to define its quality programs, and find out which are they're most important element relating quality in order to improve it. Improving quality is related with the use of quality programs. Competing on quality programs is very hard especially because we are including total quality management-quality in all enterprise aspects in the enterprise. In this paper we will try to explain the benefits of quality programs and explain its role on entrepreneurship. Investing in quality is payable process and that for enterprises it is very important to invest in quality. In this paper we will give a program that will help enterprises to increase their quality in all areas of enterprises which will be related to total quality management in enterprises. Part of the research was a research conducted in approximately one hundred enterprises in Macedonia that show significant relationship of implementation of quality programs and enterprise performance. This result show to be of very high importance for entrepreneurs in their decision on using the quality programs in achieving competitive advantage.

Keywords: *quality, quality programs, total quality management, performance.*

1. Defining what is quality

Most of American companies rank the quality of products and services in the first and second place, as a condition for the success of their enterprises *(Schermenrhorn, 1993, p.690).* Even though it seems an easy task but defining quality is a difficult think to do. In the economic literature we can find many definitions, regarding the importance of quality. Defining quality will help entreprenurs to know where they are heading and controll themeselv if they are doing it properly. Phill Crosby notes that enterprises need to define quality, becouse they won't be able to know what they are doing for its improvement and how to manage it. In defining quality entrepreneurs need to know and understand the requirements of customers, which should be part of the production/service delivered itself. Quality defins standarts of how entreprises should operate, it helps employees understad what they should do and supervisiors to know if their employess are doing things as defined. Quality is the main and best strategic aproach that an enterprise can have. W. E. Deming believes that quality is multidimensional characteristic, which cannot be defined if we analyze only one characteristic. Quality must be defined in line with meeting the customers' requirements. While Bobek Shuklev defines quality as the summary of product characteristics or service, which enable meeting the needs *(Shuklev, 2004, p.28)*. Quality is defined as the degree of excellence, and in most cases is defined as the ability to meet 100% of customer requirements that occur over time *(Daff, 2001, p.83).* According to ISO 9000:2000, quality is defined as "the degree that certain essential features meet the requirements"*(Besterfield et al, 2003, p.8).* Scale means that the quality may be poor, good or excellent. Substantive aspect is defined as existence on anything (e.g existence in manufacturing), especially as an integral feature permanently. Characteristics can be qualitative or quantitative. The application is the need or expectation, which is generally noted by the enterprise, its customers or other interested parties. This research paper will try to give an answer to the hipothesis is there a conection to quality progrmaes and enterprise performance, and by that is there a conection with quality programes and managament.

During defining quality we should keep in mind that quality is defined differently from enteprise side and customers side. This two parties have a differente perspective on what is quality. For entreprenurs quality is related with everything in the enterprise starting from selecting the raw material and till the moment that the consumers by or use our product or service. Entrepeneurs need to implement quality programs for every sector, departmant everybody need to be part of the quality improuvemnt in the overal enterprise. On the other side consumers usually deal with the quality of our final product or service offered and his perception of quality will depend mainly on that. If we analyse the definitions for quality, defining quality we need to consider on two dimensions *realativity and subjectivity. Subjectivity in quality* means, product or service that may be qualitative for you, for someone else or for a hundred others may be perceived as low quality product or service. Relativity in quality means, a product or service that is perceived by you as very qualitative today, after a year or more years may not be. For example, if we asked somebody (or you) in the year 2000 what is a qualitative mobile phone most probably it would be a phone with fm player, which is small etc. But what if we ask the same person what is quality mobile phone toaday (2015), he will say a very different characteristics than in the year 2000 and that product which he consider to be a qualitative product today he will percept as non qualitative product. This means that if quality has two very important dimension *relative and subjective*, its definition must contain this dimensions. Precisely these are the reasons for the existence of different definitions of quality. Given the previous definitions, as well as many other definitions found in literature, quality can been seen as:

- *Conformance to specification* - here it is noted how much much the product or service met specific tolerance set by its designers as a standard for quality. For example: sending the ordered product to your home for 60 minutes, preferably for a delay of 10 minutes. Here it

comes to measuring the harmonization to specifications, although it is not directly related to the idea of what quality is for customer.

- *Fitness for use* – here the focus is on how well the final output provides its desired function for what is was designed. Lets analyze fitness for use for Mercedes Benz and Cherokee's. If it comes to transport in urban areas the Mercedes has beter fitnes for use, but if it comes to transport through the mountains, then use Cherokees, which have greater fitness for use.

- *Value for price paid* - is the definition of which customers use to express the usefulness of the product or service. In fact, it is the relationship between the service received and the price paid for the service performed. For example, if a coustumer had recieve a service in another country with a lower price then someone else in domestic, he might feel that he had gained a greater value compared to the price the other people paid.

- *Support service* - here the definition of quality is in relation to the support services, which can be obtained after purchasing the product or service. It is the way of evaluation of the product or service. Quality is not just about a product or a service, it has to do with people, work process and environment. Example of this is the quality of a university, which is not only about the quality of its staff, but also the published scientific work.

- *Psychological criteria* - is a subjective definition of quality, which focuses on the value of the set by an individual consumer on what is qualitative product or service. It is a probably the most powerful definition on quality. Through several examples, we will try to clarify this requirement. Sometimet a new product from a world known company which is brand in the market (Mercedes), can convince you that it is high quality product and you might decide to buy it, although that series of product can be full with defects. While you may be able to get the same product, with a different brand with the highest quality and much lower price (Skoda).

Considering the relative and subjective definition of quality and all the above, it can be concluded that *"quality is defined as multi-dimensional category, which meets the demands of customers in certain time and space"*. John. J. Hudiburg distinguishes quality with small „c" and quality with big „C". Quality with small „c" is defined as enterprise achievement to provide the product or service according to the previously set standards. Quality with big „C" is defined as the provision of product or service, which includes everything customers ask when it comes to buying the product(Schermerhorn, 1993, p.692). Some research showed that most SME developed training programs specifically focused on quality improvement, suggesting that, beyond fostering quality improvement awareness, SME supply their employees with tools necessary to develop their skills and (or acquire new insights needed to improve their performance (Mendes, 2012). This paper is an efort to emphasise the importance of quality programs that entrepreneurs need to consider in all level of enteprises.

2. Quality of products and services

Entrepreneurs need to pay lot of atention that there are differences in definiing quality of products and services. Consumer react diferently toward quality of product and service, they use different elements to value what is a qualitative product and what is qualitative service. Products are tangible, products can be measured (notebooks, mobile phones etc.), they can be seen, they can be tasted, they can be ofered with the same quality everywhere from everybody. According to David A. Garvin the difference between products and services lies in the existence of the eight dimensions of quality, which are different from when enterprises ofer product or service *(Garvin, 1987, p.101-109):*

- *Performance* – its focus is on primary operating characteristics of the product and service. It is related towards meeting the basic (main) characteristics, for which the product or service is originally designed.
- *Features* - It is about additional features, which make our product or service to distinguish from others *(Shuklev, 2003, p.26-27).* This dimension is often used by enterprises to gain competitive advantage of their product in order to attract the attention of consumers. Some of the additional features, after a period of time customers will percept them as basic features of the product or services. Therefore, enterprises should pay attention to additional features after a certain period to replace or add new.
- *Reliability* - notes the likelihood of failure of product for a given period of time. Common measures of reliability are the average time of the first failure, the average time between two failures and the failure rate per unit time. We are talking about the possibility of product operating without fault, of course for the period determined by the enterprise. This characteristics implies mainly at products.
- *Conformance* - is the degree at which the final output meets previously set standards for design and operating characteristics. Each product and service it is necessary to fill 100% of these standards which primarily arise from the requirements of the customers.
- *Durability* - notes the number of uses of the product before it comes out of the usage. With the development of technology, many companies try to point out the exact number of use of a product before it is amortized. This feature is closely related to reliability. This characteristics implies only at products.
- *Serviceability* - notes the speed, courtesy, professionalism and easy way to repair. Common reasons for buying a product are the proximity of the service. Most of the companies don't have enough servicing center and also the speed of the product repair is very low. This characteristics implies only at products.
- *Aesthetics* - is the subjective dimension, which has to do with the look, sound, taste, or smell of the product. As for other dimensions consumers may have similar thoughts, but for aesthetics, because of subjective judgment such a thing is impossible. This characteristics implies only at products.
- *Perceived quality* - exposes personal and subjective assessment of the product and service quality. This dimension relates to the reputation enjoyed by the enterprise. The introduction of a new product on the market from a reputable enterprise, it becomes more easily than by enterprises for the first time appearing on the market.

When we speak about quality programs we include many formal quality management initiatives such as Total Quality Management (TQM), quality certification, Quality Awards and all TQM techniques whose goal is to improuve the overal quality of an enteprise (Lobo & Jones, 2003) Research showed that e**nterprises that deal with product or service that use quality programes** exhibited better teamwork and decision making than those not using quality programs (Beheshti & Lollar, 2003). In the table 1 below we can se the differencess in benefits betwen enterprises that use quality programes and enterprises that dont use quality programes related with enterprises deling with products.

Table 1. *The impact of quality management in manufacturing*

Mean rating (1–5)

Performance quality program	Using Quality program	Not using
Improved product quality	4.50	4.20
Increased efficiency	4.75	4.20
Improved customer service	4.50	4.80
Resulted in cost reduction	4.25	4.00
Improved decision making	4.50	3.80
Resulted in less defects	4.00	3.60
Encouraged teamwork	4.50	3.00
Increased productivity	3.75	3.28
Composite index	4.34	3.86

Source: Adopted according to Beheshti, Hooshang M.; Lollar, James G. 2003. Total Quality Management & Business Excellence. Vol. 14 Issue 8

Table 2. *Importance of quality management in manufacturing*

Mean rating (1–5)

Factor quality program	Using Quality program	Not using
Profitability	4.75	4.57
Increased market share	4.75	4.57
Employee training and development	5.00	4.50
Premium price	3.25	2.57
Gaining competitive advantage	3.75	3.71
Value-added	3.75	3.71
Corporate strategy	4.00	3.00
Composite index	4.18	3.80

Source: Adopted according to Beheshti, Hooshang M.; Lollar, James G. 2003. Total Quality Management & Business Excellence. Vol. 14 Issue 8

As we can see from the table one, enterprises that use quality propgrams in order to improuve its overal quality in almost all the cases showe better performance than when enterprise don use quality program. This difference is obviously emphasisez at *improuvement of the decision making proces, increased efeciency and team work encaregement.*

3. Quality of service

When it comes to defining the quality it is necessary to highlighted problems arising in the meantime. Much of the problem has to do with the quality of services. While enterprises that offer products which can be seen, measured, such a thing does not happen here. If a given service is used by a costumer its comment will depend mainly on subjective perception of service. Parasuraman, Zaithaml and Berry *(1986,1990)* have identified ten dimensions, which contribute to increasing the quality of services that their enterprise offer to their customers *(Davis et al, 1999, p.136): tangibles, reliability*, responsiveness', *competence, courtesy, credibility, accessibility*, c*ommunication and understanding the customer*. Devoting attention to these dimensions and especially the commitment of the enterprise to improve each of them, can contribute to the enterprise to make a huge step in improving the quality of services. Continuous improvement of each dimension is a prerequisite for

maintaining and improving its quality. Same as per quality of products in the table 3 and 4 we can se the differencess in benefits betwen enterprises that use quality programes and enterprises that dont use quality programes related with delivering service.

Table 3. *The impact of quality management in service*

Mean rating (1–5)

Performance program	Using Quality program	Not using quality
Improved product quality	4.00	4.57
Increased efficiency	4.88	4.57
Improved customer service	4.63	4.48
Resulted in cost reduction	4.00	2.90
Improved decision making	3.63	3.57
Resulted in less defects	3.05	2.25
Encouraged teamwork	3.35	2.88
Increased productivity	3.72	3.56
Composite index	3.91	3.60

Source: Adopted according to Beheshti, Hooshang M.; Lollar, James G. 2003. Total Quality Management & Business Excellence. Vol. 14 Issue 8

Table 4. *Importance of quality management in service*

Mean rating (1–5)

Factor program	Using Quality program	Not using quality
Quality is critical to profitability	4.52	3.89
Quality increased market share	4.45	4.22
Employee training and development	4.65	4.00
Charge premium price	3.86	3.56
Quality is a competitive advantage	3.69	3.11
Value-added	3.89	3.00
Corporate strategy	3.50	3.30
Composite index	4.08	3.58

Source: Adopted according to Beheshti, Hooshang M.; Lollar, James G. 2003. Total Quality Management & Business Excellence. Vol. 14 Issue 8

As we can see from the table 3 and 4 enterprises using quality programes in almost all the cases show better performance than when enterprise dont use quality program when enterprises deal with service. This difference is obviously emphasise in reduce enterprise cost, less defects, and encouradge teamwork.

4. Quality programs and the price of quality

Entrepreneurs in the begining usually dont pay atention to quality, mainly becouse of aditional cost that usually quality programs will bring. But as Philip Crosby noted quality is free non quality is expensive. As mention before with quality program we incorporate any enterprise effort in increasing the overall quality of an enterprise. Quality of products and services is a necessity. In order for enterprises to offer good quality product or service they ahave to consider the

overal quality of the enetrprise. This is best achieved if entrepreneurs use quality programs in their enterpisess. Without quality programs enterprises might have very high design, production, sales, and maintenance costs.The use of quality programs usually it is percepted as something that need to be done by big companies. But quality programs aren't only for big companies they can be used successfully by any entrepreneur starting from the first day when an entrepreneur is starting to think on establishing an enterprise. According to the experience there are five main reason on why to use quality programs in increasing enterprise performance (Shea and Gobeli, 1995):

1. Promotion of growth,
2. Consistment with management style,
3. Changing consumer expectation,
4. Making work more enjoyable,
5. Improving poor enterprise performance

Entreprenueurs are business oriented also and it is very imprtanat for them to know the price of quality or the price for improving the quality of their services and products. They need to know the cost benefit analysis of implementing quality programes in order to see the benefits of implementing the quality programs. The first issue in this process is can quality be measured? The cost of quality don't distinguish from other costs, it can be measured, programmed and analyzed. According to Joseph Juran, quality costs are divided into three categories*(Juran in Davis et al, 1999, p.144)*:

- Prevention costs
- Appraisal costs
- Failure costs

Prevention costs are the costs associated with the development of preventive programs for identifying the problems in the *first time and in the first place* when they appear. This actually represents the enteprise effort to stop the production of poor quality products. This way of thinking should be an integral part of any unit or any part of the enterprise starting from the purchase of raw materials without defects, marketing, design, production, administration, etc.. But above all, it must be incorporated into the management system of the organization. According to Armend Feigenbaum this costs participate with only 5 to 10% in the total costs of quality in the organization. It is assumed that the costs of prevention are important category of expenditure because, not only they affect the enterprise o further reduce costs arising from regulation of defects, but also affects the establishment of the enterprise reputation. Enterprises that can take preventive steps in problem solving must provide its employees with various training and the use of Total Quality Management philosophy. Most common types of expenses, which appear in this category, are*(Waller, 2003, p.89):*

1. Training for quality,
2. Development of the system,
3. The study of pilot projects,
4. Reliability analysis,
5. Department of Quality Assurance,
6. Investment in equipment for the detection of errors,
7. Quality accounting system.

Aprassial costs - are expenses that have to do with evaluating the quality of products and detecting errors (*Davis et al, 1999, p.145)*. These costs participate with 20 to 25% in the total costs of quality programs. These costs relate to the whole process until the end of the manufacturing process and do not allow the product to pass to the next stage for processing unless specified standards about the quality are met before. In the first phase we are dealing with supply inspection costs of raw materials, along with the costs of product testing and comparison of finished products previously specified standards in relation to quality. In these group of costs we include costs of employee involvement in quality measurement. Evaluation costs can be divided into two categories as follows *(Waller, 2003, p.91):*

I. Costs involved in manufacturing:

- Sample to confirm the quality,
- Inspection of products in the process,
- Inspection of finished products,
- Laboratory tests for confirmation,
- Equipment on-line detection of quality,
- Tracing of customers for quality,
- Evaluate suppliers.

II. Costs involved in marketing:

- Tracking customers and their opinions on the quality of finished products,
- Tracking the transport channels, including conveyor systems,
- Accuracy in billing documents
- Presentation of finished products.

Failure costs - deals with uncontrolled products and poor quality production. Failure costs can be divided into two groups as follows: *internal failure costs and external failure costs.*

1. **Internal failure costs** - are costs, which are related with the detection of poor quality before sending the final output to consumers. It is about costs that are related with the repair of products manufactured with defects. But it is not always possible for the product to be repaired, sometimes the product is so badly damaged that it is impossible to be repaired and those products must be removed from use. These type of costs also are called junk, which include all production costs like (raw materials, labor, machines, etc.). Other costs are costs that are incorporated in expenses arising from the machines and processes.
2. **External failure costs** – are related with quality which appear after the product is in the hand of the consumer. If the product after it is delivered will not function properly, it will cause the loss of trust that consumers have towards our products and sales will decline. Imagine, if only hear that Boeing airplanes had a defect, and you have to travel by plane to China, would you decided to use the their services ?

Table 1: Quality costs

Category	Feigenbaum	Juran and Gryna
Prevention costs	5% - 10%	0.5% -5%
Evaluation costs	20% - 25%	10% -50%
Failure costs	65% -70%	25% -40% Internal
		20% - 40% - external
Total quality costs	100%	100%

It is clear that for companies would be best to invest in prevention costs, because as soon as the error is detected, we will have smaller adjustment costs. The later the enterprise discovers the defect, the higher will be the cost of corrections.

5. Enteprise benefits from using quality programes

According to a research result the implementation of quality programs such as business improvement, TQM, and QA programs are more likely amongst high growth SMEs than they are amongst moderate and low growth SMEs. (Lobo & Jones, 2003) Research pointed out that implementation of quality programes from enterprises in majority of cases its benefit exided the

cost of their implementation (Lobo & Jones, 2003). Implementation of quality programs in almost all cases showed a positive result and they were related with the enterprise survival and growth (Kalia & Ilir, 2012). Implementing quality programs usually shove improvement in costumers satisfaction and employee satisfaction, higher improvement in product and service quality, increased market share, improved efficiency and productivity, greater customer service, and better employee relations ((Prabhjot &Kumar, 2014; Beheshti & Lollar, 2003)).

As presented above there are three main costs related with overal quality in enterprise prevention cost, aprisial cost and failure cost. This mean that this costs are divided as costs related with achieving quality and cost that are made as a result of the lack of quality. The first two types of costs (prevention and appraisal costs) entrepreneurs shouldnt perceive as real costs. This cost will prevent new costs and will increase the quality of the product or services which further will influence the increase of sales and enterprise profit. This becouse after some period it is expected that this cost wil fal. The third group of cost cost of failure entrepreneurs need to see as a very high risk cost which will influence the overal performance of the enterprise. The consequences of the lack of quality which appear as a result of internal and external failure are as follow in table 5 *(Waller, 2003, p.89).*

Table 5 External and Internal failure costs

External failure costs are:	**Internal failure costs are:**
Time lost to confront problems;	Waste and defects worthless products;
Costs for replacement of defective product;	Time required to repair the defective product;
Costs for improving manufacturing defect;	Material costs for the removal of defects;
Transport from / to the plant;	Dismantling of production;
Loss of profits	Repackaging costs;
Dissolution of the enterprise image;	Demotivation of the employees
Loss of prospective customers.	

Source: Adopted acording to *Waller, 2003, p.89)*

If enteprise do not implement quality programs to improve the overall quality in enterprise, then there is real possibility of increase on its internal and external costs. Thus, companies that do not implement the quality improvement program, allow increas in their spending with time.

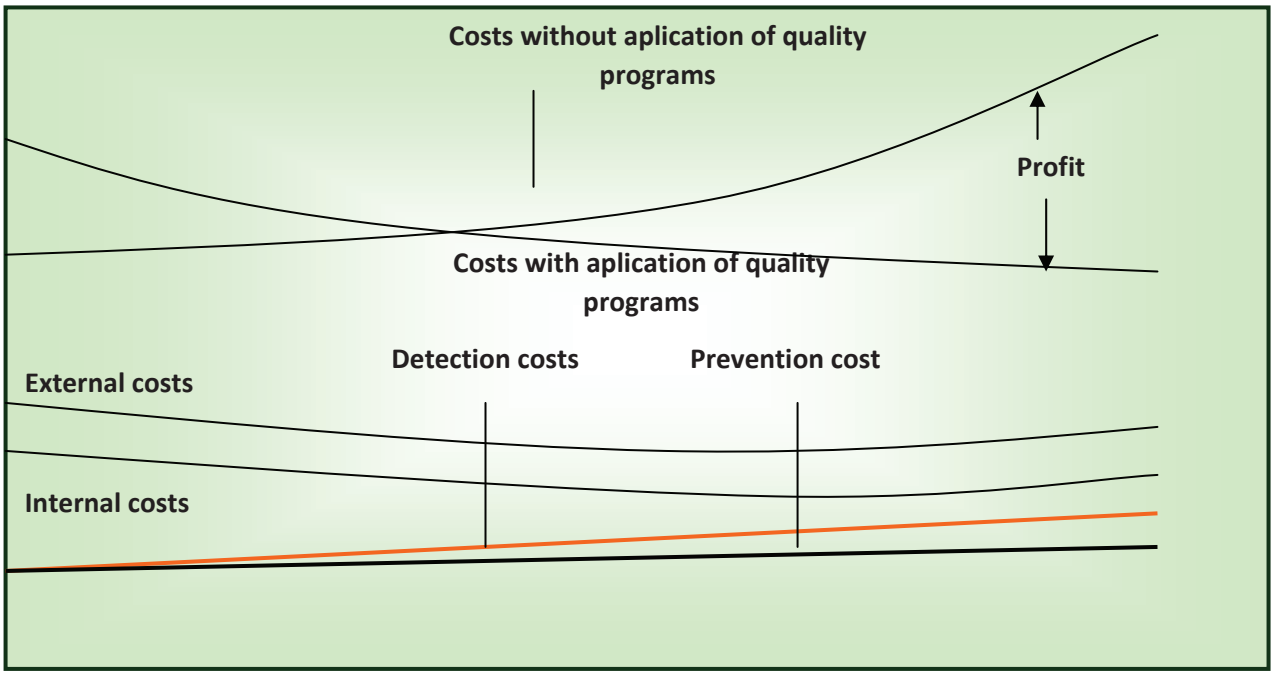


Figure 1. Cost of reduction program

Companies that use programs to improve quality, enable the reduction of the internal and external costs (such a thing can be seen in figure 1). By quality programe we mean implementation of quality departmant and implementation Also, it can be concluded that the costs of prevention and detection over time indicate very small increase, while the internal and external costs reduce, but that reduction will occur in large quantities. It seems clear that the net result will be much greater if the companies use the program to increase the quality. In order to understand the importance of external costs we will mention the example of the Ford Company*(Muller, 2001, p.48-55)*, where one of their sports car (SUVs) has inverted which caused the deaths of several people. After the investigation it was concluded that the problem came from Bridgeston's tires, and this was the reason that the company Ford had to replace 19.5 million tires, which cost her about 2.1 billion dollars. But this was not the main problem, in the first five months of 2001 the sales decreased for 21%. Quality is of utmost importance; therefore in many developing countries they created various programs to stimulate quality improvement programs. In the Republic of Macedonia in the process is the preparation of national program for quality, which aims at providing a systematic support to improve the products, services and processes to achieve quality in European and international level. For this purpose, it is also prepared an action plan, which regulates issues of quality infrastructure, the implementation of the European quality standards, rewards for quality, training, and education. Starting from the position of Macedonian companies and due to the inability to implement the strategy of economies of scale, it is best to use the strategy of differentiation, which is related mainly with quality of the product and service *(Drakulevski, 2002, p.106).*

This paper acknowledges the EFQM (2010) proposition that there is no one single solution to achieving business excellence, by surveying the approach and deployment towards the eight concepts of excellence as the basis for effective SME management practice. (Jones, 2013) First of all, it should be enhanced that results suggest clear concerns from most SME about raising employees‟ levels of consciousness/awareness about the importance of quality improvement issues on firms‟ competitiveness, fostering every collaborator‟s involvement in programs oriented toward quality improvement, such observation is extremely positive and suggests that top management develops initiatives to guarantee that all employees are conscious that they belong to an internal dyad customer-supplier and that their full involvement is crucial for quality continuous improvement. (Mendes, 2012)

Having a quality program from entrepreneurs in their enteprises isnt the ending goal, its implementation is very important and from the implementation it depend the sucess of the quality program. Thus as main reason for not working so well the implementation of six sigma is implementation (Kumar et. Al, 2011). Even though TQM programs were well recognized by Chinese small firms, TQM benefits have not been explored fully (Choong, 2004). In other words, since it is hard for small firms to employ all TQM programs together as a total system, an ideal approach for Chinese small manufacturers is to implement the feasible programs sequentially from the easiest (or cheapest) one, simply for the benefits of that particular program. (Choong, 2004).

This study reinforces the conclusion that TQM cannot be successfully introduced or practised, unless staff at all levels are informed and committed. Both the more successful companies, Companies A and B, ensured that every employee understood enterprise policy, vision, standards and procedures, and that these coincided with medium and long-term plans (Nizam & James, 2005).

Research result

As part of this paper there have been a research conducted in 57 enterprises in Republic of Macedonia mainly (87%) involved in production. The result showed that there is significant relationship between implementation of quality programs and the enterprise success. Thus 84% of enterprises implementing quality programs had an increase in the enterprise performance after three to five years comparing to only 20% of the enterprises that didn't have implemented quality programs. Part of this research were also cost of the companies, the result showed that just after one year of implementation they had about 10% reduce in the cost 82 % of the enterprises, 15 % in the second year in the 75 % of the enterprises and about 25% in about 80% of the enterprises. This information proved that companies should continue to invest in quality and make quality part of their management of the enterprise. Almost all of the enterprises (97%) of them that implemented quality programs said that they will continue in implementation of quality program and make it as part of everyday management decision and 97 % said that they will continue to invest in quality programs.

Conclusion

One of the points of this paper is to show the role of quality in companies' performance and by that the role that quality should have in management of the companies. This paper tries to prove that companies should pay much more attention to quality and try to implement it in every stage of the enterprise, and make it as a part of the management decision. The result showed that implementation of the quality programs in the companies especially in the production enterprises where majority of the research have been conducted improved significantly the enterprise performance. Also implementation of the quality programs resulted in lowering the enterprise costs and that these reduce of the costs comes mainly after three years.

References

1. Schermerhorn, R John Jr. 1993. *Management for Productivity*, fourth edition, McGraw Hill.
2. Shuklev, Bobek. 2004. *Management*, fourth edition, Economic Faculty-Skopje.
3. Richard L. Daff, Dorothy Marcic. 2001. *Understanding Management*, third edition, Harcourt College Publisher, San Diego.
4. Besterfield H. Dale, Besterfield-Michina Carol, Besterfield H. Glen, Besterfield-Mary. 2003. *Total Quality Management*, Pearson Prentice Hall, Third Edition.

5. Schermerhorn, R John Jr. 1993. *Management for Productivity*, fourth edition.

6. Garvin David. 1987. *Competing on the Eight Dimensions off Quality*, Harvard Business Review.

7. Davis, Mark; Nicholas, J Aquliano; Richard, B Chase. 1999. *Fundamentals of Operations Management*, Third Edition, Irwin McGraw -Hill, New York.

8. Waller, L Derek. 2003. *Operation Management a supply chain approach*, 2nd edition, Thomson, New York.

9. Muller, Joan Ford. What it's worse than you think. Quality, morale, and market share.

10. Can Jacques. 2001. Can get this company out of reverse, *Business Week*, 25 June, p. 48-55.

11. Drakulevski Lubomir.2002. Kvalitetot-Strategija za konkurentska prednost, Zbornik na Ekonomski Fakultet Skopje.

12. Maria Xydias-Lobo , Janice T Jones (2003). " Quality Initiatives and Business Growth in Australian Manufacturing, Smes: An Exploratory Investigation. Research Paper Series: 03-3

13. Rhys Rowland-Jones. 2013. A perspective on United Arab Emirates small and medium-sized enterprises management utilising the European Foundation for Quality Management concepts of excellence, Total Quality Management, 2013 Vol. 24, No. 2, 210–224,

14. John Shea and David Gobeli, TQM experience from ten small businesses, Business Horizon, Jan Feb 1995.

15. Luis Mendes, Employees' involvement and quality improvement in manufacturing small and medium enterprise (SME): A comparative analysis, African Journal of Business Management Vol. 6(23), pp. 6980-6996, 13 June, 2012

16. Beheshti, Hooshang M.; Lollar, James G. 2003. Total Quality Management & Business Excellence. Vol. 14 Issue 8 Server Kumar, Maneesh; Antony, Jiju; Tiwari, M. K. International Journal of Production Research. Sep2011, Vol. 49 Issue 18, p5449-5467. 19p. 3 Diagrams, 3 Charts.

17. Kalia, Mimoza; Elmazi, Ilir. International Journal of Management Cases. 2012, Vol. 14 Issue 2, p42-50. 9p

18. Kaur, Prabhjot; Sharma, Sanjeev Kumar. IUP Journal of Operations Management. Nov2014, Vol. 13 Issue 4, p17-30. 14p

19. Lee, Choong Y. Journal of Small Business Management. Jan2004, Vol. 42 Issue 1, p102-115. 14p. 3

20. Rahman, Mohd Nizam Ab; Tannock, James D. T. Total Quality Management & Business Excellence. Jun2005, Vol. 16 Issue 4, p491-503. 13p. 1 Diagram

ASSESSING ENTREPRENEURIAL INTENTIONS, MOTIVATIONS AND BARRIERS AMONGST WBC STUDENTS (THROUGH DEVELOPING A NETWORK OF CO-CREATIVE CENTERS - IDEA LABS)

Petar Vrgović, PhD[187],

Danijela Ćirić, MSc[188],

Vladimir Todorović, MSc[189]

Abstract

In every society, entrepreneurship, particularly youth entrepreneurship is a sign of progress and development as it has an impact on social, cultural and economic development.

Young entrepreneurs may be particularly sensitive to new economic opportunities and trends, as entrepreneurship provides young people with a sense of usefulness and belonging, and it also helps young people to develop new skills and gain experience that may be applied in various different real life situations. One of the biggest challenges that most of the countries face today is youth unemployment, with total unemployment rate rising at an alarming pace: young people represent 20% of the World population and 50% of the total global unemployed labor force.

Although there is globally a big emphasis on entrepreneurial learning in last decade, activating students to think and act in entrepreneurial terms during their studies remains a big challenge, especially in developing countries. Since the curriculum is still evolving slowly, students are often faced with teaching methods that keep them as passive recipients of formal knowledge. Besides classes, students rarely experience other activities that may stimulate them to think in entrepreneurial terms. This makes them unprepared for commercial career and entrepreneurial endeavors.

In Western Balkan Countries (WBC), entrepreneurial education was found to be more in focus of NGOs than universities. At the same time, projects targeting entrepreneurship at universities in this region mostly focus on academic entrepreneurship and commercialization of research or high-tech results, completely missing students.

Aiming to explore students' potentials for the entrepreneurial and innovative activities, a survey was conducted in three Western Balkan Countries. A questionnaire about students' intentions and preferences was designed, and a sample of over 1,700 students was reached. The results show significant entrepreneurial potential that still lays untapped, which advocates for some sort of stimulation from a relevant context such as university. A big number of students from the sample have at least a few creative ideas that they believe could become business ideas. Unfortunately, almost every other student that has some creative ideas is feeling pessimistic about those ideas, fearing that they would not survive in the business world.

It appears to be very important to identify concerns and students' attitudes regarding entrepreneurship, so as to intensify their awareness of feasibility and desirability of en entrepreneurial career. In order to tackle this challenge, creating a network of co-creative centers (iDEA labs) in WBC countries is proposed in this paper. This network aims to generate greater orientation of young people towards self-employment and entrepreneurship by creating a system of continuous support, training and mentoring for (potential) young entrepreneurs. It will give a safe learning context to students, where they are free to test their entrepreneurial ideas and learn relevant skills in a real-but-protected environment which will stimulate them to think and act without fear of failure.

Keywords: *Entrepreneurship; University, co-creation, innovation, creativity*

[187] Faculty of Technical sciences, University of Novi Sad; vrgovic@uns.ac.rs
[188] Faculty of Technical sciences, University of Novi Sad; Danijela.ciric.86@gmail.com
[189] Faculty of Technical sciences, University of Novi Sad; todorovic.ftn@gmail.com

1. Introduction

Entrepreneurial learning and trainings that lead to business empowerment are gaining momentum in the last few decades around the world, with different success across the globe. This paper investigates some aspects of this phenomenon in the context of Western Balkans region, trying to identify basis for entrepreneurial activation among young people. This region has some common problems in this area, most of which could be described with the following facts (OECD, 2012; Todorovic et al. 2012; Radevic and Tinaj, 2011; Karanassio, 2006):

- Small percentage of students is ready to start their own business after graduation;
- Majority of students report that during their studies they are only acquiring knowledge and skills useful to the public sector or to very big enterprises;
- Even when there is some form of entrepreneurial education, it is still academically driven;
- There are few students apart from those from economy and business studies that are engaged in entrepreneurial learning;
- Networking skills across the region and national boundaries are very limited;
- Knowledge about financial instruments of the equity and participation type is scarce;
- Companies are often isolated from higher education, thus not transferring their practical knowledge to active students.

And although it is found that individuals rely on their adaptive resources and entrepreneurial self-efficacy as they form entrepreneurial intentions (Tolentino et al., 2014), it is still necessary to offer organized support to young people in order to influence their career choices. There are different approaches on how to spark entrepreneurial learning in contexts that are lagging behind this type of learning, varying from immersing students in existing organizations to constructing hybrid spaces where business skills could be learned in parallel to creative idea development (Tekic et al., 2013.; McPhee, 2012). Indeed, pre-incubators and incubators can be observed as enterprise teaching laboratories in which all main aspects of enterprise education can be undertaken (Kirby, 2004). Students are found to highly benefit active means of learning about entrepreneurial activities, especially when they are let to run their own business in semi-controlled environment (Vincett and Farlow, 2008).

In order to construct effective context for entrepreneurial learning, this paper aims to identify students' potentials for the entrepreneurial and innovative activities. This will be achieved by summarizing answers given to a custom-made survey by student sample from the Western Balkans region. In the next step, this paper will try to propose a model that describes teaching-and-working space within a university, that could help students improve their knowledge and skills relative to business thinking and enterprise.

2. Research method and samples

Aiming to explore students' potentials for the entrepreneurial and innovative activities, a number of universities in the Western Balkans region were contacted, as well as other higher education institutions, which were observed as a dynamic context relevant for this project. Since most of the institutions did not have any data that could serve this purpose, it was necessary to assess students' potentials in a new research activity. Therefore, students were intended to be directly approached, so that a baseline for relevant activities could be set. Since the research question aims to offer solution for the entire region, the research activity has to cover as much of the population as possible, advocating for a diversified sample from multiple contexts.

In order to explore structure and dynamic of students' entrepreneurial thinking and acting, as well as their ideation and innovation potentials, a questionnaire was designed, comprised of a number of thematic closed-ended questions (presented in Appendix 1).

2.1 Data collection and sample properties

The questionnaire was published in forms of a printed survey, and distributed to three universities in Serbia, two in Bosnia & Herzegovina and one in Montenegro, in June and July of 2014.

The total sample of students has reached number of 1794. Students in the sample were mostly 18-25 years old. There were 52.7% of students identifying themselves as female and 47.3% as male. Current year of study is dominantly 1st (967 students) or a senior year (401 third year and 390 fourth year). The research wanted to cover especially students who are in their last year of study, but different studies vary between being three and four years long, hence two group of students from study years three and four.

3. Data analysis

The students were firstly asked about their preferences for their near future, after they finish their current studies. This question is important since it can describe current students' state-of-mind, which may stimulate or hinder them from developing their own business. As shown in table 1, students give the highest mark to employment in public or government sector, which is closely followed by continuing their education and starting their own business; working in a privately-owned company is the least appealing. Although the "own business" option is third in the ranking, the difference from the first option is quite small, only 0.11 points on a 1-7 scale.

Table 1: Students' intentions about career future

Descriptive Statistics: After you finish your current studies, how much are the following options appealing to you? (1-7 scale)	
	Mean
To be employed in a government-owned organization.	5.01
To continue with education.	4.93
To start my own business.	4.90
To be employed in a privately-owned company.	4.04

To shed more light on students' entrepreneurial intentions, answers to "start my own business" alternative were more closely observed on their own. It can be seen that a big number of students find starting their own business as much appealing as possible (31.3% students marked this option with the highest mark 7, figure 1). So, although the "employment in a government-owned organization" is marked as the most appealing option, there is still a big number of students who would be very happy working on their own. This gives hope to projects that nurture students' entrepreneurship education.

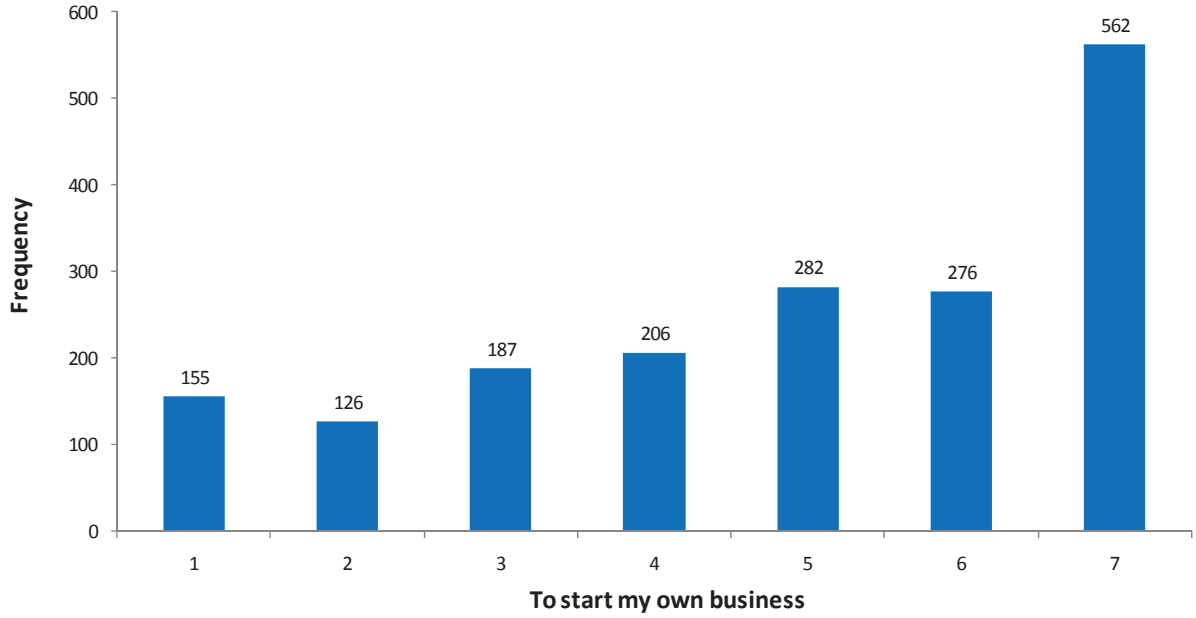


Figure 1: Answer distribution to the "start my own business" alternative

We can also observe that a big number of students from the sample have at least a few creative ideas that they believe could become business ideas. Furthermore, 18% of students believe they have a lot of creative ideas that they believe could become business ideas, which means almost one in five students could carry a big innovative potential (figure 2). This innovation potential is something that needs to be well taken care of and utilized for the benefit of both students and their universities.

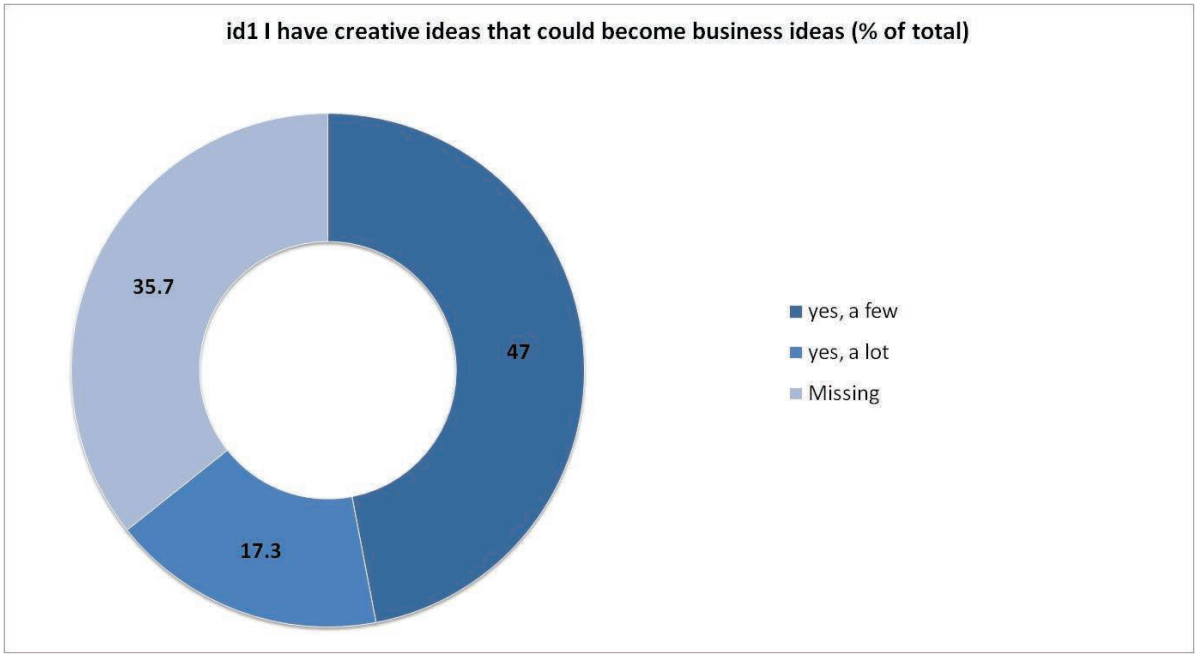


Figure 2: Number of students who believe that they possess creative ideas or not

Students were then asked about their readiness to employ their ideas in some sort of entrepreneurial activity, with slightly more than 50% of those that stated they have some creative ideas (36.4% of the total sample) being optimistic about possible success of their creative ideas (figure 3). On the other hand, almost every other student that has some creative ideas is feeling pessimistic about those ideas, fearing that they would not survive in the business world. This finding suggests that we need to find means and ways to encourage students to work on realization of their ideas, without fear of failure.

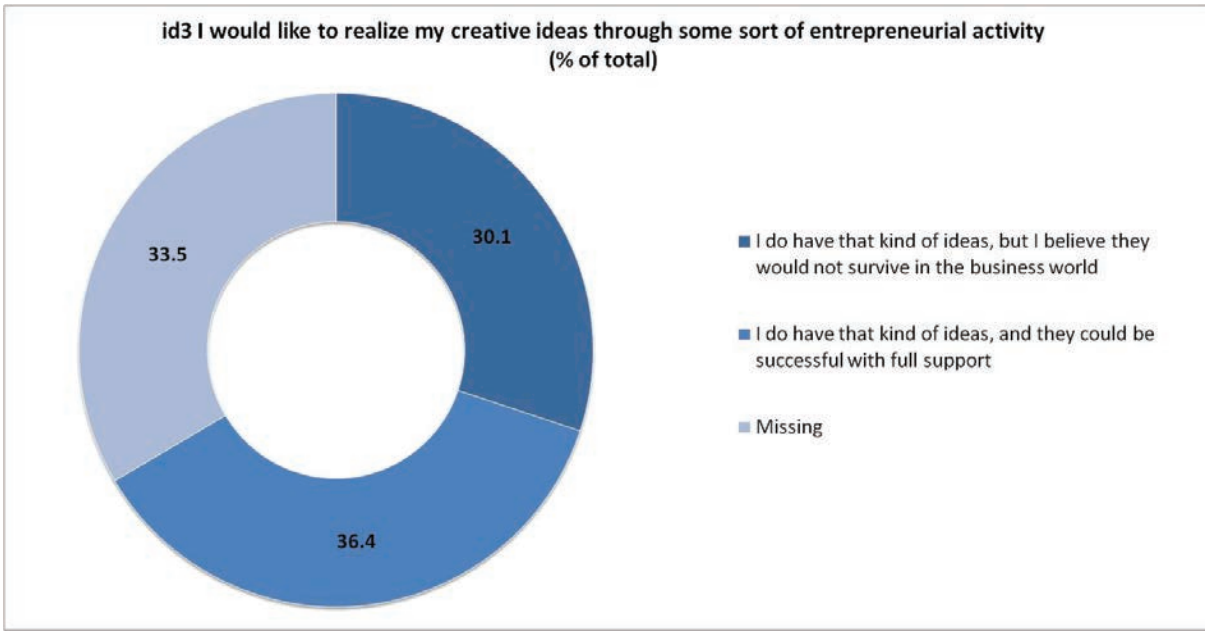


Figure 3: Students' preferences about realizing their creative ideas

The students were also asked about main obstacles that stand in their way when trying to realize their creative ideas. As shown in figure 4, the biggest obstacle is lack of working equipment, followed by lack of working space.

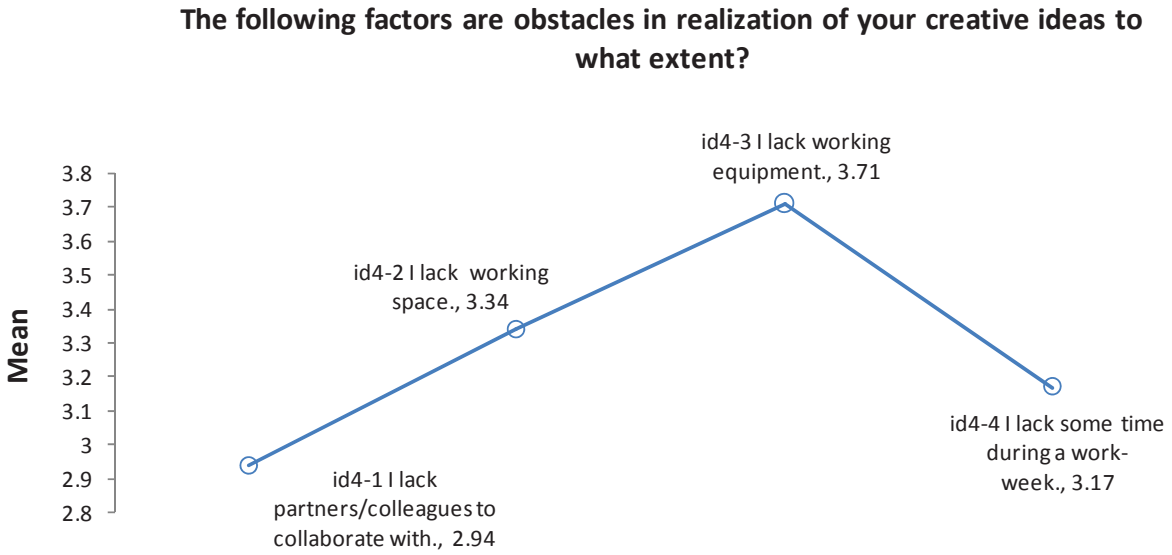


Figure 4: Main obstacles that students face when trying to realize their creative ideas

Students were next asked to mark their agreement with a number of statements relevant to this research, on a scale from 1 to 7. As shown in figure 5, the statement that students mostly identify with is the one that states that their University needs a place where students could develop their creative ideas. This finding is very relevant to this project, as it shows that students have this kind of need. Also, statements about students wanting to be involved in extracurricular activities and practical challenges are highly marked.

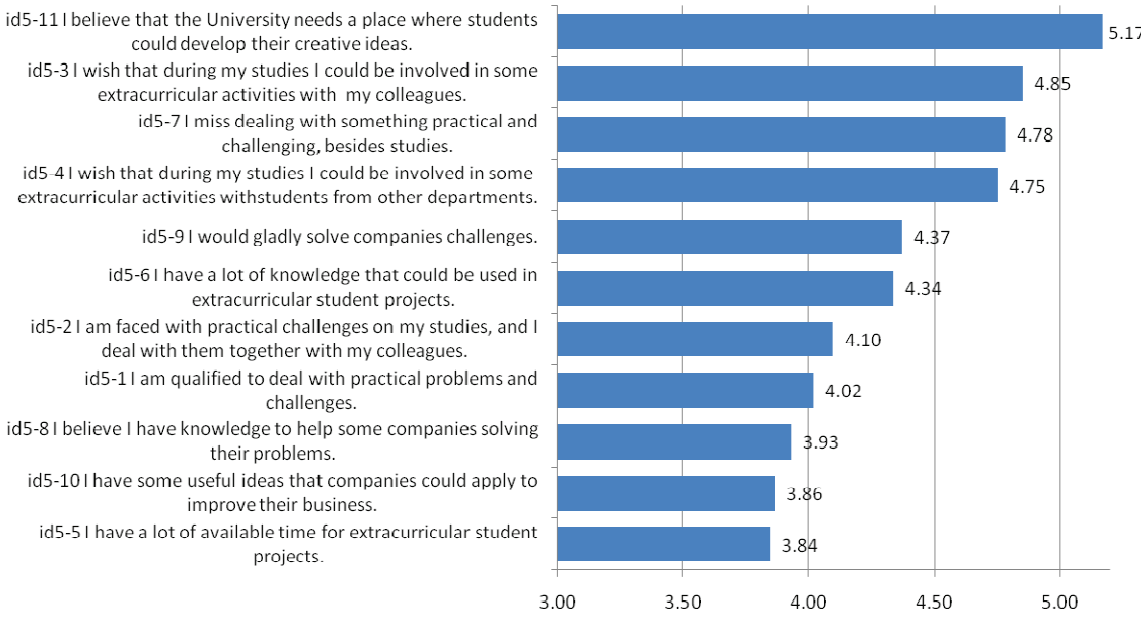


Figure 5: Agreement with a number of statements relevant to this research

More than half of the students (62.6%) state that they would be interested in using some space organized for students' idea development, whether they may have their own ideas or not. While being aware of socially desirable responses that probably did inflate this percent, still there is enough space for optimistic plans with establishing idea labs (Figure 6).

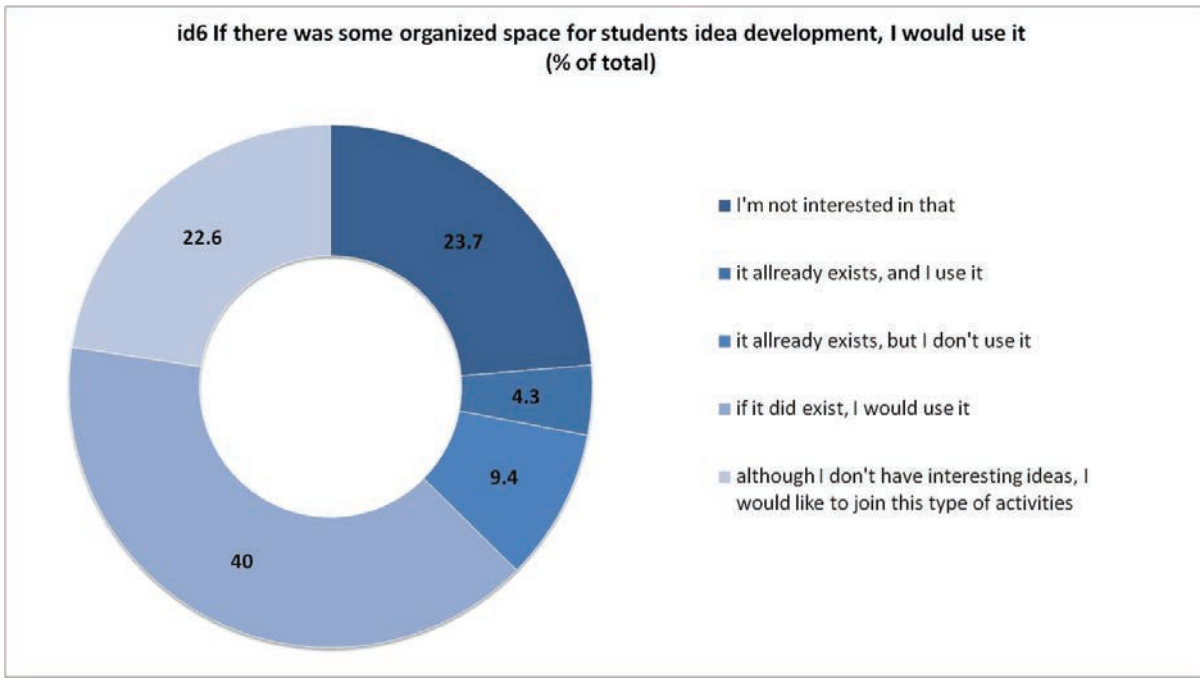


Figure 6: Students' interest in organized space for idea development

Also, students were asked about their curriculum and teachers' behaviour as being growing factors for students' creative ideas and creative problem solving and for their team work with other students (figure 7). The results for both questions are quite similar and positively correlated (Spearman's rho 0.61, significant at .01 level), indicating that they share a common relation with curriculum and teachers. Since most of the curricula deals with subjects that are not creative by nature, it is acceptable to have this type of distribution to these questions, as we cannot expect every subject to develop creative thinking due to convergent problems found in many subjects. Still, the number of students who graded their curriculum and teachers' behaviour as very simulative to their creative thinking is encouraging and shows a potential that could be harnessed.

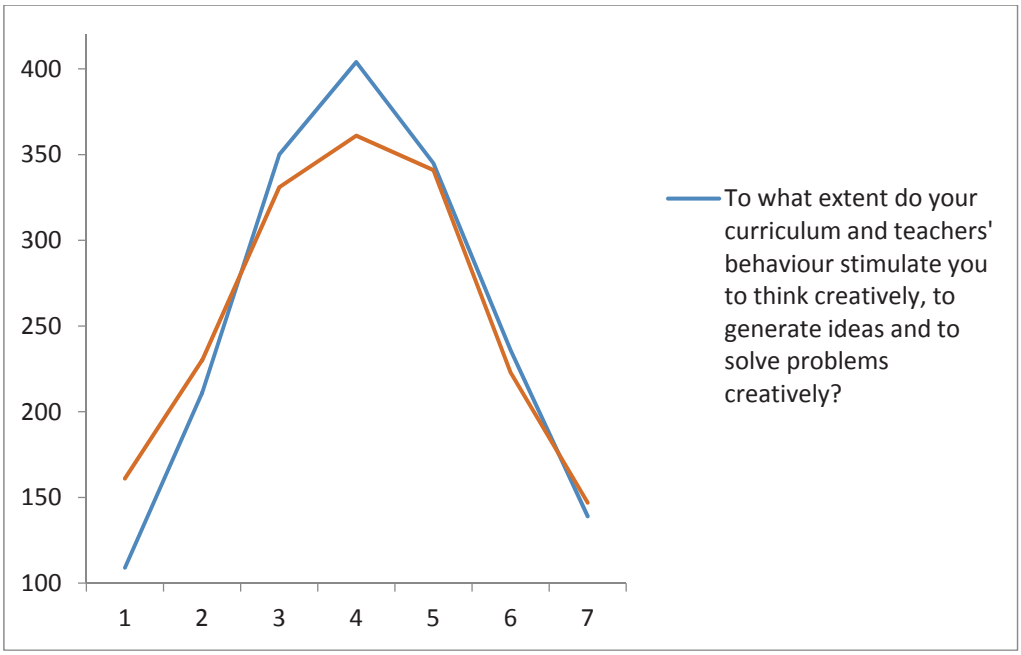


Figure 7: Curriculum and teachers' influence on students' creative thinking, creative problem solving and networking skills

4. Data summary and model proposition

First of all, a significant number of students, 31.3% of the sample, have stated that starting their own business after their studies sounds highly appealing. This means that one in every three students has, at least, good motivation to start thinking in entrepreneurial mindset. This also means that promoting entrepreneurial goals, although highly beneficial, is not something that is primary since a good percentage of students is already inclined to this.

Two thirds of students from the sample state that they have at least a few creative ideas that they believe could become business ideas, which is another finding that supports wide adoption of an idea lab among universities and other HEIs. However, every other student that has some creative ideas believes that his or hers ideas would not survive in the business world. This is a big obstacle, as it may inhibit students' entrepreneurial intentions right from the start. In order to overcome this obstacle, universities need to help students to feel more safe and able to explore and experiment with their business ideas - their entrepreneurial intentions need encouragement. In other words, students need to be offered with some context that will help them to fail safely, and to concentrate on progress instead of potential damage.

Students expressed interest in extracurricular, practical and challenging activities, and also they are highly interested in collaborating with students from other departments. Both lack of working equipment and lack of working space are found to be significant obstacles to realization of students' creative ideas, which advocates for a specific place that could help students develop and realize their ideas. Students have belief that this kind of place would be highly desirable, and they would like to be engaged in these extracurricular activities both with their coleagues and students from other departments. Almost two thirds of the students stated that they would like to use that kind of place, whether they possess creative ideas or not.

On the basis of previously observed results, students' responses need to be combined into a coherent complex suggestion that will result in a model that can be a basis for successful entrepreneurial context for students. It is, therefore, interesting to develop a system that:

1. Embraces students with creative ideas with business potential;
2. Encourages students to realize their creative ideas in a context that frees them from fear of failure;
3. Supplies students with knowledge about business development, project managing, creative thinking, team work, networking skills;
4. Is spacially addequate and is supplied with relevant equipment;
5. Is oriented towards extracurricular, practical and challenging activities;
6. Allows students from different departments to work together and create synergy;
7. Is organized enough to offer integral support for specific result-oriented activities.

This part of the research is intended to offer a model that could be constructed in order to answer students' needs in this area, while still being interesting to the universities and other stakeholders. The authors are proposing a model of an idea lab - a creative space that will allow university students to generate, develop, market and commercialize their creative ideas into business concepts through entrepreneurial route (start-ups) or in collaboration with companies (open innovation). At the same time, this space would allow students to obtain usable knowledge and skills about entrepreneurial activities, both from other peers and experienced mentors. This idea lab is proposed as a hybrid between two concepts that are already familiar in this field, that target different aspects (Figure 8). On the first side, classical living labs are intended as closed systems in which new technology concepts are put to the test in life-like situations. On the other side, pre-incubators are ment to serve as preparatory stations for business ideas.

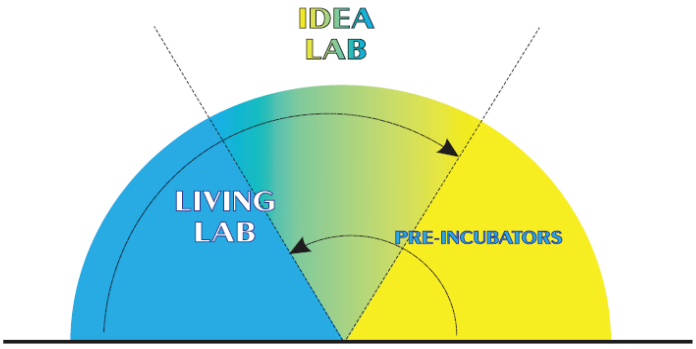


Figure 8: A hybrid nature of proposed idea lab

Proposed idea lab combines these two concepts by allowing it's users to test their ideas in business context, with integral support in all relevant aspects. Students, as idea lab users, will be systematically led, encouraged and directed to develop their creativity towards business-oriented actions. Their tallent, entrepreneurial skills and abilities will be activated and improved with sets of trainings and mentorships organized by the lab. Besides starting their own business, students will be offered engagement in solving problems and challenges from existing companies that will partner with the lab. This opportunity will be highly beneficial to the students, their university and the involved companies, as it will allow practical knowledge, reckognition in the business market, and direct contacts with the economy, as depicted in Figure 9.

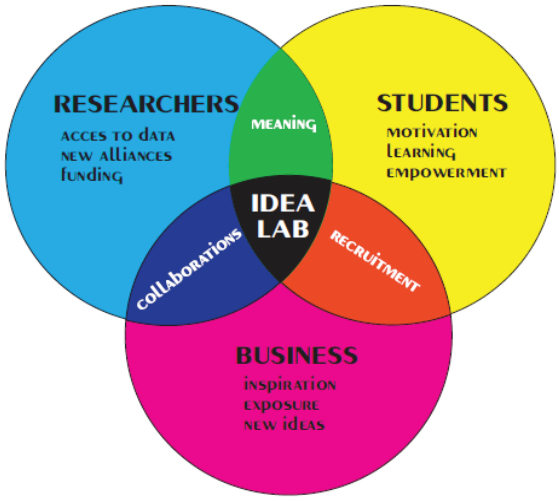


Figure 9: Cross-section of stakeholders and their interests

Besides proposing a single idea lab, it is relevant to construct a network of multiple idea labs that could be connected through a virtual platform for collaboration. In this way, students from different universities could benefit from contacs with peers from other institutions, exchanging knowledge, contacts and ideas between themselves.

Virtual part of the iDEAlab should serve as a platform and a user tool that will enable students to review and develop their entrepreneurial ideas in a simple way, in a friendly environment and in cooperation with selected tutors, regardless of the current location.

The platform should support the whole innovation cycle, from intake and development of the ideas, launching and managing projects to releasing products / services to the market. Virtual

platform should provide direct communication between individuals and teams, tutors and teams in a friendly on-line environment as well as connection with other iDEAlabs from the region and with partner institutions from the business sector.

Acknowledgement

The authors of this paper are very grateful to the TEMPUS project "iDEA LAB" (JPHES 544373-1-2013-1) for enabling and supporting participation at this event.

5. Literature

1. OECD, "SME Policy Index: Western Balkans and Turkey 2012," (2012). in *Progress in the Implementation of the Small Business Act for Europe*. OECD Publishing

2. Todorovic, V., Tekic, Z., Pecujlija, M. (2012). Preduzetničke težnje studenata Fakulteta tehničkih nauka. in *Zbornik radova druge medjunarodne konferencije "Ucenje za preduzetnistvo"*, pp. 205 – 215

3. Radevic, D.,Tinaj, S. (2011). Entrepreneurial behaviour among students–case study of University of Donja Gorica, Podgorica, Montenegro. in *Proceedings of First REDETE Conference - Economic development and entrepreneurship in transition economies*, pp. 304 – 311

4. Karanassios, M., Athianos, S., & Zlatintsi, P. (2006). Student Entrepreneurship in the Balkan context. *Higher Education*. 20(2), pp. 85–96

5. Tolentino, L. R., Sedoglavich, V., Lu, V. N., Garcia, P. R. J. M., Restubog, S. L. D. (2014). The role of career adaptability in predicting entrepreneurial intentions: A moderated mediation model. *Journal of Vocational Behavior*, *85*(3), 403–412.

6. Tekic, Z., Kovacevic, I., Vrgovic, P., Orcik, A., Todorovic, V., Jovanovic, M. (2013). iDEA Lab : Empowering university – industry collaboration through students' entrepreneurship and open innovation. in *International Conference on Technology Transfer 2013*, pp. 269–272.

7. McPhee, C., Westerlund, M.,Leminen, S. (2012). Editorial: Living Labs. *Technology Innovation Management Review*. 2(9), pp. 3–5, 2012.

8. Kirby, D. A. (2004). Entrepreneurship Education and Incubators: Pre Incubators, Incubators and Science Parks as Enterprise Laboratories. In *14th Annual IntEnt Conference, Universityof Napoli Federico II, Italia*.

9. Vincett, P. S., Farlow, S. (2008). "Start a Business": an experiment in education through entrepreneurship. *Journal of Small Business and Enterprise Development*, *15*(2), 274–288. doi:10.1108/14626000810871673

6. Appendix 1

Questionnaire for assessing students' innovative potentials and expectations

iD01 I have creative ideas that could become busines ideas.

1. no 2. yes, a few 3. yes, a lot

iD02 I had some ideas about how to organize some things and make them happen

1. no 2. yes, a few 3. yes, a lot

iD03 I would like to realize my creative ideas through some sort of entrepreneurial activity.
1. I do have that kind of ideas, but I believe they would not survive in the business world
2. I do have that kind of ideas, and they could be successful with full support

iD04 To what extent are the following factors obstacles to realization of your creative ideas?

1. I lack partners/colleagues to collaborate with.	1 2 3 4 5
2. I lack working space.	1 2 3 4 5
3. I lack working equipment.	1 2 3 4 5
4. I lack some time during a work-week.	1 2 3 4 5

iD05 Identify level to which the following statements relate to your studies.

1. I am qualified to deal with practical problems and challenges.	1 2 3 4 5 6 7
2. I am faced with practical challenges on my studies, and I deal with them together with my colleagues.	1 2 3 4 5 6 7
3. I wish that during my studies I could be involved in some extracurricular activities with my colleagues.	1 2 3 4 5 6 7
4. I wish that during my studies I could be involved in some extracurricular activities with students from other departments.	1 2 3 4 5 6 7
5. I have a lot of available time for extracurricular student projects.	1 2 3 4 5 6 7
6. I have a lot of knowledge that could be used in extracurricular student projects.	1 2 3 4 5 6 7
7. I miss dealing with something practical and challenging, besides studies.	1 2 3 4 5 6 7
8. I believe I have knowledge to help some companies solving their problems.	1 2 3 4 5 6 7
9. I would gladly solve companies challenges.	1 2 3 4 5 6 7
10. I have some useful ideas that companies could apply to improve their business.	1 2 3 4 5 6 7
11. I believe that the University needs a place where students could develop their creative ideas.	1 2 3 4 5 6 7

iD06 If there was some organized space for students idea development, I would use it.
1. I'm not interested in that
2. it allready exists, and I use it
3. it allready exists, but I don't use it
4. if it did exist, I would use it
5. although I don't have interesting ideas, I would like to join this type of activities

THE ROLE OF HR-MANAGERS IN SUPPORT OF INNOVATION OF EMPLOYEES WITH THE PURPOSE OF GREATER COMPETITIVENESS OF AN ORGANIZATION

Mirela Kljajić-Dervić

Bosnia and Herzegovina

mirelakd@yahoo.com

Šemsudin Dervić

Zavod zdravstvenog osiguranja USK,

Bosnia and Herzegovina

semsudin.dervic@yahoo.com

Abstract

Recommendations for the establishment of a culture of innovation and systematic and methodical training and education of employees for strengthening intellectual capital in the organizations in Bosnia and Herzegovina.

For good future results of the organization, it is of great importance that immediate leaders cooperate and top management has support from the HR-managers, as well as that the organization knows how to develop two significant strategic competitive abilities: flexibility (the ability of fast internal restructuring in order to perform necessary changes required by the market or changes which organization creates in its market) and sensibility (the ability to react quickly, understanding and shared realization changes in its surroundings). With the right HR activities, an HR manager can make a positive impact on the achievement and innovation of employees. In support of innovation and success in business and all the activities connected with human relations in the business, the key of success are HR-managers. At the turn of the 20th century, intangible or intellectual capital takes a leading role in ensuring the competitiveness of countries and organizations, ensuring more than 80 percent of wealth in the developed world. HR-managers must set up vacancies and shape the architecture of a competitive company which again leads to successful idea sharing. They can also have an effect on the authorities and formalization. Therefore, if we want to strengthen competitiveness, it is necessary to systematically and methodologically train and using education strengthen intellectual capital. With innovative employment strategies we can hire creative people in the company whom you need to develop constantly and, with an employee reward system, support further innovative proposals. In that way, with establishing a culture of innovation, which is based on participation, the dynamics and flexibility of work is achieved. With that kind of dynamics we achieve good interpersonal relations, supported with discussions and creative conflicts, confidence, communication and the support of new ideas. You certainly cannot forget the support of top management and cooperation with the immediate leader of employees.

The realization of the mentioned recommendations will undoubtedly help organizations to be more successful and competitive. Both their number and scope require concepts, based on which HRM can systematically develop and manage education and training and with which the organization's management can run and monitor their business success and effects more easily. We hope this will lead to an indisputable stronger position and credibility of the HRM in the eyes of management and other key stakeholders within the organization. Certainly, the above recommendations and guidelines may be useful in achieving competitiveness of organizations in Bosnia and Herzegovina.

Keywords: *HRM, Culture of innovation, Intellectual capital.*

1. Introduction

If today's organizations want to survive in the present constantly changing environment, with emphasis on the period of recession, and at the same time realize a lasting competitive organization, it is necessary to successfully perform business activities, which in the 21st century are no longer routine, but require a different and more complex thinking of the employees. The effectiveness of these companies is no longer a key feature, but the search for different solutions to new problems. According to Professor Prahalad (Prahalad and Ramaswamy, 2004) these organizations, will have to use a completely new approaches to management and leadership. In the best possible way they need to approach two directions, which at first sight are totally opposite: a clear strategic view of the future and long-term thinking and operational excellence and resilience. This means that they must not use the approach "wait and then react" and "hear and then reply" anymore, but for them the only usable approach will be predict and realize. It can be linked to Draker's expression: The best way to predict the future is to make it real. Therefore, for the organization that wants to be successful, it is crucial to know how to develop two significant strategic competitive capabilities, which are sensitivity and flexibility. Sensitivity is the ability to rapidly detect, understand and co-achieve changes in a new environment, and flexibility is the ability of fast internal restructuring in order to carry out the necessary changes required by the market that is which are created by an organization at its market. (Štempihar and Brčaun, 2010).

Modern research (Birkin-Shaw, Hamel and Mol, 2008; Liao and Price, 2010) emphasize innovation as one of the most important factors of business success. The research results of IBM 2010 Global CEO Study also confirm that argument. Along with this important factor, the aforementioned research finds two more success factors of a company, and these are creativity and proximity to the customer. The condition of innovation activities in B&H organizations suggest that the innovative performance of our organizations is insufficient or that it is rarely recorded. This is also expressed in the comparably low added value per employee. There are many reasons for this. One of the important factors is the extremely weak financial support for innovation, the other are business models that do not support innovation, followed by a very low level of innovation in services, as well as undeveloped or underdeveloped organizational culture of innovation.

It is the role of a HR-manager that is particularly important in the organizational culture of innovation. The problem of Bosnian organizations lies also in low qualifications of staff, as we already mentioned in the very weak financial support in the development of employees and unrealistic organizational innovation. We particularly emphasize here the collecting of ideas from employees, the support of coming out with an idea, their adjudication and implementation.

2. Changed factors of competitiveness

A little more than ten years according to the study of the Boston Consulting Group and the European Association for Personnel Management, employees have become the least common source of all business sources in a company. For organizations this means that they must start now to strategically and systematically deal with the management of potential and talents of employees (Strack et al. 2009).

Seen from the perspective of history, the relative importance of factors of competitiveness has changed along with changes in the meaning of economic sectors in the economy. In the 80s, technology has become the most important factor of competitiveness, in the 90s it was not only technology, but how it was used too, this means knowledge and information. Today, with the flood of information and easy access to them, a great advantage becomes the ability of rapid selection of data and information and by networking knowledge, who and where has it, also the ability of their fast conversion into practice and implementation. This means that organizations must act in

accordance with the saying "the right information in the right place." The most original and important contribution, given by management in the 20th century was 50 times greater increase in productivity of the production worker. And the contribution, which must be given by the 21st century is to similarly increase the productivity of intellectual labour and intellectual workers.

Towards the end of the 20th century and beginning of the 21st century the intangible or intellectual capital takes the major role in ensuring the competitiveness of the state and organizations and provides more than 80 percent of the wealth in the developed world. Intellectual capital is a unique economic category which represents the tangible and intangible factors which are crucial for achieving and maintaining sustainable growth and competitiveness in the 21st century, and they are the result of creative application of knowledge (use of knowledge in creating new added value). That basically means that the value of innovation (patents, trademarks, copyrights ...) is organizational practice (networking) and human capital (knowledge, ideas, skills and creative potential of the individual). A large part of that capital is hidden knowledge, which in organizations is often still unused. This means that if we want to increase the competitiveness of B&H organizations and of Bosnia and Herzegovina, it is necessary, by systematic and methodical training and education, in particular to strengthen the intellectual capital, the only non-fixed capital, which can be continually increased. Stimulation of this capital in an organization that is development of large, often highly untapped potentials of employees largely depends on their immediate leaders. Leaders that is managers need to know how to create conditions in an organization, where employees feel comfortable, that they belong to it, that they are eager to make maximum use of their knowledge, experience and skills, that they are motivated for new challenges and well prepared for changes.

3. The role of HR-managers in organisation

In modern organizations, the manager is the one who has the organizational strength and authority to lead a modern enterprises. He is responsible for creating a shared vision, he has to understand and face different views on the world and support systematic thinking. The main role of a manager in the modern organization or an organization which is learning is to support associates and to support active learning at all levels and to educate himself continuously (Dimovski et al, 2005). In the opinion of author DuBrina (2000), the role of managers in modern organizations has changed radically from the role of supervisors and controllers into the role of trainers and supporters. The modern manager is a partner with other members of the team, with whom he tries to achieve results.

According to authors Možina and others (2002) the original role and tasks of managers in an organization that teaches is first preparing such an working environment where everyone will be happy to learn, second as many barriers as possible have to be removed and a lively exchange of experience has to be supported, which means that they must ensure the free flow of innovation, and third leading workers, managers need to promote a culture of learning. According to Seng, a manager in an organization has the role of a designer, the role of a teacher and the role of an assistant (steward) (Seng, 1990).

Based on these two determinations of the role of HR managers we can conclude and say that in any modern organization the original role and tasks of managers must be:

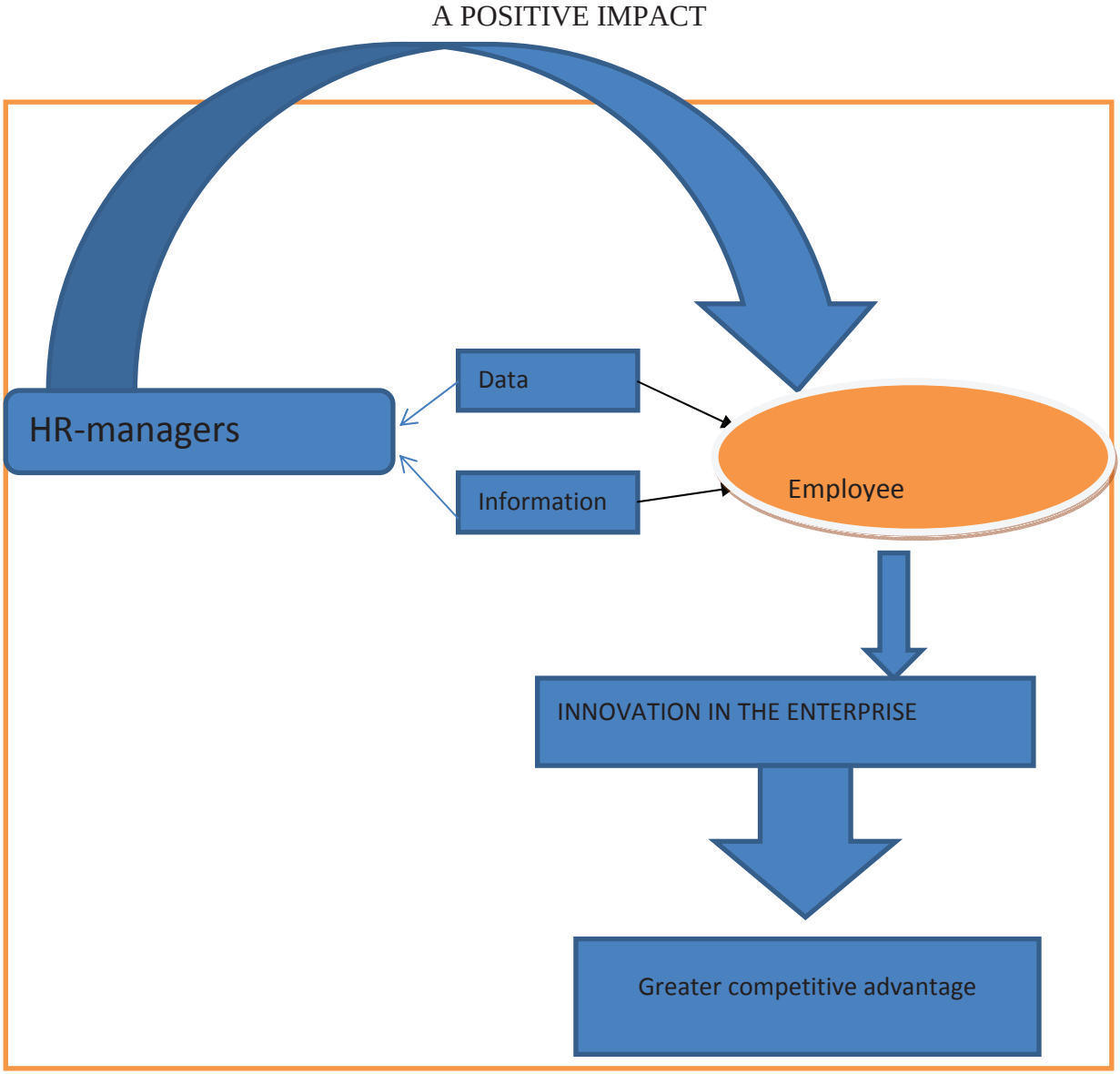
- that the manager is the designer of the working environment, where everyone will be happy to learn and adapt quickly to changes and create changes themselves;
- that the manager is a teacher who likes to teach and spread knowledge, who supports exchange of experiences, the free flow of innovation
- that the manager is an assistant who promotes a culture of learning within the organization.

Further we'll show how essential the role of a HR-manager in the support for employees' innovativeness in the organization, so that the same has the most competitiveness on the market. We'll decide the role of HR managers in the support of innovation based on the original three roles.

4. Innovation in the organization

The best response to the challenges is offered by the orientation to non-technological innovation and innovation in business organizations and linkage with all participants in the company in finding and implementing creative ideas (open innovation). Open innovation requires, in addition to the use of internal, also the use of external ideas and directions to the market (Chesbrough, 2007).

Figure 1: The process of innovation in the enterprise



National Innovation System (NIS), which is defined by the OECD defines a system of institutions which jointly and individually contribute to the development of new technologies and in which governments by developing and introducing policies affect the innovation process. NIS also recognizes innovation as a social process in which a bunch of different actors play a role, and their social environment includes five categories of organization, namely: enterprises, universities, research institutes, organizations that encourage scientific and technological progress, the State

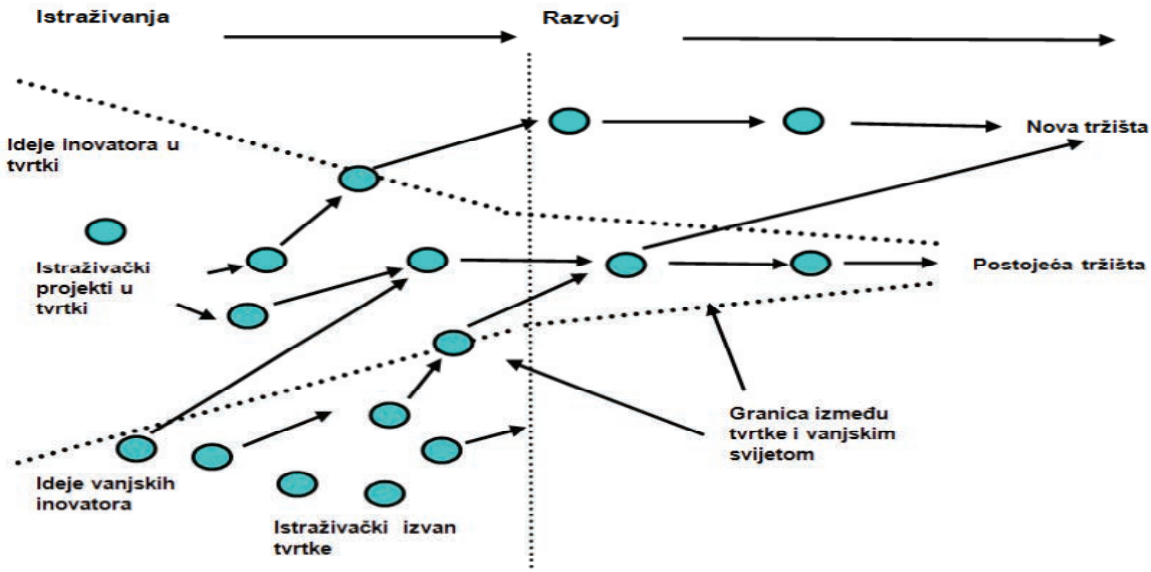
(2008). The OECD points out that, due to the rapid technological development and growing global competition, the life cycle of products and services has significantly reduced. This requires faster and more effective development of new products.

To achieve competitiveness, constant changes in the market require companies to open outside in their business, and at the same time to become more sensitive with respect to external knowledge and ideas, which are finalizing their internal research and development process. The development of successful innovation requires an increasing integration of different technologies, which increases the cost and risk and toughens conditions. This encourages interdisciplinary enterprises and the pursuit of complementary knowledge and technologies outside the company.

Innovation in business models include the activities and decisions in the field of logic for profit, internal resources of competitive advantage, a network for achieving value, strategic decisions and achievments and offering value (Nenonen and Storbacka, 2010).

HR-managers are very important for the introduction of innovative business models in the management of internal resources of competitive advantage. As part of managing with them especially with employees, the role of HR systems and strategies may be essential in the development and implementation of an organizational culture of innovation and support to creativity. It is necessary to change the mindset of employees to support them in creativity.

Figure 2: The principle of open innovation



5. HR-managers and innovation

Today's business environment is more complex, volatile, uncertain and trickier than it was in the last century or a few years ago. Co-dependency of organizations is bigger and heavier to master, the arrival of new breakthrough technologies and based on radical innovation, is faster. That’s why the connection and intertwining of processes in the organization with the processes in the region is growing. There’s less available funds for investments. This is forcing organizations to even greater rationalization and optimization, and securing of their investments. Due to the increasing average age of the workforce it is necessary to continue to perform innovative improvement of their productivity. The fight of organization for the best talented personnel is increasing, particularly for

personnel, who are able to transfer their creativity in solutions and who particularly well meet the needs of the clients or even co-generate them. In addition to this, the awareness of clients has also drastically increased.

In such an complex business environment the role of HR managers in the management is increasing, as well as in the support to innovativeness of employees with the goal to achive success of the company, and a greater competitive advantage in the market. We'll present you the key findings of our qualitative research and recommendations later in this paper.

5.1 Open innovation

First we'll focus on open innovation. In a world of dispersed knowledge, a company cannot rely only on its own development, but also on a purchase or taking of a license or inventions from other companies, institutes, and partners. Innovation is all around us.

That's how you realize a global open innovation systems, not only ad hoc connections, when cooperation is necessary. Examples include technological networks and associations and centres of excellence, which in the last year after the Scandinavian example were introduced in other regions in Europe. Each company in its organizational structure must develop their own open business models that enable open innovation, thereby contributing to the success of the business as well as increased competitiveness.

Open innovating brings challenges, to which the management of companies involved must respond to. Here it is very important to note that the company, sector, department must be included in the open innovation on time that is as soon as possible, otherwise they will fall behind the progress, hinder other participants, and the result is mostly negative. The problem with open innovation lies also in the fact that the entire company or the top management is not engaged enough in this issue and in this way research and development in open innovation faces problems. Exactly these deficiencies were the first and biggest observed by top management in the Bosnian-Herzegovinian companies, because in most cases not there's not enough interest for such progress solutions, they do not know the profession well that is the area of development, and of course it is necessary to emphasize that they don't have sufficient financial resources. For these reasons, the role of HR managers, who will be able to convey the right information to top management regarding the solution of open innovation and on the other side support staff in the realization and implementation of such solutions, and all this with the ultimate goal of business success, is essential.

5.2 Innovation within companies

When we talk about innovation within a company, therole of HR manager is the most important link in the process. The function of leadership is the most important in ensuring the personal skills and knowledge of employees. Innovation is affected by individual factors (personality, motivation, opinion, work features and mood), which must be taken into account when working, open to risk, creativity and innovation.

How to design innovative jobs?

HR-managers also play an important role in the analysis and design of jobs. In the description of tasks it is necessary to exactly determine what is expected of an individual in terms of innovation - in making certain proposals or direct cooperation in innovation. It is necessary to detect and utilize hidden talents of employees and to set up the strategy for innovation on the basis of unique intangible assets of the company. These are certainly the employees and their possibilities.

Everyone must be involved in innovation, not only employees, but all shareholders of the company (suppliers, partners, owners and customers).

When setting goals and strategies of innovation the participation of employees, who direct decisions and priorities of the company, is crucial. For this it is necessary to ensure the coordination and integration of orientation towards innovation into a single system and learning to improve innovation. Supporting new ideas is certainly significant here - companies must have employees, who will provide new thoughts, and do not try to limit them. Only in this way it is possible to fully utilize and protect the value of innovation (Dodgson, Gann and Salter, 2008). It is significant to point out that new ideas and information often come from parties or partners, we may collect the same from portals, databases, which contain the acquired knowledge of employees.

Hamel (2007) points out that when designing jobs one needs to be aware that innovation in a company is a group phenomenon, and that is why good relations are important. Good relations can be achieved with debates and creative conflicts, trust, communication and support of new ideas. For innovation in social processes teamwork is essential.

In the organization of educational institutions and the Employment Service in Bosnia and Herzegovina, companies often have the opportunity to acquire new knowledge, talent and employees with special abilities and skills at various events such as the "employment opportunity".

HR-managers have also an important role in improving the innovation potential because there is the organizational structure and systematization of jobs. It is necessary to form formal social networks and support spontaneous communities of common interests. It is necessary to take care of the premises where employees will socialize, carry out exchange of views and ideas, real or virtual based on applications - systems for the communication of employees, such as, for example, morning coffee, fairs, various forums. It is HR-managers who must propose such a form of informal organization of employees in order to gather the right information and ideas.

Many of world's successful companies are also aware of the meaning of the structure of jobs. For example, Red Bull London supports the exchange of views with terraces for socializing of employees, public institution MidLab within the Danish Ministry of Economic Affairs, took innovation very seriously and converted the walls in conference rooms into "read / write" panels, where everyone can write proposals and all associates can see it.

Autonomy in the workplace is essential, that is why HR-managers have to design jobs so as to allow employees the autonomy so that creative ideas do not get lost in routine tasks, but that they become innovations. Employees must have a free hand, in order to be creative. Coordination and communication are a natural feature of the organizational structure and culture, and not a result of managerial efforts (Dodgson, Gann and Salter, 2008). In order to awake a researcher in an individual, the individual must be operationally autonomous. Only in this way he is entrepreneurial oriented, he express ideas, and is pleased with the success. A change in thinking is most easily accomplished if managers know their employees, their goals, values, and connect them with their work and rewards.

Whom to hire and how to undertake the development of employees?

When we have set up the development strategy of the company, formed an adequate organizational structure and within workplaces determined responsibilities and authority, we come to the key question what the following HR-activities is? That is employment. Today, employment can be performed with different types of advertisements and methods of employment. We particularly emphasis here the use of modern approaches, such as career fairs, conferences,

scholarships and career centres. The election procedure itself can be innovative, so that we involve future staff in the recruitment process and conducting interviews with the candidates. Innovative individuals may be attracted by innovative employment ads. Around the world, recruitment agencies are the one that carry out the best selection of candidates because they know that area very well.

Our companies, unfortunately, use specialized agencies for employment of innovative personnel in a very small percentage. In most cases, the employment in our companies is performed without ads, through private-interest bonds, and without any plan. This leads to a very important, and at the same time sad information that our companies have no company strategy, no long-term development strategy of the company, and no employment plan of innovative staff, which is destroying the whole concept of innovation, not only for that company but for the entire country. This is because the country's competitiveness is measured by the power of companies that operate within the state.

Since we emphasized in the previous paragraph that our companies usually don’t have an employment plan, we also have to point out the fact that the same don’t have a development plan both of the existing as well as of future staff. Training and development of employees is done along the way and without a plan and program, and without justification and necessity. And the development of employees is the next HR-activity. This activity includes education and training. With innovation the creative and steady development of individuals is essential. For this activity the resources intended for the education of employees in the area of innovation, which are associated with the operations of the company are very important. The funds for the education of employees in our companies are still taboo that is they still represent only the cost of business trips without a plan of education and training, and without feedback and final responsibility.

How to shape the organizational culture of innovation?

About the organizational culture Jacques already wrote in 1952 one of the first definitions of the organizational culture and marked the same as the usual and traditional way of action, which was accepted by all the existing members, and which has to be accepted by any new members who wants to join the organization. Harrison (1972) defines organizational culture as ideologies, beliefs and values, which are developed in all enterprises and provide the methods of action of employees. One recent definition is the one of author Zupan with co-authors (2005) who defined organizational culture as a complex, intangible concept, which is made up of visible (employees' knowledge, customs) and invisible work (the value of the organization). It is formed over time and the same is difficult to change.

Based on the previous definitions it is very important for any company to shape its organizational culture so that it will be different from others, which represents a good working basis, autonomous environment and supports employees in their creative ideas.

The company Zappos is a good example in the world in the area of other HR-activities regarding the culture of innovation. Their business model is characterized by exceptional relationship with clients. The main resource of the rapid growth of the company were again customers, who even represent 60 percent of customers. The basis for successfully satisfying parties lies in the culture of the company. In the Spanish company Mondragon, who are successfully operating for 54 years, are also aware of the culture of innovation. Their main value is democracy, because everyone employed has the right to vote, employees elect the management and draw up a supervisory board. They also have an ownership share, which they can take.

Within an appropriate organizational culture, different leadership styles that support communication, teamwork and powers of employees and support new ideas and creativity come to the fore. This creates mutual and individual responsibility of employees to act in the interest of the company (Bryan & Joyce, 2007). In this case, the meaning of top management is pointed out, because without their initiative and support of HR-managers and with the direct leading, they would fail to realize innovative processes.

How to reward innovation and support staff?

Today, rewarding employees belongs in the major psychological work stimulators, that is why the main issue is how to affect employees, how to reward them that is how to better motivate them so that they get the work done well and efficiently. In doing so, it is necessary to make sure that labour costs do not increase significantly. The reward system of a company depends on the company itself and of its objectives.

Rewarding is an activity, with which HR-managers can have a significant impact on employee innovation. The most important is to include innovation into goals, which are the basis for rewarding. Employees know that they are expected to innovative thinking and action. One possible reward are bonuses to individuals and groups.

A positive example in B&H society is a US company which rewards its employees for every creative idea with a touristic travel to a destination of their choice and accompanied by another person. The world-famous Finnish Nokia, rewards its engineers with more than 10 patents in a year with a symbolic admission to the elite Club 10. By doing so they support employees in a creative proposal within the established pattern of thinking, because it can bring a reward.

Another positive example in Bosnia and Herzegovina, are different programs in the organization of the local community that is municipality who organize different events with the purpose of gaining new ideas for community development. The best ideas are rewarded financially.

It should be noted that innovation requires organizational culture, tolerance to risk, mistakes and current failures. That is why it is necessary to experiment often in order to get a successful idea. Experimentation is the key to innovation and design business models, which also means disappointment (Dodgson, Gann and Salter, 2008). It could be more successful than planning (Hamel, 2007). It is important not to be afraid to try something new. A good example of this is the company Apple where it is practically shown how many times we have to carry out experiments in order to finally reach excellent results. The first product produced by the company Apple was the product iPad, which was not successful, then Steve Jobs came up with the idea, that it would be great to use the many features of the iPad in the form of a phone. That’s how they created the IPhone.

Conclusion

The innovation may be a new idea, a new product or technological process, or a new service with new features. Innovation brings a new, greater versatility in the form of increasing quality, lower costs, raise the reputation of the company and greater competitive advantage. That is why we can say that innovation is not something that will happen overnight, but it is a process that requires time, effort, teamwork and proper planning and guidance. In order for innovative activities to be successful they need to be led by a plan. This is where the role of HR - managers and their activities come to the fore.

Changes cannot happen without the solid support of top management, which plays an important role, especially in innovation in business models, in the formation of open business models in general and in creating an organizational culture. In order for innovations to see the light of the day and for companies to benefit from them a cooperation of immediate leaders and employees, and support of work and communication is required. All this reflects a positive organizational culture that offers the business environment for a good result. Only with all these conditions met it is possible to involve all employees in the innovation. HR-Manger have the most important role in the management of internal resources of competitive advantage, whereby employees can within the HR-activities give their creative potential and contribute to the innovation of the company. Employees must develop their talents and make creative proposals and try to achieve them.

Finally, we must point out another very important role of HR-managers in such a fast changing business environment, and that is the collection and keeping of qualified, motivated, and empowered employees, affiliated and related to professional teams and networks who realize a greater competitive advantage to one or more companies and in relation to that also higher product quality and lower costs.

If we want B&H companies to become the basis of innovation, we must first change the business policy of the state, then the business models and thinking of managers and employees in the company, we must support creative thinking, increase the financial portion in the education and training of employees, follow trends on the market, invest in research and development and in the end it is very important to connect with other companies in the region and beyond.

We must be aware that the company's profit can be made by an employee, of which we would least expect it.

References

1. Akhan, P., M. Jafari in M. Fathian. 2006. Critical success factors of knowledge management systems: a multicase analysis. *European Business Review* 18 (2): 97–113.
2. Birkinshaw, J., G. Hamel i M. Mol. 2008. Management innovation. Teh Academy of Management Review: 33 (4): 825 – 845.
3. Bolle de Bal, M. 1990. *Plačilo za uspešnost v sodobni družbi*. Kranj: Moderna organizacija.
4. Bryan, L.L. i C. I., Joyce. 2007. Mobilizing minds: creating wealth from talent in the 21 st century. New York: McGraw-Hill.
5. Chesbrough, H. 2007. Open business models: How to thrive in the new innovation landscape. Boston: Harvard Business School Press.
6. Dimovski, V., S. Penger, M. Škerlavaj i J. Žnidaršič. 2005. Učeča se organizacija: ustvarite podjetje znanja. Ljubljana: GV Založba.
7. Dodgson, M., D. Gann i A. Salter. 2008. The Management of technological innovatin: strategy and practice. New York: Oxford Univeristy Press.
8. DuBrina, A. J. 2000. The active manager: how to plan, organize, lead and control your way to success. London: Thomson Learning.
9. Hamel, G. 2007. The future of management. Boston: Harvard Business School Press.
10. Harrison, R. 1972. Understanding your organization's character. ***Harvard Business Review*** 50 (3): 119–128.
11. IBM. 2010. Global CEO Study. New York: IBM Institute for Business Value.
12. Jacques, E. 1952. *The changing culture of a factory*. New York: Dryden.
13. Liao, T. i J. Price. 2010. Innovation investments, market engagement and financial performance: a study among Australian manufacturing SMEs. Pesearch Policy, 39(1):117-125.

14. Meža, P. 2002. Projektni management in industrijski grozdi. Magistarski rad Univerzitta u Mariboru, Fakultet za mašinstvo.
15. Možina, S. 2002. Učeča se organizacija – učeči se management. U Management: *nova znanja za uspeh*, ur. S. Možina, 12–45. Radovoljica: Didakta.
16. Nenonen, S. i K. Storback. 2010. Business model design: conceptualizing networked value c-creatin. International Journal of Quality and Service Sciences. 2 (1): 43 - 59.
17. OECD. 2006. *Creating value from intellectual assets*. Paris: OECD.
18. Prahalad, C. K. i V. Ramaswamy. 2004. The future of competition. Boston: Harvard Business School Press.
19. Senge, P. M. 1990. *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday/Currency.
20. Strack, R., C. Jean-Michel, P. Zimmermann, C. von der Linden, R. Thurner i P. Haen. 2009. Creating People Advantage. Boston: BCG i EAPM.
21. Štempihar, A. i F. Bračun. 2010. Poslovni pristupi budućnosti. Kranj: Založba Askit.
22. Zupan, N., R. Kaše, M. Črnigoj, S. Poljković, V. Tomažin in T. Umberger. 2005. Značilnosti in razlike v organizacijski kulturi podjetij v skupini Helios: primer Helios, Color in Zvezda Helios. Ljubljana: Časnik Finance.327–348.

EFFECTS OF BUSINESS PROCESSES ON BUSINESS PERFORMANCE IN THE ORGANIZATION

Ivan Peronja[190],

PhD; Darko Rendulić[191],

PhD; Marija Peronja

Abstract

Process approach to managing the organization and implementation of Business Process Management model is becoming the rule of organizing work processes and achieving market advantages when process organizations compared in relation to the traditional organizational structure. In this context, there is a good reason to consider different models, methods and tools of business process management in the organization. On the relevance scale, managing and support processes occupy a special place next to core processes. This paper tests how business processes influence organizational performance.

Keywords: *business-, support-, management processes and organizational performance*

[190] The University Department of Professional Studies at the University of Split, Kopilica 5, HR-21000 Split, Croatia, iperonja@net.hr

[191] Karlovac University of Applied Sciences, Trg J.J.Strossmayera 9, HR-47000 KARLOVAC, Croatia, darkorendulic1@gmail.com

1. Introduction

In the past 30 years, developed countries have been reforming their economy, according to market standards. These reforms have led to the establishment of a modern, globalized market economy.

However, when the efficiency of the company is analyzed, the answers to the questions, what to do and how to do something, are taken into consideration. In the context of improving business efficiency, the question of management and impact of business processes on organizational performances within the organizational structure are inevitable. Answers to these questions should be as detailed as possible and should help in finding the answer to the question how to efficiently improve organizational performance and manage changes in business processes. By applying effective business processes in organizations, it is possible to achieve greater flexibility, reduce costs, improve the quality of products and services to end-users and increase their own capacity. Business process management and the influence of the business processes variability on achieving the strategic goals contrast successful companies from the others. In many cases, business processes exist within a single functional segment of the organization. It is important to know that business processes are not expressed numerically. Business processes often represent a particular business function that is deeply integrated into the workflow of the process itself.

Business processes emphasize the benefits that end-users have from continuous repetition of conversion of inputs into outputs.

1.1. Characteristics of business processes, management processes and support processes

By defining business processes, most authors share the opinion that they are about interaction between different people, equipment, methods and resources in order to achieve new added value for the end user during the transformation of inputs into outputs (Markić and Tomić, 2006 quoted by Buble, 2010., pp 19).

Different definitions of business processes are attached to different types of them.

The basic division of business process involves three types of processes, and they are management processes, core processes and support processes (Buble et al., 2010., pp 21).

Generally, it can be said that the business process is a framed mediation sequence of activities that is developed under certain circumstances where the beginning, the flow and the end can be clearly identified, all with the aim of creating the added value for the end-users. Business process can be defined as a structured, analytical mediation set of activities that require continuous improvement. These activities have clearly defined beginning and end, during which the added value for consumers is created at more or less regular intervals (Vukšić, Hernaus and Kovačić, 2008, pp 18).

Work processes involve consideration of the technological process and the course of work, the introduction of lateral integrative mechanisms and necessary coordination. In a broader sense, they represent the core of doing business in the organization through which outputs are produced (Hernaus, 2008, pp 10).

Characteristics of successful business process are as follows:

- each process has a purpose,
- each process has an owner,

- each process has the beginning and the end,
- inputs enter the process and outputs come out of it
- the process is composed of sequentially performed activities,
- based on the inputs and outputs of the process it is easy to determine the successfulness of the process,
- in order to survive the process should have both, end-users and suppliers known,the process should be aimed at end-users,
- outputs of the process should constantly provide a new value,
- the process should have a competent process owner,
- the process must have a setup of measures of successfulness and effectiveness.

Characteristic of managerial business processes is that they are important for the operation of both, core business processes and support processes. It is common to call managerial processes vertical, with regard to their relevance, comprehensiveness and direction of their activity. These are the most common processes in the development, planning, resource security and management structure of the organization and are closely linked to the organizational structure. Metaphorically speaking, if the structure is the skeleton of the organization, then the governing processes are its bloodstream. They can be vertical and horizontal, and they determine the process of formulating the goals and strategies and the way they cascade on the lower levels of the organization. Managing processes also includes issues related to decision-making, management styles, communication, and ways to implement controls, monitoring of work performance and knowledge management. Practically, it can be said that this organizational element unites all other elements, but it is also simultaneously present in them all. It is actually responsible for coordinating and directing all other organizational elements. Managing process is imbued throughout the organization and ensures the smooth functioning of the system. Because of this, they represent one of the most challenging and important organizational elements.

Core business processes are characterized by focusing on end-users satisfaction by directly adding new value to the product or service. The function of the core business processes to fulfill end- user requests and generate their satisfaction. Product or service as the final output of the entire business process receives its confirmation in the market. They are often called horizontal business processes, due to the need for integration of plans and products through the flow of a business process.

The difference between the core business processes and support process is in focusing on the creation of end-users satisfaction within the organization itself, which is one of the main characteristics of the support process. Support processes create added value for the end user, but in an indirect way. It is the support process, whose main role is to meet the needs of core business processes. Processes that enable the execution of operational processes are called support processes, and include technological, human and financial support.

1.2 Characteristics of Business Process Management

"... the main idea of BPM is to make three people angry, because if they do not get angry, then there is no development ... " (Hammer quoted by Brabander, 2007, pp 3)

Business Process Management is a systematic approach to managing and improving the work within an organization with the active, coordinated management of all aspects of the specification, design, implementation, analysis and optimization of business processes to effectively and efficiently achieve their business goals (Davis and Brabander, 2007, pp 7).

Mendling (2008) defines BPM as a series of management activities related to business processes. By analyzing different approaches to defining BPM we come across repeated terms that are characteristic for describing the concept of business process management. They are: achievements, organization, goals, progress, management, supervision, basis, business and processes. The mere application of BPM ranges from strategic to the individual goals of each process so that it can be said that BPM itself is not a goal but a way to achieve some goals. Applying BPM must have an impact on business activities in a way that brings benefits to improve business results, and it must focus on the core processes.

One of the common mistakes is mistaking business functions for business processes. Business processes are by their nature mediation, in other words, they comprise more functions. Functions are specific for certain departments that are focused on some skills or knowledge. The most common examples are the production, sales, human resources, finance, etc.

There are three major trends that characterize business processes, they are (Davis and Brabander, 2007, pp 10):

- automation,
- integration and
- lifecycle management.

It is easy to come up with the idea, but the problem is to make a real thing. Authoritative leadership can only achieve for the ideas to get lost or not to be implemented the best possible way. During the development of the concept of business process management, it is possible to see the transition from mechanical to semi-bureaucratic management teams that require a large number of managers and ordinary workers who are practically trained and prepared.

The initial focus of BPM was the automation of business processes using information technology. During BPM implementation, technology is often used in a wrong way. If it is only taken into consideration what technology can do instead of really doing it, then the main point was misunderstood. Human resources and processes are key elements of BPM, and the technology enables support in the execution of the planned objectives. It is important to implement BPM gradually and starting from one of the projects within the organization. For efficient implementation of the concept of BPM concept within the organization it is preferable to engage outside consultants and then organization must be prepared to further develop and improve existing skills and experience of the available human resources. Implementing BPM affects the business in a way that it creates a new value on the field, which is the goal of the organization's operations. BPM should be perceived as a tool that allows us to understand the organization through an expanded view composed of interconnected processes. It can be said that the BPM, is in fact, an approach allows the integration of changes of capabilities of an organization using human and technological

resources. BPM is much more than software, more than improvement of the business process management, more than modeling, it deals with the items of management. Today, BPM is used by many, especially those who believe that technology is the only solution for the improvement of business processes, which means continuous development and improvement of IT in the enterprise.

2. Business processes and performance

Analyzing the performance indicators of business processes and grouping them into two groups, related to internal and external criteria, one can understand the organization's ability and management capacity. In order to further explain the importance and impact of performance indicators of business processes, they will be briefly explained in this part of the paper. They include:

- Process costs - each business process to perform the operation requires engaging multiple resources, which is simultaneously the cost as well. Resources of business process can be divided into three groups: inputs, capital resources and human resources. When consumption of resources, in order to create new, marketable products and services, is quantified and expressed by a unit of measurement, it is referred to as costs. In order to obtain new value, it is essential to use certain resources, which substantially take part in design and manufacture of a new product as support or as core actors of the production process.

- Process (cycle) time - if time is seen as a resource, its main feature is that it is irreversible and transient, meaning that time is a non-renewable resource, which is the most scarce of all resources. Problem of its irreversible transience presents a challenge that has led to the knowledge of the importance of studying the method and operating time, so its rational use can be considered a source of competitive advantage. Cycle time or process time represents the time that elapses from the moment the unit enters the flow of the process till the moment it comes out of it. That means that it is time within which to the transformation of inputs into outputs, is performed i.e. "real time required for the transformation of inputs into outputs" .

- Financial performance, which arises from the traditional accounting and financial measures, usually including sales volume, profits, net present value, cash flow and return on investment, assets, etc. Indicators of financial performance include overall business results of organization, that are available from publicly available information on business of organizations.

- Different non-financial performance indicators, out of which, we focused on measuring end-users satisfaction by using the model Szwarc talks about. It is based on three key elements by taking into account the perception of product quality, service, the manner in which customer complaints are managed and customer satisfaction with recent points of contact with the company.

Performance is usually measured by Key Performance Indicators (KPIs), which indicate critical values, which need to be realized by business processes. Our empirical research has analyzed the results of business processes and their changes in large Croatian enterprises.

3. Results of empirical analysis

The research was conducted by a questionnaire, which analyzed business processes, changes of business processes and business process performance at 76 large Croatian companies. Large organizations were selected according to the classification of Croatian and international accounting standard-s.

Table 1. shows that forms of the legal entities are equally split between limited liability and proprietary companies. It was expected when large companies are considered.

Table 1. Distribution of the companies according to the legal form

Legal Form	Count	%
Proprietary Company	75	50,0
Limited liability Company	75	50,0
Total	**150**	**100,0**

Source: research

As much as 76% surveyed companies were privately owned, as indicated in Table 2.

Table 2. Distribution of the companies, according to the ownership

Private owned companies	Count	%
Yes	114	76,0
No	36	24,0
Total	**150**	**100,0**

Source: research

Indication that only 20% of the companies have foreign owners implies a probability for relatively low involvement of their best practices (Table 3.).

Table 3. Distribution of the companies according to the origin of the ownership

Foreign owned companies	Count	%
Yes	30	20,0
No	120	80,0
Total	**150**	**100,0**

Source: research

Surveyed companies are mostly engaged in core businesses, with a low level of differentiation, which will be reflected in relatively simple structures, without complex or innovative organizational forms (Table 4.).

Table 4. Distribution of the companies according to differentiation

Type of business	Count	%
Single business	59	39,3
Core business, some differentiation	65	43,3
Related differentiation	20	13,3
Unrelated differentiation	6	4,0
Total	**150**	**100,0**

Source: research

Table 5. Distribution of the companies according to the type of organization

Type of organizational structure	Count	%
Functional	63	42,0
Divisional	19	12,7
Matrix	18	12,0
Process	45	30,0
Network	5	3,3
Total	**150**	**100,0**

Source: research

It is important to emphasize that already 30% of the surveyed declared process organization structure what implies a high level of understanding the importance of the business processes in the economy where functional division is applied traditionally. However, it is also important *how business processes are managed, i.e. what are the characteristics of Business Process Management (BPM),* what is analyzed in the following paragraphs.

The majority of the employees considers their understanding of BPM concept as „high“ and „very high“ (58,6%) while one third of top managers (33,3%) grade the employee understanding of BPM as medium (Table 6).

Table 6. Understanding of BPM concept by employees (as assessed by top management)

Answer	Frequency	%
Low	12	8,0
Medium	50	33,3
High	83	55,3
Very high	5	3,3
Total	**150**	**100,0**

Source: research

This element is quite satisfactory. Results presented in Table 7. confirm the previous finding, as only 9,3% of responding managers consider education level of their employees as low.

Table 7. Managers' perception of the adequacy of the employees' education (as related to BPM)

Answer	Frequency	%
Low	14	9,3
Medium	58	38,7
High	74	49,3
Very high	4	2,7
Total	**150**	**100,0**

Source: research

Teamwork in the existing business processes is also relatively highly appreciated by the management, as shown by Table 10.

Table 8. Teamwork in existing business processes

Answer	Frequency	%
Low	2	1,3
Medium	95	63,3
High	50	33,3
Very high	3	2,0
Total	**150**	**100,0**

Source: research

Table 9. Business processes performance achievements graded on scale 1-5

Question	Min.	Max.	Mean	Stand. deviation
Cost performance achieved by existing business processes.	2	5	3.73	0.598
Income efficiency gained by existing market related business processes.	2	5	3.63	0.574
Time efficiency of performing business processes.	3	5	3.51	0.588
Process dynamics (effect/time unit)	2	5	3.42	0.559
Adequacy of inventories within present business processes.	1	4	3.33	0.596

Source: research

4. Conclusion

Results gained by this research indicate balanced answers. Research indicates that, despite of only 20% surveyed companies being foreign owned and 82.6% being differentiated, only 30% of responding companies have introduced the process-based organizational structure. It is also encouraging that employees' grade high to very high appreciation of the BPM at 58.6% is balanced with managers' perception of the importance of their education level at 52%. Simultaneously, the perceived importance of team work (35.3%) corresponds with implementation of process organization (30%). **The perceived performance of BPM is average, with only cost performance and income efficiency being assessed higher than average.**

Presented perception of the influence of the BPM to costs, income efficiency, time efficiency, process dynamics and inventories' adequacy also indicates acceptable choice of indicators for future research, which will confirm or deny these expectations. Those will have to be correlated with KPIs, as well in order to show and analyze trends with process-based organizational changes.

5. Literature

[1] Bosilj Vukšić, V., Hernaus, T., Kovačić, A., *Business Process Management*, Školska knjiga, Zagreb, 2008

[2] Buble. M. et al., *Influence of organizational variables on the success of the program to improve business processes*, Faculty of Economics Split, Split, 2010

[3] Davis, R., Brabander, E., *ARIS Design Platform-Getting Started with BPM*, Springer, London, 2007

[4] Hernaus, T., *Foundations of organizational design, a series of articles in the making 09-08*, University of Economics Zagreb, 2008

[5] Mendling, J., *Metrics for Process Models,* Springer, Berlin, 2008.

[6] Davis, R., Brabander, E., *ARIS Design Platform-Getting Started with BPM*, Springer, London, 2007

[7] Szwarc, P., *Researching Customer Satisfaction & Loyality*, MRS, London, 2005

EFFECTIVE HUMAN RESOURCES MANAGEMENT AND PERFORMANCE OF ENTREPRENEURIAL BUSINESSES IN TRANSITION COUNTRIES: THE CONTEXT OF MACEDONIA

Selajdin Abduli, PhD
Faculty of Business and Economics,
South East European University, 1200 Tetovo, Macedonia
E-mail: s.abduli@seeu.edu.mk

Abstract

Human resources management functions, practices and procedures nowadays are very important and their role is continuously increasing if we consider an economy which relies ever more on knowledge. In this way, necessarily arises the need for careful management in the allocation and use of this labor force, not only in fulfilling the vacancy, but it is even more important to achieve and ensure increased efficiency of its use in the production process of goods and services that guarantee the growth of welfare or the level of living standard of society members.

Human resources play an important role in achieving the goals of the enterprises. The careful management of labor force creates good opportunities in ensuring its efficiency in the process of production of goods and services that guarantees the welfare of the society. The survival of every enterprise is dependent on the effective management of human resources.

The evaluation and performance management of employees has impact on the increase of the effectiveness of the enterprise. The effective management of an enterprise needs to focus on reforms of educational system and professional development of its workers. Things like that need to make designs of programs and effective policies on the labor market creating of an efficient system of information in the labor market and overtaking steps of growing and development of an enterprise.

The literature review on this topic in this article is supported by the empirical analysis, in which 150 businesses in the Republic of Macedonia are surveyed.

Keywords: *Human resource management, effectiveness, entrepreneurial businesses, performance, Macedonia*

1. Introduction

Human resource management constitutes an important area in achieving strategic goals for the country's European integration. Such a perception, in an imperative way raises the necessity of managing or effective use of them. In addition, human resources currently constitute one of the main sources of production, which will enable the growth of firm performance, respectively increasing the efficiency of human resources usage. What is difficult for such an enterprise is creating challenges in the field of management in general

2. The Role of Human Resources in Businesses

HRM is concerned with all aspects of employment and management of people in organizations. HRM covers the following activities: strategic human resource management, human capital management, corporate social responsibility, knowledge management, organizational development, securing resources (human resource planning, recruitment and selection, and talent management), management performance, learning and development, compensation management, employee relations, employee welfare, health and safety and the provision of services for employees.

HRM practice has a strong conceptual basis borrowed and based on the science of organizational behavior and strategic management, human capital and theories of industrial relations. This database was built with the help of a large number of research projects by different researchers in the field of management.

Among others the author Ronald R.Sims says "The key to a continued survival and successful organization is not rational or quantitative approaches, but differs significantly in activities of employees and managers that are based on the support and mutual loyalty. The success of the organization today and tomorrow is being seen more and more dependent on the effectiveness of human resource management" (Sims, 2002, p.1).

HRM is a strategic, integrated and coherent approach to recruitment, development and welfare of the people working in organizations. To create better insight about what actually represents human resource management, some aspects of the definition include: Aspect ratios of the company with the workers. Human resource management involves all management decisions and actions that affect the nature of the relationship between the organization and its employees its human resources. HRM also has to do with the management of the workforce in organizations (Wright and Snell, 1997).

HRM includes a set of policies designed to maximize organizational integration, employee commitment, flexibility and quality of work, or working and people management in achieving desired goals. Strategic aspect of the action. According to this aspect of HRM has to do with human resources policies, which should be integrated with strategic business planning and used to reinforce an appropriate organizational culture (or to change an inappropriate one). Human resources are the source of competitive advantage, because they can relate more effectively by mutually consistent policies that promote commitment and, therefore, are able to feed to the employees a willingness to act in a more flexible way in the interest of pursuit of excellence "appropriate for the organization." Moreover, the management of human resources is a particular method of employment management which seeks to achieve competitive advantage through the strategic development of a workforce more dedicated and capable, using a variety of techniques integrated cultural, structural and personnel (Boxall et al., 2008; Legge, 1989).

The overall goal of human resource management is to ensure that the company will be able to achieve success through people. HRM aims to increase the effectiveness and organizational skills, which means the ability of an organization to achieve its goals using the available resources in the best way possible. Some authors in their studies have found that HRM systems can be the source of firms' organizational capabilities that allow one to learn and benefit from new opportunities. But HRM has an ethical dimension, which also means that one should be concerned for the rights and needs of people in organizations through the exercise of social responsibility (see: Beer et al., 1984; Grimshaw and Rubery, 2008; Guest, 2008; Storey, 2007; Ulrich and Lake, 1990).

Dyer and Holder (1988) analyzed the objectives of human resource management from a different perspective, taking into consideration the given input concept (what kind of behavior is expected of employees?), the composition (what is the percentage of staff and skills mixture ratio?), the competence (what is the overall level of desired capacity?) and the commitment (what is the level of engagement and identification of employees?).

3. The role of Human Resources Professional

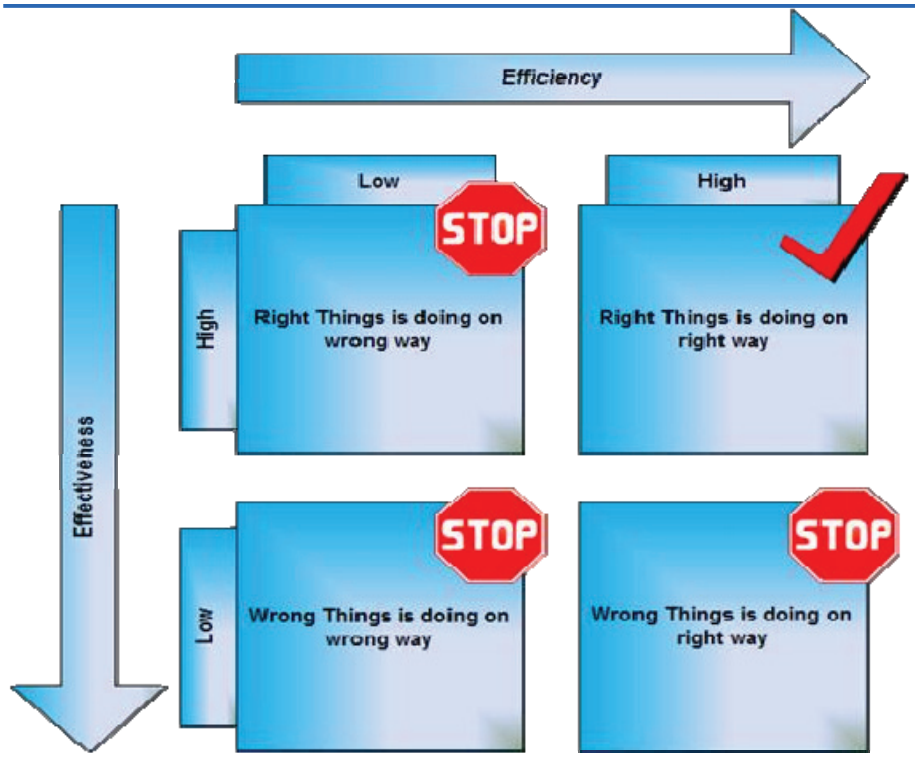
For small and medium size enterprises for which are impossible to have a special department of human resources management, a specific role can play professional or human resource specialist. Human resource professional necessarily should be a person who possesses strong will. What exactly he should do for the company to compete in the market? Ironically, today, more than ever, the company needs the presence of such a professional.Why? Because, in today's market companies compete not only by increasing production, but also by increasing services and quick responding to the demand of the territory. The company should be fast, flexible, focused and friendly. One such company can be possible through the creation of organizational culture, which highlights the above stated qualities and the best of its employees.

Today, a modern human resource professional should have the knowledge necessary for the organization. Professional knowledge and skills of human resource professional assist the organization in creating a culture of performance, which influences the competitive advantage of the company - human resources. It is impossible to ensure quality service, quick response to changes in market demand and encouraging progress with a completely unmotivated workforce. Human resource professional’s role precisely consists the following: help top- managers to identify management practices that are consistent with human nature in order to achieve their best. Also enables harmonization of individual goals with the goals of the organization.

4. *Efficiency and effectiveness of human resources and the ratio between them.*

Although the literature in the field of human resources and in general management concisely describe the content and meaning of words efficiently and effectively in everyday life are often referred to as synonymous, respectively made use of their right blend. This reflects the need for clarification of the terms efficiently and effectively.

Efficiency means qualitatively high results achievement, with minimal use of resources and in the least time possible. Efficiency means to act in such a way that does not misuse resources. Managers are efficient in their work when they invest funds and do not leave their jobs or when receiving monetary funds with a small interest in the bank; when there is almost always plans to put people to work in every situation, or to use it information rationally which has certain resources spent.



Source: http://www.entrepreneurshipinabox.com/394/efficiency-and-effectiveness-matrix/

Figure 1 – Effectiveness and Efficiency

Put simply, effectiveness refers to doing the right things, whereas efficiency refers to doing things properly.

Effectiveness is the ability to select appropriate goals and means for their achievements. Effectiveness means doing things that should done properly at the right time. For effectiveness, Drucker noted that "The point is not to make things right, but how to find the right things to do and then concentrate forces and tools to them" (http://tsg3.us/tnsg_lib/pldc_school/off_basic/st_7000_ materials/ lesson_3.pdf).

In Figure 2 we have shown graphically the relationship to efficiency and effectiveness or their possible exchange.

As shown in the figure there are four logical results that take into account effectiveness and efficiency. In quadrant I, we see high effectiveness and low efficiency, in quadrant II we see high effectiveness, and high efficiency, in quadrant III we see low effectiveness and low efficiency, in quadrant IV we see low effectiveness, and low efficiency. The logical interpretation of these possibilities, depends on the relative importance given to efficiency and effectiveness.

There is no doubt that effectiveness is much more important than efficiency, despite the fact that both of these are desirable. If it is accepted, it is seen that quadrant I (effective, but inefficient) in the figure is a better place than pane IV (efficient but ineffective). The more efficient use of available resources that the business enterprises, in an effort to be effective, the more profitable it will be. In the ratio of efficiency-effectiveness, undoubtedly the dominant is effectiveness.

Thus, an enterprise can be very efficient in producing a product, but the market has low demand and high demand for another product that another company produces, but its production is

not very effecient. In this situation, the first company managers are not effective in their work and this will be reflected in the balance of its sales will provide a range of other negative consequences. As Drucker has said, "although efficiency is important, effectivness is vital," is the final comment that may be the issue (http://www.dailyblogtips.com/effective-vs- efficient-difference/).

There are a number of factors that increases the effectivness in work, among which the most important is to identify talent within the company. There is a very large financial and time cost to recruit young people. There is also a need to develop talent within the company and put the right people in positions where they can do their best.

There should be a defined career program for company employees who serve to enhance their performance at work, for higher motivation, a greater responsibility in their assignment and duty to serve as an external impetus to the fulfillment of their aspirations.

Another important factor is to improve the conditions of employees and being updated with new technological changes. Also ensuring financial sustainability is a very big boost to the effectivity of the employees. Moreover, another important factor to raise effectivity is by providing premiums and various awards in relation to the performance of the data or promotions in the form of increased duty to motivate more employees. Other strategies include increased employee self evaluation for himself and for the company where he works and allow to development of social ties within the enterprise.

Satisfaction in the workplace has a correlation to effectiveness of employees, and thus the more satisfied employees are in the workplace, the more effective they will be as employees. Training will be offered to employees in the workplace or outside it are also key factors for increasing work efficiency. Training in the workplace is more pleasurable after employee adoption of the work process, becoming simple, and thus will not encounter major problems.

In the Republic of Macedonia as in many other places, communication plays a major role and is definitely one of the key elements in increasing work efficiency. When guidelines and instructions of communication are clear, understandable and specialized, employees have a better notion of behavior. Work efficiency and employee motivation will increase depending on how democratic and liberal leaders of companies will be. The leader must be simoultaneously a visionary and not just think about the present or the near future but for the longterm, since this effects employee safety and conformity.

It is worth mentioning that the practices, procedures, processes and human resource management functions in most SMEs are not applicable, although it is known that individuals within the company are the most important source of production in the enterprise. Like all other resources an employee in the enterprise: 1)is an asset, 2) is limited in supply, 3) can increase its value over time, and 4) can make competitive differentiation between different enterprises.

5. Performance Management and Evaluation

In this issue is described the nature, purposes, characteristics, problems and principles of performance management. Also, differences between performance appraisal and its management are reviewed, referring to the views of an intern focus group.

Work performance management can be defined as a systematic process of improving company's performance through a better labor organization with individuals and work groups. It is

a way by which companies, labor groups and individuals achieve higher results at work by understanding and managing them within a clear purposes platform of standards and competencies.

Processes that work performance management includes require a comprehensive understanding on what the company should achieve. These processes also require commitment and motivation of employees in order to reach short and long-term objectives. Performance management is implemented and managed by line managers. Following, we will give some other definitions for performance management such as:

- ✓ Performance management implies transformation of individuals into skillful employees, committed to achieving common objectives within a company, which supports and encourages these achievements (Lockett, 1992).
- ✓ To manage performance, means to manage the business (Lockett, 1992).
- ✓ Performance Management is the process of "managing and supporting workers who are committed to meet the needs of the company" (Walters, 2009).
- ✓ Performance management is a strategic and comprehensive tool, which brings achievement to companies, improves employee's outcomes and develops the skills of working groups or individuals (Armstrong, 2009).

The main purpose of performance management is fostering high culture on work, so that individuals and special working groups take responsibilities to improve business processes, as well as develop skills and contributions of everyone within the clearly defined platform by the governing group. The main purpose of this management is to perform the actions necessary to achieve the objectives.

The purpose of this management is to increase the contribution at work in order to reach and exceed targets, at the same time it aims to ensure maximum efficiency of each individual, a factor that would serve him and the company. Following are some of the goals of performance management in several companies (IRS Employment Trends, 2003):

- ✓ Authorisation, motivation and remuneration of employees to do their best.
- ✓ Concentration of employees in proper activities and necessary guidance to implement them successfully. Approximation of every employee goals with company goals.
- ✓ Active administration and development of work performance against the responsibilities and objectives taken.
- ✓ Liaison of performance with the results achieved by the company's medium-term strategies and customer service.
- ✓ Approximation of individual goals with plans of the working group, department and company. Presentation of objectives with clearly defined goals, using numerical methods or other methods. Monitoring performance and continuous determination of tasks.
- ✓ Everyone is aware of what it needs to be achieved and the expected standards. At the same time knowing how these standards help in the company's achievements, they

regularly receive accurate feedback; receive training and motivation to work as better as they can, in order to achieve their goals.

- ✓ Systematic intervention of leaders in performance planning approximates individual liabilities with their goals and activities.
- ✓ The process and the way how managers manage their employees' performance, affects the company in achieving higher results.
- ✓ Increasing the performance of each employee and labor groups, always focusing on their objectives.

6. Research Methods

In order to measure the above stated objectives, specific research methods have been utilized. The paper focuses on a theoretical and descriptive analysis, comparative and synthetic methods for the purpose of identifying and analyzing the factors that determine the need for changes in human resource management. Moreover, the paper uses the following methods: the method of induction and deduction, surveys through interviews and questionnaires, and comparative methods to illustrate the above mentioned analysis.

The paper will be based on the results of the survey conducted in human resources in all regions of Macedonia. The survey includes 150 SMEs that operate in the whole territory of Macedonia.

Methods that are used for data processing include crosstabulation of variables. By using the statistical program SPSS, crosstabulation allows gathering information of the relationship of multiple variables. In addition, a regression analysis is conducted, allowing the identification of relationships between variables. A correlation method will be used to determine how and to what extent the two variables are related in a linear fashion. Also, in the framework of statistical techniques will be used Anova test to distinguish between different groups within the population, as well as T-test, which is the same anova test, but there are only differences in the method of calculation.

7. Analysis of Results of Research

The survey included 150 SMEs and was conducted during the period 15 May to 22 July 2011 by utilizing a team of colleagues, friends and students of the Faculty of Business and Economics within the South East European University. The research was carried out using the technique of direct contact with respondents, by mail and email. Direct interviews polled 96% of companies, while 3% (5 companies) of the respondents were contacted via postal mail and only 1% (2 companies) via email

H1. There is a link between employee involvement in developing the strategy and effectiveness in the enterprise.

Table 1 - Involvement of employees in the development of the strategy and effectiveness of enterprise

	2006		2007		2008		2009		2010	
Effectivity	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Decrease	50 1.5	50 1.5	80 3	20 0.7	0 0	100 5	26.3 3.6	73.7 10	35.7 6.9	64.3 12.5
Constant	50 19.2	50 19.2	48.8 15.7	51.2 16.4	52.4 23.7	47.6 21.6	60.3 27.1	39.7 19.9	64.4 20.1	36.6 11.1
Increase	51.3 30	48.7 28.5	51.2 32.8	48.8 31.3	56.5 28.1	43.5 21.6	51.7 21.4	48.3 20	49.3 24.3	50.7 25.0
Total	50.8	49.2	51.5	48.5	51.8	48.2	52.1	47.9	51.4	48.6

H3. Increased employee performance increases the effectiveness of the enterprise.

Table 5 – Employee Performance and effectivity of the enterprise

	2010		2009		2008		2007		2006	
	Have labor force skills increased in your enterprise during the last 2 years?									
Efficiency	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Decrease	85,2% 17,0%	14,8% 40,0%	85,0% 13,0%	15,0% 30,0%	71,4% 3,8%	28,6% 20,0%	80,0% 3,2%	20,0% 10,0%	100,0% 3,3%	,0% ,0%
Constant	95,7% 33,3%	4,3% 20,0%	93,7% 45,0%	6,3% 40,0%	95,2% 45,4%	4,8% 30,0%	95,2% 32,0%	4,8% 20,0%	94,1% 39,7%	5,9% 30,0%
Increase	94,4% 49,6%	5,6% 40,0%	94,8% 42,0%	5,2% 30,0%	93,0% 50,8%	7,0% 50,0%	92,0% 64,8%	8,0% 70,0%	90,8% 57,0%	9,2% 70,0%

During research conducted in order to see the link between growth performance and effectiveness of enterprise employees, the results show that, on average in the past five years only 8% of companies that had improved skills of their employees have had reduction in their effectiveness, compared to 20% (average of five years) of companies which had not improved skills of their employees, have marked reduction in effectiveness. As far as increasing the effectiveness, the results have shown that, on average, 93% of enterprises which have seen an increase in the performance of employees, have noticed an increase in effectivity, compared with only 7% of companies that have not increased performance, but have noticed an increase in their effectiveness. By analyzing the results we can conclude that we can accept the hypothesis above that there is a strong positive relationship between performance and effectivity of the enterprise.

During research conducted in order to test the hypothesis that a relationship exists between undertakings having special sector HRM and enterprise efficiency, the results show that companies that had a particular sector of the HRM, in five yearshave recently increased the average efficiency of 73.8%, while companies that had no sector specific HRM was observed to have increased an average of 26.2%.

H4. There is a connection between having a particular sector HRM and effectivity

Table 6 – HR Sector and Effectivity in the Enterprise.

	2010		2009		2008		2007		2006	
Effectivity	A	B	A	B	A	B	A	B	A	B
Decrease	25,9% 18,4%	74,1% 18,7%	31,6% 16,7%	68,4% 12,4%	,0 % ,0 %	100,0% 6,7 %	20,0% 3,0 %	80,0% 3,9 %	,0 % ,0 %	100,0% 4,0 %
Constant	68,1% 29,9%	31,9% 39,5 %	78,1% 47,6%	21,9% 38,9%	75,8% 44,8%	24,2 % 42,9 %	79,1% 33,3%	20,9% 27,3%	19,6% 33,3%	80,4 % 40,6 %
Increase	77,5% 51,4%	22,5% 42,1%	72,4% 40 %	27,6% 44,4%	71,8% 48,6%	28,2 % 57,1 %	73,6% 62,7%	26,4% 69,7%	26,3% 66,7%	73,7 % 55,4 %

a.There is a special person and / or unit responsible for the human resources sector

b. The task performed by the owner / manager of the company

Meanwhile, the decline in the effectiveness had 15.5% of the enterprises that particular sector HRM compared to companies that do not have specific sector HRM, where 84.5% of the enterprises have reduced the effectiveness of them. From the above data we can conclude that there is a positive correlation between the possession of a special department of human resources and effectiveness in the enterprise, where we can conclude that the hypothesis is accepted.

8. Conclusions

By examining the data, we can conclude that there is strong correlation between the involvement of employees in the development of the strategy and effectiveness of the enterprise, which, from the outset presented a dilemma

When analyzing the data on empirical research carried out in the enterprise, it is observed that there is a connection between an increased employee performance and effectiveness of the company. While, in terms of increased effectivity, the results have shown that on average 93% of the enterprises which have increased employee performance, also, have noticed and increase in effectivity compared to only 7% of companies that have not had performance increase observed increase in their effectivity

According to the survey, we also conclude that there is a connection between those enterprises that have an HR sector and effectiveness of enterprise. From the above data we conclude that there is a positive correlation between having sector specific human resources and effectiveness in the enterprise.

Bibliography

1. Armstrong, M. (2009), Armstrong's Handbook of Human Resource Management Practice, 11th edition, Kogan Page, London.
2. Beer, M., Spector, B., Lawrence, P.R., and Mills, D.Q. (1984), Managing Human Assets, The Free Press, New York.
3. Boxall, P., Purcell J., and Wright, P. (2008), Oxford Handbook of Human Resource Management, Oxford University Press, Oxford.
4. Dyer, L. and Holder, W.G. (1988), Strategic human resource management and planning, in L. Dyer (ed), Human Resource Management: Evolving roles and responsibilities, Bureau of National Affairs, Washington DC.
5. Grimshaw, D., and Rubery, J. (2008), "Economics and HRM", in P.Boxall, J. Purcell and Patrick Wright (eds), Oxford Handbook of Human Resource Management, Oxford University Press, Oxford.
6. Guest, D.E. (2008), From Industrial Relations to Human Resource Management: The Changing Role of the Personnel Function, National Institute of Economic and Social Research Discussion Paper, No. 315.
7. Koli, Z. and Llaci, S. (2005), Manaxhimi i Burimeve Njerëzore, albPAPER, Tiranë.
8. Lockett, J. (1992), Effective Performance Management, Kogan Page, London
9. Legge, K. (1989), Human resource management: a critical analysis, in John Storey(ed), *New Perspectives in Human Resource Management*, Routledge, London.
10. Sims, R.R. (2002), *Organizational Success through Effective Human Resources Management*, Quorum Books, Westport.
11. Storey, J. (2007), *Human Resource Management: A critical text, 3rd edition*, Thompson, London. Ulrich D., and Lake, D. (1990), *Organizational Capability: Competing from the inside out*, Wiley, New York.
12. Wright, M.P., and Snell, S.A. (1997), Towards a unifying framework for exploring fit and flexibility in strategic human resource management, *Working paper 97-13*, Cornell University.
13. Walters, M. (2009), *The performance Management handbook*, Jaico Publishing House, London.
14. Mohpman, A. and Mohrman, S. (1995), Performance management is running the business, *Compensation and Benefits Review*, July-August, 1995.

THE IMPACT OF COSTS ON CREATING A COMPETITIVE ADVANTAGE

MSc Dragana Došenović[192]

Abstract

The main theme of this paper is the process of creating a competitive advantage, with a special focus on costs as a possible source of competitive advantage. The strategy of cost leadership can place the company with the lowest costs in the industry in a privileged position. For this reason, the purpose of this paper is to analyze and describe the type and intensity of the connection between costs and competitive advantage, but also to describe the role and importance of the value chain.
As the value chain is very important for strategic management, this paper will present the importance of this tool created by Michael Porter. Using value chain for analysis of all activities carried out by the organization many companies have numerous benefits. These advantages indicate that observed tool enables the identification of different places in the organization where competitive advantage can be created through cost reduction.
Based on the conducted analysis and research, author of this paper has come to many conclusions on the basis of which has been proven that lowering costs positively influence the creation of competitive advantage which confirms the assumption set in this paper.

Keywords: *competitive advantage, costs, differentiation, strategy, value chain*

[192] University of Banja Luka, Faculty of Economics, Majke Jugovića 4, 78000 Banja Luka, Bosnia and Herzegovina, e-mail: dragana.dosenovic@efbl.org

Introduction

Nowadays the business of modern enterprise largely depends on the environment, its stability or instability, as well as various opportunities and threats that come from it. If an enterprise wants to achieve its objectives in terms of increased market instability, the choice of strategy is essential. It is necessary to create and sustain competitive advantage using the chosen strategy. Competitive advantage gives the company a privileged position in relation to other firms in the market. There are two types or two sources of competitive advantage, such as: low cost and differentiation. This paper describes the influence of low costs on creating a competitive advantage. One of the means by which the company can identify different ways to create greater value for consumers and thereby to create competitive advantages is the value chain that can be defined as a set of related activities that are performed within a single business unit.

The problem studied in this paper can be defined as precisely formulated question: whether and how costs affect the creation of competitive advantage? Defined research problem is economic in nature and is studied in the field of strategic management. The aim of this paper is to analyze and show the type and intensity of the connection between costs and competitive advantage, but also to describe the role and importance of the value chain. The main hypothesis of this study is the assumption that lowering costs positively influence the creation of competitive advantage.

This paper is composed of two parts. The first part explains the concept, role and importance of competitive advantage, as well as types that exist. It also describes the impact of the costs on creating a competitive advantage. The second part of the paper is dedicated to the value chain, its role and importance. A way of analyzing the strengths and weaknesses of companies using this tool is also presented.

1. Competitive advantage

1.1. Concept, role and significance of competitive advantage

If someone wants to describe with one image the conditions of modern markets, and the role and importance that competitive advantage has on it, just a few words are enough. It can be said that owning a competitive advantage means the same as having a gun in a knife fight.

To explain the concept of competitive advantage it is necessary to start from the environment in which the company operates. Nowadays the business of every company is related to a particular industry which also represents the most important segment of its environment. In this way, the industrial structure has a great impact on the company and its success in carrying out certain activities. Safe key to success of any enterprise is a sustainable competitive advantage which generates favorable industry position of other industrial competitors and market participants (Tipurić, 1999, p. 2). Achieving and maintaining favorable position depends on the industrial structure, which has a decisive influence on the choice of competitive games and strategic solutions of each company. Therefore profitability as a basic feature of competitive advantage depends not only on strategic activities, but also of the industrial structure. Will the profitability of the business be short-term or long-term depends on many internal and external factors.

Competitive advantage enables organization to better cope with market forces and forces from the environment, with the aim of achieving a more favorable position compared to the competition. It could be said that the competitive advantage relates to the ability of the company that clearly distinguishes the organization from its competitors. This ability allows the company distinct advantages in the market. If we observe a certain company, it can be said that the company has an advantage if its capacity exceeds the capacity of the strongest competitor by buying criterion. In order to achieve such a competitive advantage, the company needs to find aspects of differentiation

that target consumers perceive as superior value, which competitors cannot copy. There are several sources to create competitive advantages which are presented below.

1.2. Types of competitive advantage

The issue of competitive advantage dealt with the scientist Michael E. Porter. He believes that the basic question of competitiveness is relative position of the company compared to the industry in which it operates. By analyzing the industrial position in which the company is it is possible to determine whether the company is above industry average profitability, or even underneath it. Favorable industrial position is possible to achieve with competitive positioning which in the long run leads to above average industry profit.

In order to analyze certain industries and thus explore its advantages and disadvantages, Porter devised a model of five competitive forces. This model is based on the assumption that long-term profitability of the industry and the companies that operate within it depends on the influence of next five competitive forces (Mašić, 2007, p. 182):

- The rivalry between companies operating within the industry,
- The existence of companies that are ready to enter the market,
- Moving customers to substitutive products,
- Bargaining power of buyers,
- Bargaining power of suppliers.

Basic profit potential of the industry depends on the joint strength of these five competitive forces. On the basis of these can be seen distinctions between specific industries. Thus, the profitability of the industry will be greater if the industry has a stable competitive structure, more favorable position to suppliers, customers and industries of substitutes, but also the lower risk of entry of other companies. Conversely, if the industry has a variable and not defined competitive structure, weaker position in relation to suppliers, customers and industry substitutes, as well as the existence of a high risk of entering other companies, industry profitability will be lower.

By analyzing the structure of the company a better understanding of the real strengths and weaknesses, as well as building framework for positioning the company in the industry can be achieved. This allows users to identify areas where strategic changes had the greatest cost-effectiveness, but also to identify factors that industry trends highlight as opportunities and threats for the company.

In order to achieve sustainable competitive advantage a company needs to clearly define and explain one of the main strategic goals which is finding positions in the industry where the company can best defend itself against competitive forces and where it can best influence these forces with the realization of long-term benefits. If there are above average results in the industry in the long term that are not the result of unusual market conditions, they are tied to the existence of a competitive advantage.

According to Porter (Porter, 1985), there are two types or two sources of competitive advantages, including:

1. Low cost,
2. Differentiation.

Competitive advantage is accomplished through the supply of equal value delivered to customers at a lower costs than other industrial competitors (the advantage of low costs) or by providing greater value to customers with an average industrial costs (differentiation). In order to achieve a competitive advantage it is necessary to decide on the type of competitive advantage which the company wants to create, and then to select a market area where the company wants to

service its customers. Thus the company will gain a competitive advantage if it is more successful than the competitors in the defense of the competitive forces which implies successfully attracting customers and persuading them that the products have superior value. So the company needs to have a better offer of good products at a low price or to offer a product that has a higher real or perceptual value for customers that are willing to pay premium prices. The following figure shows the relationship between these two types of competitive advantage.

		The relative cost position	
		Inferior	*Superior*
The relative position of differentiation	*Superior*	**Differentiation advantage**	**Differentiation and cost advantage**
	Inferior	**No advantage**	**The advantage of lower costs**

Figure 1. The competitive advantage of enterprises
Source: Shank, Govindarjan (1993, p. 49)

From the above figure we can see that it is possible to achieve cost and differentiation advantage at the same time. However, this phenomenon is very rare and exists only in certain cases and it is very difficult to have long-lasting character, so that competitors sooner or later overwhelm and neutralize this advantage. Based on the mentioned competitive advantages Porter identified three generic competitive strategies based on the width of competitive area. The ratio of these two components is presented at the next picture.

		Competitive advantage	
		Lower costs	*Differentiation*
Competition area	*Wide*	**1. Cost Leadership**	**2. Differentiation**
	Narrow	**3a. Focused Cost Leadership**	**3b. Focused Differentiation**

Figure 2. Generic competitive strategies
Source: Porter (1980, p. 39)

Creating competitive advantage directly depends on the way how the company manages its value chain whose term, the role and significance will be explained in more detail in the second part of this paper.

1.3. The impact of costs on the competitive advantage

Creating competitive advantage is possible in two ways mentioned above, using low-costs or by differentiation. If the company chooses the first method, it is necessary that it keeps costs low in comparison to competitors that exist in the industry. Thus, a company that has the lowest costs in the industry has a privileged position or status. Lower costs allow setting lower prices than the prices of competitors, and thus allow the company to achieve a greater market share. In this way it is possible to achieve a greater profit if the company decides to sell at the average industrial price. With this kind of competitive advantage based on low costs, companies are focused on relatively standardized products or services with high demand. Such competitive advantage is perfect if the demand for the products is relatively elastic, which enables strategic management of prices.

In order to build competitive advantage at low costs it is necessary to set a clear strategic orientation, where the costs are at the heart of the strategy and it's most important content. Achieving the lowest costs of all industrial competitors is imperative that is embedded in the content of all business decisions. So the company is oriented to constantly reduce costs in all business segments, which requires the existence of large production capacity and output in relation to its competitors. The company should also make use of the existing potential of the economy experience, but also should gain access to cheaper inputs and resources. It is necessary to reduce the cost of all classes, especially the research and development costs, sales force and propaganda costs, the costs of additional and ancillary services. Permanent cost reductions are possible by the development of the culture of compliance costs.

Achieving competitive advantage in this way, costs are becoming the center of all management activities of the company. It is necessary to successfully manage and control all the sources and drivers of costs in the value chain if a company wants to have a lower average cost than its competitors. With tight control and monitoring of all segments of cost, cost budgeting appears as the necessary obligation. It is also necessary to involve all employees if the company wants this monitoring to be successful and to achieve its effects (Tipurić, 1999, p. 6). If the company efficiently performs the activities in the value chain from its competitors it can achieve a competitive advantage. Management must investigate each cost activity to identify all sources of costs. The aim of the company is to reduce costs in all business activities and to find the best ways to perform them. The positive effect on the reduction and expulsion of some business activities in the value chain has entrepreneurial creativity.

The initiator of the cost can be divided into two groups (Riley,1987):

1. Structural and
2. Executive.

There are five strategic choices in relation to the existing economic structure of the industry. These choices are in relationship with cost position and they are: the level of business, volume of business, the experience, the technology and the complexity of the offers (Shank, Govindarjan, 1993., p. 20). The level of business is related to the choice of the size of investment in production, research and development and marketing resources, while the volume of business depends on the choice of degree and form of vertical integration. When we talk about the experience, the question is how many times the company was doing in the past what she does now. The choice of technology refers to the process technologies used at each stage of the value chain, and the complexity of the offer depends on the width of the line assortment of products and services offered to customers.

Executive driver costs depend on the ability to perform the job successfully. Unlike the structural drivers that can change the direction of influence with their growth, executive drivers are better if they are higher, and some of them are: participation (involvement of the workforce in continuously improving), total quality management, capacity utilization, the efficiency of the work in organization (especially in factories), production configuration - depending on whether the design and formatting of products are efficiently designed and exploring the relationship with customers and suppliers in the value chain (Shank, Govindarjan, 1993., p. 22).

Previous conceptions of value drivers enable understanding of the costs in each activity of the value chain. The company needs to identify and diagnose cost drivers for each activity.

Sustainable competitive advantage is achievable on one of two ways (Shank, Govindarjan, 1993., p. 61):

1. By controlling the cost drivers better than industrial competitors,

2. By total reconfiguration of the value chain in order to achieve lower costs than the competitors.

Industries in which there are too radical technological and marketing changes or industries in which these changes are predictable, provide a greater opportunity for success of the low cost strategy. The industry in which price competition is the main competitive force and where industrial product is homogeneous and easily available in the market also has a great opportunity. The same is true for industries where there are not many ways to achieve various forms of production differentiation that have value for customers, but also in cases where the majority of customers have similar needs, wishes and requirements. The same is true when firms face very low costs to change their suppliers, but also in possession of huge bargaining power.

If the company operates in markets with low price elasticity of demand, then customers are not overly sensitive to price changes. In this case the cost leader will tend to have a pricing policy which does not differ from other industrial competitors. The company will be above average profitable because it will have a greater difference between the average costs and prices. The strategic orientation will be selling products to existing customers at existing prices, while achieving the greatest possible margin. On the other hand, markets that have greater elasticity of demand will include customers with greater sensitivity to price differences. In this case the company that achieved the lowest costs in the industry will reduce their prices and thus increase market share. The company's focus should be directed towards achieving the highest sales, and thus to exploit economies of scale and experience curve effects. It involves the construction of large and efficient capacity, while smaller profit margin will be compensated by higher sales volume and higher overall profits.

The strategy of low costs can be built in several ways. The company can offer only baseline range or be based on a simple design and equipment of products and services. It is necessary that the production and technology are simplified and that procurement of raw materials and other inputs is made at lower prices. It is also advisable to use a marketing approach that does not require a large capital, but also to use distribution activities that are cheaper. One of the ways is the exploitation of location advantages that reduce the cost of delivery, and product innovations are also inevitable. In addition to these modes, low cost strategy can be built with reducing the cost of organizational superstructure, and also with a greater degree of vertical integration in relation to industrial competitors.

Creating competitive advantage may be the result of focusing on low costs, but it is not always possible. Selecting this orientation to create a competitive advantage involves directing on the strategy of cost leadership and commitment to industry leadership. The strategic goal of the company is to become the industry leader, not only one of the companies that are fighting for that position. Such strategic rivalry among several companies with the aim of achieving leadership is very dangerous. Porter believes that the consequences for industrial profitability can be disastrous until one of the companies achieves cost leadership and thus convince other companies to abandon their strategy (Porter, 1985, p. 97).

When a company reaches the position of the cost leadership in industry, it has more possibilities for defense of the industrial powers. In relation to its competitors the company can aggressive cut prices and thus defend against threats to price war when necessary. With low prices a company will also take part of the sale of its competitors and thus achieve greater market share, thereby earning above-average profits in an industry where there is strong price competition. Low costs also allow safer dealing in cases when unstable prices appear and when there is a strong bargaining power of buyers. Greater efficiency that allows greater price space also allows the company to cope with the increasing cost of inputs, and thus neutralize the superiority of strong

suppliers. The company is also in a favorable position when it comes to potential newcomers because the low costs can be used to defend against the entry of new competitors. The same goes for defense against attacks of attractive substitutes.

Competitive capability that is being built at low cost also carries a certain risk points which are primarily related to the uncertainty of the business environment and the increased instability of business structural factors of the industry. Greater uncertainty and turbulence of the environment carries a higher risk.

In order to maintain competitor advantage, which is under constant attack from competitors, it is necessary to make huge efforts. Problems arise when competitors can easily and cheaply imitate methods which created the advantage of low cost. With creation of conditions of technological changes that could lead to significant cost savings competitors can neutralize the competitive advantage of the company. Focus on the continuous cost reduction can also create a form of marketing shortsightedness, where the company is unable to recognize the need for new product development or changes in the performance of some of the activities in the value chain. It is often the case that the desire of customers for added quality or new services increases suddenly. The same is true when declining consumer's price sensitivity, but also when need for differentiating factors is growing (Tipurić, 1999, p. 10).

2.Value of chain

2.1. Concept, role and significance of the value chain

In order to achieve competitive advantage and to create value for customers, the concept of the value chain is often very successfully used. The author of this concept is also Michael Porter who proposed the value chain as a tool by which companies can identify different ways to create greater value for consumers.

It can be said that every organization is a set of activities undertaken for the purpose of planning, production, sales, delivery and product support. So, the value chain can be simply defined as a set of related activities that are performed within a single business unit. With the value chain nine strategic, relevant activities that create value and costs can be identified. These nine activities can be divided into the following two groups (Kotler, Keller, 2001):

1. Primary (basic activities) - there are five activities: inbound logistics, production, outbound logistics, marketing and sales and services,
2. Helping (supportive) activities - there are four activities in this group: infrastructure of organization, human resource management, technology development and procurement.

Each of these activities generates costs. A graphical representation of the value chain is represented in the following figure.

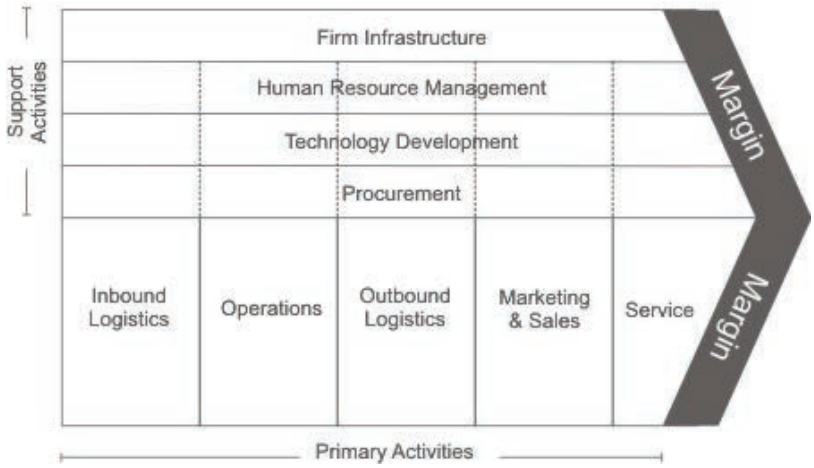


Figure 3. The value chain of companies
Source: Porter (1985)

The primary activities of the value chain are activities that are directly related to the production and delivery of products or services to consumers. Thus, the inbound logistics consists of a series of smaller activities such as reception, storage and distribution of inputs necessary for the production process. It includes activities as: control of materials, complaints, inventory management, transportation and others. Production refers to operations and includes all activities related to the transformation of inputs into outputs. It includes the activities of producing parts, assembling and packaging, equipment maintenance, quality control, environmental protection and others. Unlike inbound, the outbound logistics include activities as warehousing of finished products, processing of orders, loading the ordered goods and their transport, establishing and maintaining a network of dealers and distributors. Marketing and sales are related to activities of sales force, promotion, market research, and support for dealers. Services consist of a series of activities which include installation of products purchased, their maintenance and repair, customer training, responding to customer inquiries and to their wishes.

In addition to the primary activities there are activities for support that contribute to the effectiveness and efficiency of primary activities. Procurement is responsible for procurement of all resources used at different levels in the organization while technology development comprises activities: research and development of product, research and development of processes, design of processes and equipment, development of computer software and telecommunication systems, computer aided design and engineering, capacity development for the new database. These activities are often rounded up into three groups: development of technology for products, development of technology for processes and development of technology for materials. Human resource management is engaged in recruitment, selection, recruitment, training, remuneration, labor unions and others. Infrastructure refers to activities carried out in the system of strategic, investment and operational planning, quality control, management information, as well as activities in financial accounting, general and legal affairs, activities of physical and technical security and others.

It is also necessary to note that the value chain that exists in one business unit is only a part or subsystem within the system. This system is called a system of values or a system of value chain of the whole industry. It represents a set of interorganizational relations and connections that are essential for the production of products or services. Analysis of the aforementioned system is necessary because the value for consumers is not only created in the value chain of one company, but also in the value chain of suppliers, value chain of distribution channels, as well as in the value chains of consumers.

2.2. Analysis of strengths and weaknesses using the concept of the value chain

One might ask the question why a value chain is so important for competitive advantage. Every company can use the value chain to analyze the strengths and weaknesses in individual activities. In this way it is possible to spot the factors that need to be assessed in order to establish their significance through strength and weakness. These factors which are evaluated can be obtained by analyzing financial statements, but also from other information sources such as: analysis of the organizational structure and culture, as well as surveys of employees and consumers. The data obtained in this way are compared with the averages of branches and strategic groups, but also with the past results of the company.

With defined factors it is possible to identify strengths and weaknesses of the company, which also represent the potential carriers a competitive advantage and competitive disadvantage. Their potential is assessed with following questions (Šunje, 2002, p. 102):

1. The question of values - the question arises whether the resources and capabilities represent something valuable to consumers,
2. The question of rarities - in terms of the number of competitors that have such a resource or a certain ability,
3. The question of imitation - the question arises whether the resources or the ability can be easily and simply copied by competitors,
4. The question of sustainability - it is a company's ability to maintain the value, rarity and originality of a resource or capability it has.

The conclusion about the importance of strength or weakness of the company to create a competitive advantage will be based on the answers to the previous questions.

Companies can use the value chain to analyze the sources of competitive advantages that are found in all the primary activities, but also in activities for support. These sources can be low costs or uniqueness. Analysis of resources and capabilities that the company owns implies their interpretation in order to get answers to the question of whether they contribute to the production and sale of products at a lower cost than the competition, or they allow selling at higher prices or higher volumes sold at the same prices. Presented analysis leads to the identification of specific resource or ability as a driver of costs or uniqueness.

A company that uses low-costs as a source of competitiveness is focused more on meeting the requirements of efficiency than the requirements of effectiveness, whereby cost efficiency is a measure of consumed resources that are necessary to produce a given level of value. The cost advantage is achieved through the key drivers of costs, such as economies of scale, low cost suppliers, product design or process and experience. Unlike the previous group, those companies that use uniqueness as a source of competitive advantage are more oriented towards satisfying consumer demands for specific product attributes at a given cost. Effectiveness, representing a measure of differentiation is achieved through: identifying the list of the important characteristics of the product, understanding the drivers of uniqueness and analysis of additional costs to ensure uniqueness.

Competitive advantage comes from exploiting of existing resources and capabilities that are identified as drivers of costs or uniqueness. Since the resources and capabilities are variable, conditions for a new business unit strategy and competitive advantage are created by their transformation.

Conclusion

Functioning of every company is conditioned by various factors. These factors include various internal factors contained in the company which has influence on them. In addition to these factors external factors or factors of the business environment are also important. They provide the company with some opportunities but they also bring many threats.

In order to remain in today's turbulent business conditions, it is necessary to successfully fight the competition with different competitive forces such as: existing competition within the observed industry, bargaining power of buyers, bargaining power of suppliers, substitute products and new companies which want to enter the market. These five competitive forces that company can use to analyze a particular industry are defined by Porter.

Key to the success of the company is to create and maintain a competitive advantage in relation to other companies. This can be achieved in two ways and there are two types or sources of competitive advantages such as: low cost and differentiation. The first source of competitiveness is low costs which can place the company with the lowest costs in the industry in a privileged position. Lower costs allow setting lower prices than the prices of competitors, and thus the company can achieve a greater market share. It is also possible to get higher profits if the company decides to sell at the average industrial price.

If a company wants to look at different options and analyze the entire business, the concept of the value chain can be used very successfully. With this funding, the company's operations are shown in a simple and fast way by separating all activities. In this way, companies can spot different places and holders of the costs that may affect the creation of competitive advantage.

Given that the business idea, as well as the overall way of doing business is based on low costs, it can be concluded that lowering the costs makes a positive impact on competitive advantage. This confirmed the hypothesis which is defined in this paper, so we can conclude that the cost reduction has positive impact on the creation of competitive advantage.

References

1. Mašić, B. (2007), *Strategic Management*, University „Sinergija“, Bijeljina.
2. Kotler, P., Keller, K. L. (2001), *Marketing Management,* Mate, Zagreb.
3. Porter, M. (1985), *Competitive advantage*, Free press, New York.
4. Porter, M. (1980), *Competitive Strategy: Techiques for analyzing Industries and Competitors,* Free press, USA., 1980.
5. Riley, D. (1987), *Competitive Cost Based Investment Strategies for Industrial Companies* in *Manufacturing Issues*, Booz, Allen and Hamilton, New York, USA.
6. Shank, J. K., Govindarjan, V. (1993), *Strategic Cost Management*, The Free Press, New York.
7. Šunje, A. (2002), *Top-manager: a visionary and strategist*, Tirada, Sarajevo.
8. Tipurić, D. (1999), *The competitive advantage of the company - the choice between low costs and differentiation*, Sinergija, Zagreb, available on: http://web.efzg.hr/dok/OIM/npodrug/konkurentska%20prednost%20-%20niski%20tro%C5%A1kovi%20i%20diferencijacija.pdf (10.09.2015)

INNOVATIVE PUBLIC SECTOR AND ECONOMIC SUSTAINABILITY: GENERAL RULES AND THEIR EXCEPTIONS AT DIFFERENT STAGES OF DEVELOPMENT

Ateljević, Jovo[193]

Stojanović, Ilija[194]

Abstract

Innovation has become an important consideration for public sector today, particularly in policy development by creating supportive environment for economic development. It has become an important topic in political agenda for many developed countries. Moreover, developmental agenda of major international donors is very demanding towards developing countries and least developed countries to include this issue as a part of reform efforts of their public sector. Donor community's assumption is that the public sector institutions which promote innovation will be able to provide good governance and positive ambient for economic development.

The purpose of this study is to examine general rules which explain the effects of nurturing an institutional framework for promotion of innovation on specific dimensions of sustainable economic development. Moreover, it is oriented to test these rules in specific stages of development within different categories of countries including developed, developing, small island developing, transition and least developed countries. The research took an explanatory approach establishing causal links between selected variables. This study analysis the effects of institutional framework oriented to innovation (IV) on several specific variables of sustainable economic development (DV) including: economic development, competitiveness, poverty and human development. For this purpose the data from relevant international statistical sources have been collected. After identification of general relations between the independent variable and selected dependents variables, the research took more detailed analysis of these relations for different categories of countries. The aim of this analysis is to determine whether the general relations can be used in various economic environments. Furthermore, the research explained what type of the innovative environment is providing the incentive for sustainable economy. In that regard, we analyzed the impact of political, regulatory and business environment as incentives for innovation on specific indicators of sustainable economic development.

The conclusions drawn from the preliminary results, with some exceptions related to poverty indicator, indicate a high degree of correlation and regression of institutional framework oriented to innovation and selected variables of sustainable development. However, the findings related to the links of independent and dependent variables for different categories of countries and different environments provided the conclusion that each category of countries has own specificities. The results of this study suggest a potential theoretical contribution to the existing knowledge and valuable recommendations for practitioners and policy makers who should have in mind that different level of country development requires different approach in providing development policies.

Keywords: *innovation, sustainable economic development*

[193] University of Banja Luka, Majke Jugovica 4, 78000 Banja Luka, Republic of Srpska-Bosnia and Herzegovina, email: jovo.ateljevic@gmail.com

[194] University of Banja Luka, Majke Jugovica 4, 78000 Banja Luka, Republic of Srpska-Bosnia and Herzegovina, email: ilija.stojanovic@teol.net

1. Introduction

Today's world is becoming very open and state boundaries are not so relevant for business activities. This affects the movement of capital, investments and business activities in countries that enable better environment for business. Those countries that are not ready for this game are facing serious problems and crises. Furthermore, financial crisis and economic downturn have raised a host of new questions about the functioning of the public sector and have placed focus to institutional framework that promotes innovation. This requires reforming the public sector and its transition from rigid bureaucracy to new management models. According to Potts (2009), the public sector needs to innovate in order to survive in a competitive environment. Although many authors emphasize the importance of an innovative institutional framework, there is insufficient research linking theory and practice. This is especially the case for developing countries, countries in transition and less developed countries. Moreover, the exiting researches are more focused on general relations between innovative-oriented public sector and sustainable economic development without going into specificity of different categories if countries having in mind their level of economic development. Due to the limitations of previous studies, the effects of institutional framework which encourages innovation on sustainable economy remain underdeveloped.

This paper is aimed to research the importance of innovative institutional framework in terms of sustainable economic development. Broadly, we analyzed the effects of institutional framework oriented to innovation on specific dimensions of sustainable economy. The particular focus we put on analyzing these relations for specific categories of countries including developed, transition, developing, small islands developing and least developed countries. Moreover, we analyzed the influence of different environments that stimulate innovation on selected variables of sustainable economy. Our study raises the fundamental question: *Does the institutional framework oriented to innovation influence on sustainable economic development having in mind different stages of development of countries?*

The contribution of this study is three-fold: (i) it provides insights into the relationship between innovative institutional framework and selected variables of sustainable economic development (ii) it tests applicability of these rules in different categories of countries having in mind different stages of development and (iii) it analyses the effects of different types of the innovative environment on sustainable development indicators. The results of our study suggest a potential theoretical contribution to the existing knowledge and valuable recommendations for practitioners and policy makers.

2. Literature Review

According to Max Weber, bureaucracy management is the most rational form of management. He believed that bureaucracy is being “capable of attaining the highest degree of efficiency” (Weber, 1997:337). This theoretical assumption, based on efficiency of hierarchical organizational structure and very strict procedures, has found practical application in public sector organizations in many countries. However, more other authors have different and very opposite opinion on bureaucratic efficiency and effectiveness. Barzelay and Armajani (1992) point out that the bureaucratic paradigm has been criticized since the 1930s. In this sense Mason (2006) indicates that the public sector is not willing for risk taking and public sector workers are not encouraged to think outside of the box. Thus, the opinion that “bureaucracy carries with it seeds of its own inefficiency” is a relevant insight (Singhi, 1974:184).

A very negative view on bureaucratic public sector is linked with decreasing efficiency and effectiveness of this type of institutional framework that negatively affect the conditions for business and possibilities to boost further economic development. “The impact of red tape“, or so-

called ‘bureaucratic burden’ is seen as a very important issue of competitiveness within public sector (Global Competiveness report, 2008-2009:49). In this regard Parker (2004) argue that global economic competition, competitive pressures and globalization are the most important motivator in reforming the public sector. Thus, we should have in mind that lack of competitiveness in global world leads to economic crisis that is a major sign of unsustainable economy. Some scholars believe that the latest economic and financial crisis occurred in 2008 changed entrenched views on efficiency and effectiveness of public sector (Mihaiu, 2010; Klein et.al, 2010) requiring a fresh approach in activities of public sector. According to Parker and Bradley (2004:198), accepting new management techniques is very important and necessary step towards overcoming problems such as inefficiency and inflexibility. As an answer to growing challenges some of new management techniques begin to implement through systematic reform of public management (Pollitt&Bouckaert, 2000). In recent decades this type of reform has reached very top of political agenda in many countries. Thus, ongoing discussion on the institutional framework that promotes innovation is more and more seen as an answer for making the economy sustainable. A new approach to public sector reform through the introduction of innovative actions has become a universal recipe which is not so often undergone to objective criticism of academics and scholars.

2.1. Innovation and Institutional Framework of Public Sector

According to Mulgan and Albury (2003:3), “successful innovation is the creation and implementation of new processes, products, services and methods of delivery which result in significant improvements in outcomes efficiency, effectiveness or quality”. When we discuss on innovation, this term is often related to private sector. In the last few decades, we have witnessed an ongoing debate among scholars and public policy practitioners on the importance of innovation within public sector. Hartley (2005) argues that public services also need to consider governance innovation. However, it should be highlighted the existence of significant differences in private and public sector innovation. According to Lee et.al (2012), innovation in private sector is oriented to competitive advantage that leads to higher revenue. On the other hand, public sector innovation is driven to improve service performance for public benefit. Furthermore, some scholars discuss about importance of interactions of different stakeholders that could produce innovation. They put focus on “triple helix” concept covering multiple actors: governments, not-for-profit academic institutions and private business or industry sector (Asheim&Gertler, 2004; Sachs, 2003; Williams&Woodson, 2012). The complex interplay of these three sectors could enable environment for emerging innovation.

Initiative to implement innovation trough institutional framework comes from increasing problems related to “failure of state”. When governmental action is failing in a period of increasing problems, the public sector is expected to increase their capacity to innovate (Bland, et.al, 2010; Eggers et.al, 2009). In such circumstances, according to Borins (2001), internal problems and crises are important factors leading to innovation. However, innovation is a characteristic of private sector since they encourage profitability as their value. It should keep in mind that values and motivations in public sector are more complex and difficult to measure (Mulgan&Albury 2003, IDaA, 2005). This is the reason why a number of indicators have been developed such as the Worldwide Governance Indicators, NESTA Innovation Index, and European Innovation Scoreboard etc. For the purpose of our research, we used the data of Global Innovation Index developed by Cornell University, The Business School for the World - INSEAD and World Intellectual Property Organization - WIPO.

2.2. Entrepreneurial Behavior and New Public Management

Since the promotion of innovation requires a new approach to public action, bureaucratic organization should give place to a new form of entrepreneurial behavior in public sector. In this

sense, the idea to introduce the principles of behavior from private sector is seen as reasonable effort. Nevertheless, the idea of public sector entrepreneurship is not new (Shockley et.al., 2006). A special contribution for promotion of entrepreneurial policies in public sector gave Peter Drucker, renowned management consultant. In his classic book "Innovation and entrepreneurship: practice and principles" Drucker (2007) sets out the basic principles of entrepreneurship policy in public sector. According to him, each organizational unit within public sector should have a clearly defined role and its mission. In particular, this author puts the mission rather than legal standards as a basis that determines the course of action of the public sector. In this regard, the entrepreneurial paradigm is becoming the driving force in public management reform.

However, implementation of entrepreneurial principles within public sector is very challenging. It is very known that entrepreneurial management in private sector has a clear interest for profit. On the other hand, the public sector does not have profit as its main interest since it is more focused on satisfying public needs and public services. The problem arises with impossibility of measuring achievement of strategic goals and operational tasks, but also in absence of competition in public sector. In order to implement the entrepreneurship concept into public management, it is important to identify differences between private and public entrepreneurial action (Klein et.al, 2010). According to Wanna and Forset (1996:33), the practices of private and public sector should be brought into line and with market-based decision-making. Slightly different opinion is given by Wagner (1966) who identified political entrepreneurs as the broad group of individuals that supply collective benefits for political profit.

The New Public Management (NPM) is a relatively new philosophy of management in public sector. With introduction of this concept, the reforms in public sector that are based on principles of private sector become more intense. The genuine rise of “new public management” began in the 1980s (Smelser et.al, 2001; Hood, 1991). This approach of public sector reform appears in period of globalization, with the expanding global economy which brings costs and benefits to the countries. Such environment requires reinforcement of effective state that can focus on compensating losses caused by globalization and technical change.The NPM follows believes that a well-organized public administration gives a better opportunity to benefit from globalization (Development Policy Management Division, 2003). In historical perspective, the NPM is tied to the political program of Margaret Thatcher, former Prime Minister of Great Britain. Under the Thatcher's leadership (1979-1990), the reform of public sector management led to a very competitive system compared to other countries. This was a period when the UK had suffered heavily from recessive developments and tax revolts of their citizens. Simply, it happened in a period of crisis. The results of UK’s reform were an incentive for other commonwealth countries, mainly New Zealand and Australia, to join the reform. Later, in almost all OECD countries the NPM became priority on their political agendas (Gruening, 1998; Hood 1995).

The NPM is very important for introducing idea of innovation's applicability through public sector. Hartley (2005) indicates that the NPM introduce different approach to innovation. According to him, the innovation arising from new organizational forms and processes such as executive agencies in central government and focus on customers. Furthermore, networked governance, or citizens-centered governance, is oriented to enable co-production of services and innovation together with the community. This kind of collaborative engagement leads to open innovation (Lee, et.al. 2012). The NPM is a label used to describe a management culture that use management approaches and techniques borrowed from the private-for-profit sector (Development Policy Management Division, 2003). This paradigm is linked with the term “managerialism” (Hood, 1991; Gruening, 1998) meaning more “discretionary decision space in exchange for direct accountability for their actions” (Smelser et.al, 2001:12554). It implies a business type and market-based public service management based on enterprise culture with smaller, faster-moving service delivery organizations that would be kept lean by the pressures of competition (Development Policy

Management Division, 2003). In addition, Hood (1995) believes that basic principle of NPM is removing differences between the public and the private sector.

However, some scholars express criticisms related to the effectiveness of reforms based on the new public management. Pollitt (2013) points out that studies show failure of reforms based on principles of the new public management, not only in developing countries but also developed countries, bearing in mind that these reforms have not achieved measurable changes. Moreover, Samaratunga et.al. (2008) argue that such reforms become controversial even among OECD countries because of their focusing on economic and financial issues in public affairs neglecting importance of some other important issues such as the expenses of service quality and the level of citizen involvement. This kind of criticism highlight existing gap in consideration of institutional framework which nurtures innovation as a universal recipe for sustainable economic results.

3. Raising Questions about Implications on Economic Sustainability

Mulgan and Albury (2003) point out significant knowledge gap with regard to innovation within public sector, where quality research on the subject is rather limited. Moreover, Hartley (2005) consider there is relatively little question answered about innovation in governance. According to this author, although on new forms of governance much has been written, these issues are not discussed from an innovation perspective. Very interesting perceptive is given by Grindle (2004) who indicates that the most of innovative experiments, reflecting new ways of getting the government business done, provide only short-term solutions, and studying the impact of innovation is less carried out in the public sector. Bearing this in mind, we believe that the study of this topic is very important in terms of impact on sustainable economic development.

In recent years the role of innovation in catalyzing economic development has become increasingly appreciated by scholars (Williams&Wodson, 2012). In relation to this, Khan and Akif (2005) indicate on strong connection sustainable social and economic structure with efficient and effective institutional structures. Moreover, sustainable development requires radical changes not only in policy but also in the current system of governance (Kamp et.al, 2007). This is especially important having in mind the thesis by which Sachs (2003) claims that innovation depends on government inputs and government uses of science and technology. Some scholars like Howells (2005) indicate on presence of a continuing link between innovation and economic performance arguing that innovation is a strong factor in the process of economic growth. On the empirical evidence by using the RINNO database from the Innovation Scoreboard data for 2002, Howells argues that a clear correlation between innovation and economic activity and performance exists. He found the correlation between scientific output and GDP have been found in Italy at the level r^2= .94. However, regardless on the result of mentioned research, it presents an analysis in the context of one single country. Referring to the criticism expressed by Pollitt (2013) and Samaratunga et.al. (2008), our concern is related to the relationship between the institutional framework oriented to innovation and economic performance at more general level. Even more, most of studies do not analyze these relations in context of the level of economic development. Having all this in mind, we set up our first hypothesis; *H_1: The institutional framework oriented to innovation fosters economic development.*

Moreover, Grey (1973) argues that innovative states are more competitive and richer, and they are above average in wealth and competitiveness. It is considered that the public sector innovation is a source of competitive advantage in the global economy (NESTA, 2006). Very interesting point of view is expressed by Mowery and Oxley (1995) who analyzed the transformation of Japan and other East Asian economies which become one of most competitive at globally level. In explanation, they highlighted the role of national innovation systems. According to OECD (2007), innovation performance is seen as a crucial determinant of competitiveness and

national progress. “Undoubtedly the capability to innovate and to bring innovation successfully to market will be a crucial determinant of the global competitiveness of nations over the coming decade” (OECD, 2007:3). Although we point out some positive reflection of public sector innovation on competitiveness, in order to study its concrete effects on competitiveness as a factor of sustainable economy, we set up next hypothesis as follows; *H_2: The institutional framework oriented to innovation improves competitiveness.*

One of the major indicators of sustainable economy is referring to poverty issues. Thus, raising question of the effects of innovative institutional framework on reduction of poverty is very interesting. According to Cozzens and Kaplinsky (2009), the functioning of the innovation system could go into different directions. They believe it might ameliorate or exacerbate poverty and inequality. Some scholars put more focus on good governance in terms of reducing poverty. Grindle (2004) indicates “good enough governance” as an important factor of reducing poverty. According to her, good governance based on community engagement produce a wide range of innovative ideas about how to improve service delivery. Based on this idea some countries set up different innovative forms of consultation. Nevertheless, according to Glor (2007), question of will is still remains most important issue for successful application of innovative processes to improve governance and to address poverty. Having this in mind governments should commit to be effective in addressing poverty. What has been previously said leads us to the next hypothesis; *H_3: The institutional framework oriented to innovation contributes to poverty reduction.*

Additionally, some scholars argue that the innovation is very important for public sector performance in terms of human development. Walker, et.al (2011:367) claim that improving citizen’s quality of life and building a better and stronger community could be reached through innovation which is linked with improved service delivery to users. Moreover, there is growing awareness among policymakers that innovative activity is the main driver of economic progress and well-being (OECD, 2007). OECD (2012) provides some practical examples in which innovation is aimed to address urgent developmental challenges such as providing access to drinking water, eradicating neglected diseases or reducing hunger. Howells (2005) argues that wealth can be created and sustained by science and innovation. Still, in spite of its demonstrated benefits for long-term developmental goals of emerging and developing countries, the innovation is often is seen as an issue of high-technology. This raises a question of relevance of innovation for those economies (OECD, 2012). In this regards, our next hypothesis is; *H_4: The institutional framework oriented to innovation improves human development.*

However, all the above mentioned should be tested in different environments. Asheim and Gertler (2004:291) point out the fact that “innovative activity is not uniformly or randomly distributed across geographical landscape”. Moreover, Williams and Woodson (2012) claim that innovation in developing countries is subject to different challenges than in industrialized countries therefore cannot be explained by the same concept. Also, they claim that innovation in less developed countries is neglected by science and technology policy scholars. Due to absence of systematic theoretical and analytical approach, the lack of answers on key questions remains. In addition to this, Sachs (2003) argues that science was not considered as a part of development policy, especially in case of poorest countries. According to him, the “Washington Consensus”, or neo-liberal agenda is hardly mentioning science and it seems it is reserved for richest countries. He also claims that lack of science base is an obstacle for solving core development problems in poorest countries which causes absence of public provision of technology for public goods. Unlike the practice of developed and fast developing countries, the transition countries tried to apply neo-liberal formula to the old economic and social structures in order to transform towards the market economy. However, the specificities of the old structures prevent transformation of transition countries towards innovation-driven growth (Švrac, 2006). Švrac (2006) argues that knowledge-based growth factors are not relevant only for developed countries, but also for transitional

economies. She also indicates on recent analyses on innovation capacities of some transition countries performed by the European Union which claims that growth has primarily been generated by inter-sectorial restructuring, domestic consumption and foreign investments, while technology accumulation and innovation abilities have been neglected. According to her, this generated downsizing of knowledge base factors of economic growth.

Many scholars argue that the bureaucratic model of public management is an obstacle for innovation (Thompson, 1969; Borins, 2001). Having this in mind Potts (2009) suggests introduction of entrepreneurial behavior for political leaders. However, we are witnessing that public sector reform in developing countries is more oriented to meet these assumptions and principles of innovative entrepreneurship, while in transition countries the public sector still holding to strict bureaucratic management model. Moreover, Pansera (2013) claims that besides the difference of development‘s model between developing and industrialized countries, the expressed dissimilarities exist also within developing countries. He indicates the example of the Chinese economy which does not follow the western paradigm. Williams and Woodson (2012) provide another example of “East Asian Tigers” indicating the relations of their innovation capacity and economic growth. It is true that a number of significant studies have recently been done in order to confirm the necessity of reforming public sector, but the question of how such inferences would help towards building up innovative models of public management, especially in transition countries and least developed countries, still remains. Having this in mind, we set up our secondary research question: *Do the general rules, which explain effects of the institutional framework oriented to innovation on sustainable economic development, could be applied in different categories of counties equally having in mind their different stages of development?*

In our research we should not forget existence of different environments as constitutive parts of the institutional framework in public sector. According to Peilei, (2011), governments have a specific role to set up environments that encourage innovation activities. Cozzens and Kaplinsky (2009) argue that innovation is determined by specific social, political and economic relations, influenced by institutional context in which these relations take place.

These authors emphasize that different economic, social and political processes affect whether innovation reflecting and reinforcing inequality or undermining it. The review of different factors was also given by Švrac (2006) who claims that slow economic growth of the transition countries is closely related to the social and political factors. From all the above mentioned concerns arises new question: *What type of the environment within the institutional framework is providing the incentive for sustainable economy?*

4. Methodology

Our empirical research was performed with aim to analyze a general relations between the effects of institutional framework oriented to innovation (independent variable - X_1.) and selected variables of sustainable economic development (dependent variable - Y_n). Among many others, we identified and selected four indicators of sustainable economic development: economic development (Y_1), competitiveness (Y_2), poverty (Y_3) and human development (Y_4). The study was based on a simple regression analysis and analysis of variance. We set up our prediction model as:

$$Y_n = \acute{\alpha} + \beta X_1,$$

This prediction model was applied to analyze the effects of the independent variable (X_1) for each dependent variable (Y_n) separately in order to test $H1_0 : \beta = 0$ versus $H1_A: \beta \neq 0$.

However, our aim was not only to study the general relations between innovative institutional framework. We were interested also to find out more on specificities of different categories of

countries taking into account their different level of development. In this respect we divided our basic sample into five different categories of countries: (1) developed countries, (2) countries in transition, (3) developing countries (4) least developed countries, (5) small island developing countries. This categorization is based on the UN country classification (UN, 2012). According to this classification we found three major groups of countries: developed countries, countries in transition, developing countries. Furthermore, having in mind the level of their development, we provided more detailed categorization of developing countries into two additional groups: least developed countries and small island developing countries. To study specificities of different categories we analyzed the data for each category group separately using the regression command in SPSS. The results of such analysis gave us the possibility to identify statistical significance of the predictor within the prediction model for each group of countries separately. Moreover, this analysis enabled more detailed findings on course and intensity of prediction of each independent variable for different categories of countries.

Moreover, we found interesting to predict the size of a regression coefficient that may vary across groups. Thus, we compared the regression coefficients among five categories of countries to test the null hypothesis $H2_0$: $B_1=B_2=B_3=B_4=B_5$ where B_1 is the regression for the developed countries, B_2 is the regression for the transition countries, B_3 is the regression for the developing countries, B_4 is the regression for the least developed countries, and B_5 is the regression for the small island developing countries.
According to one of research questions, it was also interesting to find which type of the environment within the institutional framework is providing the incentive for sustainable economy, respectively on selected indicators of sustainable economic development. For this purpose we used three sub-pillars of the Global Innovation Index (pillar Institutions): political environment (X_{pe}), regulatory environment (X_{re}) and business environment (X_{be}). These three independent variables were used in multiple regression analysis to find relations with particular variables of sustainable economic development in order to test $H3_0$: $\beta_1=\beta_2=\beta_3=0$ versus $H3_1$: *At least one* β *is not zero*. We set up our prediction multiple regression model as follows:

$$Y_n=\acute{\alpha}+\beta_1 X_{pe}+\beta_2 X_{re}+\beta_3 X_{be}$$

Our research sample included 215 countries with data from two years period from 2011 to 2012. For each research variable we used data of specific indicator from particular database that reflects meaning of the variable. The response sample rate was dependent on availability of data from specific database sources. The variables and their interpretation are presented in following table.

Variable name	*Type*	*Indicators and source*	*Clarification*
Public sector innovation	Independent X_1	Global Innovation Index (pillar: Institutions)	"Nurturing an institutional framework that attracts business and fosters growth by providing good governance and the correct levels of protection and incentives is essential to innovation" (Dutta [ed.], 2012)
Political environment	Independent X_{pe}	Global Innovation Index (pillar: Institutions), sub-pillar	"…reflect perceptions of the likelihood that a government might be destabilized ; the quality of public and civil services, policy formulation, and implementation" (Dutta [ed.], 2012)
Regulatory environment	Independent X_{re}	Global Innovation Index (pillar: Institutions), sub-pillar	"…the ability of the government to formulate and implement cohesive policies that promote the development of the private sector and at evaluating the extent to which the rule of law prevails" (Dutta [ed.], 2012)
Business environment	Independent X_{be}	Global Innovation Index (pillar: Institutions), sub-pillar	"…affect private entrepreneurial endeavors by using three World Bank indices on the ease of starting a business; the ease of resolving insolvency and the ease of paying taxes" (Dutta [ed.], 2012)

Economic development	Dependent Y_1	GDP per capita PPP (current int. $), World Bank	"Qualitative change and restructuring in a country's economy in connection with technological and social progress. The main indicator of economic development is increasing GDP per capita." (Soubbotina, 2000)
Competitiveness	Dependent Y_2	Global Competitiveness Index, World Economic Forum	"…the set of institutions, policies, and factors that determine the level of productivity of a country" (World Economic Forum, 2011)
Poverty	Dependent Y_3	Multidimensional Poverty Index, UNDP	"The MPI is an index of acute multidimensional poverty. It reflects deprivations in very rudimentary services and core human functioning for people" (Alkire&Santos, 2010:7)
Human development	Dependent Y_4	IHDI Human Development Index, UNDP	"… a composite index measuring average achievement in three basic dimensions of human development -a long and healthy life, knowledge and a decent standard of living" (UNDP, 2013)

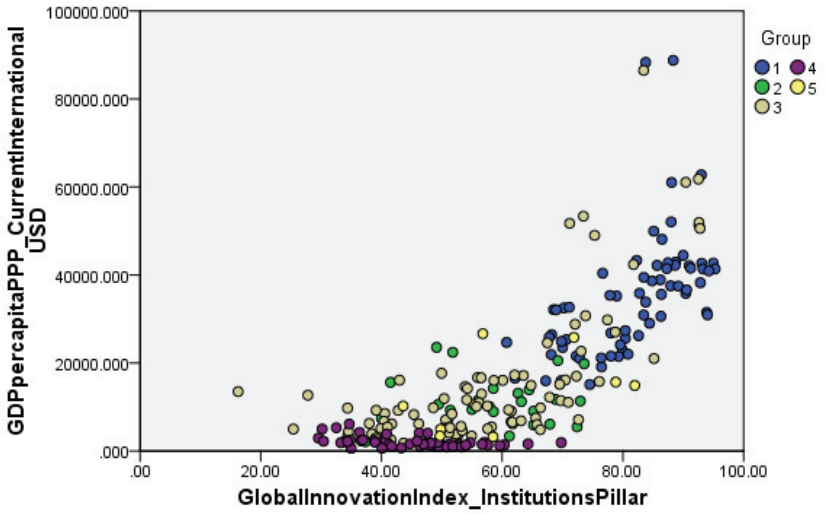
Table 1: Interpretation of research variables

5. Results and Interpretation

The results, geared for testing each working hypothesis, are now presented and interpreted for each analyzed dimension of sustainable development. Although not every result can be covered in this section, the results most relevant to answering the research questions are presented.

Economic development

The model summary of linear regression between the institutional framework oriented to innovation (IV) and economic development presented by GDP per capita (DV) gives value of R=.785, which leads to conclusion of high positive correlation between two variables. The coefficient of determination R^2=.616 indicates that the changes of independent variable explain 61.6% of the variability in GDP per capita, which is very large. Going further to the analysis of variance, the ANOVA determines $F(1;246)=394.88$, $p<0.0005$, which suggests the regression model predicts the outcome variable significantly well.



Graph 1: Correlation between the IV and GDP p/c

These findings lead to conclusion that we can reject $H1_0$. Our interpretation of the prediction model is that the effects of the institutional framework oriented to innovation foster economic development trough increasing GDP per capita. The prediction model gives us the regression equation:

$$Y_1 = -29{,}929.87 + 731.30(X_1).$$

In order to find out more on specificities of different categories of countries, we analyzed data for each category group separately. The results suggest that the independent variable is a stronger predictor of economic development for developed countries (889.32) than for developing countries (709.58). In case of least developed countries, our results are very interesting suggesting that the institutional framework oriented to innovation is a negative predictor of economic development (-212.05). Although this coefficient has no such strong effect as in case of developed and developing countries, it is still statistically significant at $p<.001$. For transition countries (159.15) and small island developing countries (307.56) the results suggest that the independent variable is not statistically significant predictor of economic development since $p>0.05$. Thus, we can conclude that only in developed and developing countries exists statistically supported evidence which suggest positive effects of the institutional framework oriented to innovation fostering economic development by increasing GDP per capita.

Moreover, we compared the coefficients for different categories of countries and found subset tests results $F=9.256$, $p<0.0005$. The result shows that the null hypothesis $H2_0$ tested against the full model can be rejected. This means that the regression coefficients between the dependent variable and economic development do indeed significantly differ across different categories of countries. More precisely, there is different intensity of prediction of economic development expressed by the effects of institutional framework oriented to innovation in different stages of development.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-29441,506	2364,692		-12,450	,000
	GlobalInnovationIndex_Institutions_PoliticalEnviroment	377,396	51,713	,480	7,298	,000
	GlobalInnovationIndex_Institutions_RegulatoryEnviroment	217,250	57,210	,251	3,797	,000
	GlobalInnovationIndex_Institutions_BusinessEnviroment	138,005	31,028	,191	4,448	,000

a. Dependent Variable: GDPpercapitaPPP_CurrentInternationalUSD

Table 2: Regression model where GDP p/c is dependent variable

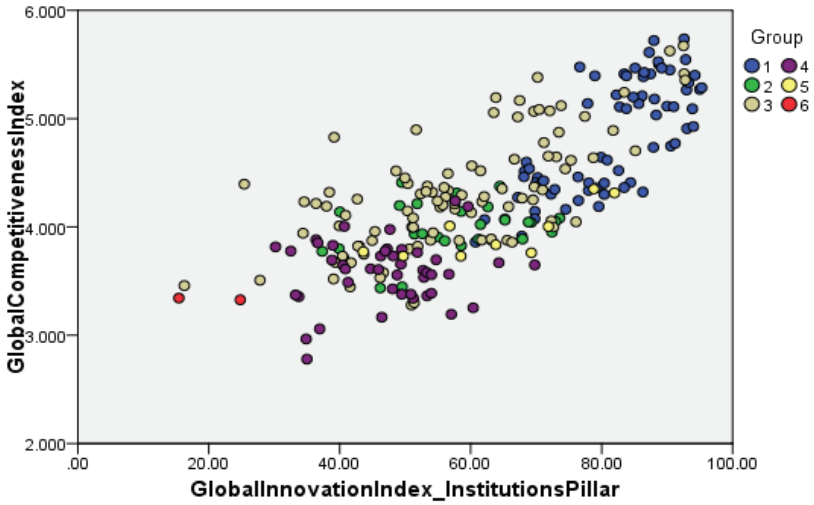
Another analysis is aimed to find prediction effects of different types of the environment within the institutional framework. It was performed by multiple regression in order to predict economic development from different environments. Coefficient of correlation $R=.805$ indicates a good level of model prediction of economic development by three types of environment. These variables significantly predict economic development, $F(3;243)=149.08$, $p<.0005$, $R^2=.648$. Thus, we can reject the null hypothesis $H3_0$ and conclude that at least one of three types of the environments belongs to the model. Moreover, we found that all three variables are statistically significant to the prediction, $p<.05$. Having this in mind, we can present the multiple regression equation as:

$$Y_1 = -29{,}441.51 + 377.40(X_{pe}) + 217.25(X_{re}) + 138.01(X_{be}).$$

The results suggest that political environment is stronger predictor of economic development than regulatory environment, while business environment has less effect.

Competitiveness

The results performed to analyze relations between the effects of institutional framework oriented to innovation and competitiveness indicate high positive correlation since we found value R=.770. Coefficient of determination R^2=.593 indicates that the independent variable explains 59.3% of the variability of competitiveness. Our ANOVA analysis determines $F(1;249)=363$, $p<0.0005$ suggesting that the regression model predicts the outcome variable significantly well.



Graph 2: Correlation between the IV and competitiveness

Based on these findings we are able to reject the null hypothesis $H1_0$. Thus, the findings lead us to conclude that the institutional framework oriented to innovation improve competitiveness. The results are presented by the regression equation:

$$Y_2=2.463+.028(X_1).$$

Our further analysis of regression for separate categories of countries do seem to suggest that the independent variable is more stronger predictor of competitiveness for developed countries (.042) than for developing countries (.025) at the level of $p<0.0005$, and for small island developing countries (.025) at the level p=015. In cases of countries in transition (0.005) and least developed countries (0.005) the results suggest that the independent variable is not statistically significant predictor of competitiveness since $p>0.05$.

Our comparison of coefficients within different categories of countries shows F=7.307, $p<0.0005$ tested against the full model. These test results enabling conclusion that the null hypothesis $H2_0$ can be rejected. Having this in mind, the regression coefficients between the institutional framework oriented to innovation and competitiveness do indeed significantly differ across different categories of countries.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,423	,098		24,635	,000
	GlobalInnovationIndex_Institutions_PoliticalEnviroment	,009	,002	,289	4,184	,000
	GlobalInnovationIndex_Institutions_RegulatoryEnviroment	,014	,002	,395	5,700	,000
	GlobalInnovationIndex_Institutions_BusinessEnviroment	,006	,001	,223	4,950	,000

a. Dependent Variable: GlobalCompetitivenessIndex

Table 3: Regression model where competitiveness is dependent variable

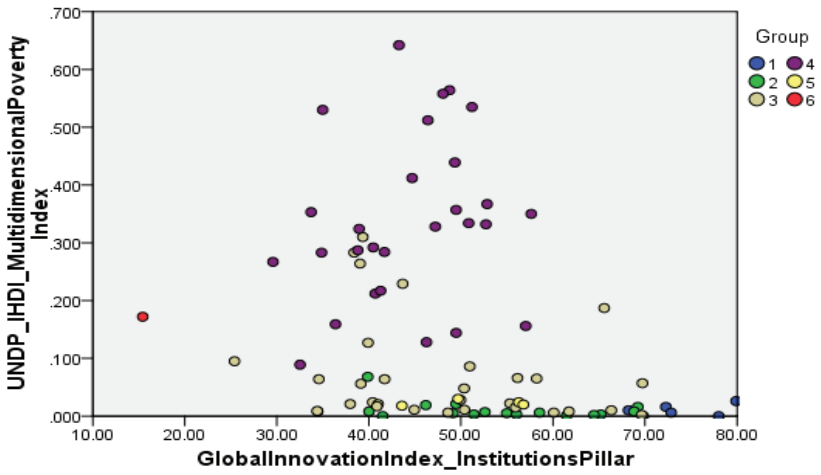
In our multiple regression analysis we found the R=.780. This finding indicates a good level of model prediction of competitiveness as dependent variable. A multiple regression shows $F(3;246)=127.28$, $p<.0005$, $R^2=.608$. Accordingly, multiple regression shows:

$$Y_2=2.423+.009(X_{pe})+.014(X_{re})+.006(X_{be}).$$

According to our findings all three identified dependent variables significantly predict competitiveness at p<.05. In this regard we are able to reject the null hypothesis $H3_0$ since all variables are indeed statistically significant predictor in the model. Moreover, we found the regulatory environment is stronger predictor for competitiveness than other two types of environment.

Poverty

Our analysis of relations between the institutional framework oriented to innovation and poverty reduction has own specificities. The Pearson correlation determines R=-.327 which leads to conclusion of low negative correlation between the independent variable and poverty. The model summary indicates coefficient of determination with $R^2=.107$. According to this result, the independent variable explains only 10.7% of the variability in the poverty, which is very low. The ANOVA gave result $F(1;84)=10.07$, p=.002 which suggests the regression model still statistically predicts the outcome variable respecting assumption of 5% level of risk.



Graph 3: Correlation between the IV and poverty

Thus, in this phase we reject the null hypothesis $H1_0$ having in mind slight level of risk at p=.002. Based on the results, our regression equation could be presented as follows:

$$Y_3=.359-.003(X_1).$$

After sorting our sample by different categories of countries, we analyzed data for each category separately. The simple regression results suggest that the independent variable is not stronger predictor of poverty for any of specific categories since we found p>0.05 in each case. The coefficients of the institutional framework oriented to innovation in cases of developed countries and transition countries are equal to 0. We found very low coefficients in cases of developing countries (-.002), last developed countries (.003) and small island countries (.001). Even in these cases we found p>0.05. Thus, at the level of all categories of countries we are not able to find relationship and statistically significant effect of institutional framework oriented to innovation on poverty reduction. In this sense, we accept the null hypothesis $H1_0$ for each category of country**.**

According to the results of comparison of coefficient within different categories of countries we found F=.991, p=0.418 tested against the full model. The analysis shows that the null hypothesis $H2_0$ cannot be rejected. This means that the regression coefficients between the independent variable and poverty do not significantly differ across different categories of countries.

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,329	,067		4,941	,000
	GlobalInnovationIndex_Institutions_PoliticalEnviroment	-,002	,001	-,276	-1,567	,121
	GlobalInnovationIndex_Institutions_RegulatoryEnviroment	,002	,002	,220	1,245	,217
	GlobalInnovationIndex_Institutions_BusinessEnviroment	-,003	,001	-,342	-2,975	,004

a. Dependent Variable: UNDP_IHDI_MultidimensionalPovertyIndex

Table 4: Regression model where GDP p/c is dependent variable (enter method)

Based on enter method for multiple regression analysis, which includes analysis of different environments, we found R=.398. This result indicates a relatively low level of model prediction for poverty as dependent variable. Moreover, we found that two independents variables, the political environment and the regulatory environment, are not statistically significant as predictors.

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,335	,052		6,486	,000
	GlobalInnovationIndex_Institutions_BusinessEnviroment	-,003	,001	-,364	-3,564	,001

a. Dependent Variable: UNDP_IHDI_MultidimensionalPovertyIndex

Table 5: Regression model where GDP p/c is dependent variable (stepwise method)

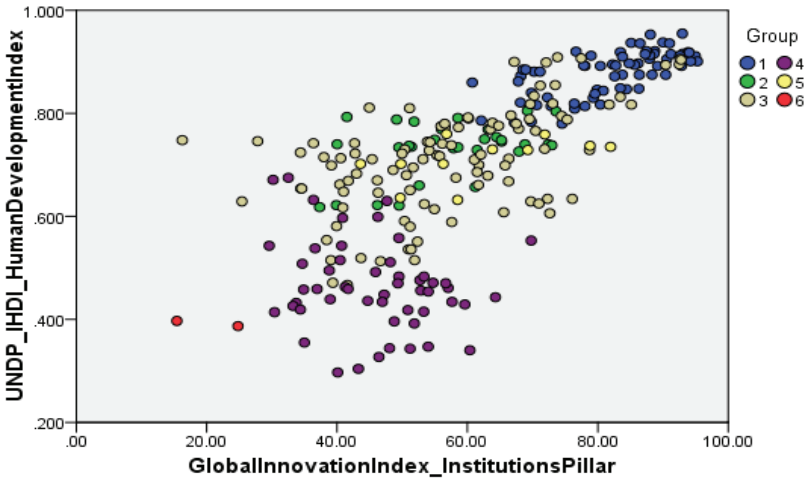
According to stepwise analysis the prediction model was reached in one step with result $F(1;83)=12.7$, $p<.05$, $R=.364$, $R^2=.133$. We determined that only the business environment statistically significantly predicts the poverty variable. However, even this independent variable, standing alone in prediction model, explains the variability in the poverty with law level of intensity. The regression equation seems to be as:

$$Y_3=.335-.003(X_{be}).$$

Other two variables, the political environment and the regulatory environment, were excluded from the prediction model due to their insignificant effect of prediction. Statistically, our results still support conclusion of necessity to reject the null hypothesis $H3_0$ since at least one independent variable belongs to the model. However, the absence of greater level of linking poverty reduction with the effects of innovative institutional framework still remains.

Human development

According to correlation analysis between the institutional framework oriented to innovation and human development we found value R=.734. This result leads to conclusion of high positive correlation between the independent variable and human development. Moreover, the coefficient of determination $R^2=.538$ indicates that the institutional framework oriented to innovation explains 53.8% of the variability in level of human development. The ANOVA shows $F(1;264)=307.69$, $p<0.0005$ suggesting that the regression model predicts the outcome variable significantly well. Thus, we can reject the null hypothesis $H1_0$. In this respect, we are able to conclude that the institutional framework oriented to innovation leading to improve level of human development.



Graph
41: Correlation between the IV and HDI

Our simple regression equation could be presented as follows:

$$Y_4=.245+.007(X_1).$$

After sample sorting by different categories of countries, the results suggest that the independent variable is a slightly stronger predictor of human development for developing countries (.004) than for developed countries (.003) with $p<0.0005$ and for transition countries (.003) with $p=.005$. From these results it can be seen that these coefficients are not very high. In cases of small island developing countries (-.037) and least developed countries (-.002) the results suggest that the independent variable is not statistically significant predictor of human development since $p>0.05$.

In order to compare intensity of the coefficients within different categories of countries, we found $F=5.472$, $p<0.0005$ tested against the full model. Thus, the null hypothesis $H2_0$ can be rejected. This means that the regression coefficients between the independent variable and human development do indeed significantly differ across different categories of countries.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,253	,026		9,565	,000
	GlobalInnovationIndex_Institutions_PoliticalEnviroment	,004	,001	,441	6,121	,000
	GlobalInnovationIndex_Institutions_RegulatoryEnviroment	,002	,001	,197	2,729	,007
	GlobalInnovationIndex_Institutions_BusinessEnviroment	,002	,000	,224	4,760	,000

a. Dependent Variable: UNDP_IHDI_HumanDevelopmentIndex

Table 6: Regression model where HDI is dependent variable

Our multiple regression analysis, which explains the effects of different types of environments (IV) on human development, gives R=.741. We found that all three independent variables significantly predict competitiveness with the result $F(3;260)=105.54$, $p<.0005$, $R^2=.549$. Thus, we can reject the null hypothesis $H3_0$. The results of multiple regression analysis can be presented by following equation:

$$Y_4=.253+.004(X_{pe})+.002(X_{re})+.002(X_{be}).$$

While it is apparent that all coefficients are not high, from the equation it could be indicated that the political environment achieves greater impact on human development than other two variables.

6. Discussion

As already mentioned, Howells (2005) indicates on empirical evidence that confirms relationship between innovation and economic performance. This empirical result was based on very narrow sample which included countries from the Innovation Scoreboard database. This database includes only EU member states which are mainly highly developed. Although we confirmed hypothesis of general relations between the effects of institutional framework oriented to innovation and economic development, our study raise a concern on this issue particularly in sense of its applicability in different stages of development. The major concern is about application of these general rules in countries with different stages of development that has own specificities. Mainly because of empirical evidence confirming that the regression coefficients between the institutional framework oriented to innovation and economic development presented by GDP per capita are different across countries with different stage of development. Moreover, our study suggests that the effects of independent variable contribute to increasing GDP per capita only in developed and developing countries. Even more, the results show a negative relation, although with relative small intensity, for least developed countries. Thus, we should reconsider what Howells (2005) claims on this issue. It could be said that the countries which have positive trend of development could additionally benefit from innovation which are enabled by the institutional framework oriented to innovation trough increasing GDP per capita. For other countries, these effects of innovation are not much relevant for movement and trends in GDP per capita, especially in short-term period. However, we know from Sachs (2003) that innovation depends on government inputs and government uses of science and technology. We would like also to refer on Asheim and Gertler (2004:291) who argue on non-randomly distributed the innovative activity across geographical landscape. Having in mind that transition and non-developed countries are not significant users of science and technology, further research could explain these deviations of generally confirmed evidence of relations between the the effects of institutional framework oriented to innovation and economic development trough increasing GDP per capita. According to Švrac (2006), slow economic growth of transition countries is closely related to social and political factors. Our findings especially indicate the importance of the political environment for economic development trough increasing GDP per capita. The absence of stimulus political environment in transition and less developed countries is a major constrain for effecting economic development by innovation provided and enabled by the institutional framework. We also agree with the claim given by Sachs (2003) on the necessity of donor's support for poorest countries in reexamination of current practices in transfer of technology and innovation.

In relation to influence on competitiveness, we can agree with scholars like Parker (2004) who argues that public sector reform is motivated by global economic competition and the competitive pressures associated with globalization. Our study indicates clear relationship between the effects of institutional framework oriented to innovation and competitiveness. The findings support arguments expressed by Potts (2009) who claims that public sector need to innovate in competitive environment in order to survive. However, we found some exception referring to the context of transition countries. Our research has shown that despite the fact that global competition affects the application of innovation in the public sector, the current model of institutional framework in transition countries have no significant effect on improving competitiveness. This exception in relations between the independent variable and competitiveness could be linked with Švrac's (2006) arguments regarding the lack of knowledge-based growth factors in transition countries. According to her, downsizing of knowledge base factors in transition countries have been occurred during transition from an old system having in mind that growth in these countries has

primarily been generated by inter-sectorial restructuring, domestic consumption and foreign investments. The domestic technology accumulation and innovation abilities in transition countries have been neglected. Thus, it seems that the specificities of the old structures are really preventing transformation of transition countries towards innovation-driven growth.

Very interesting conclusion can be drawn from our empirical evidence related to the effects of institutional framework oriented to innovation on povery reduction. In this regard, we did not find sufficient evidence to support statistically positive relationship between two variables. According to Soubbotina (2000), obtaining education and using knowledge in competitive market economy as main risk factor of poverty. In poorest societies there is an absence of orientation to strengthening innovative capacity since it is not seen as a priority. Moreover, innovative development is usually aimed at business development that creates new opportunities for private sector. However, this course of innovative development does not provide an opportunity to get out of poverty. Some other authors like Cozzens and Kaplinsky (2009) also claim that the innovation system might ameliorate or exacerbate poverty and inequality. In this regard our empirical evidence raises concern on the effects of institutional framework oriented to innovation in reducing poverty. Even the international community has recognized inefficiency of the current aid mechanism of reducing poverty by providing new way of development assistance through innovative sources of development finance (United Nations, 2012; United Nations 2011). In his Report on innovative mechanisms of financing for development, the Secretary-General, referring to the UN resolution 65/146, highlighted the importance of aid disbursement in accordance with the priorities of developing countries that should request the creation of a national coordination mechanism, consisting of all the major stakeholders in each recipient country, as a forum to design and implement its country-driven programs. This new approach is oriented to inclusion of a wide range of stakeholders in order to initiate “country-driven” programs. Our findings put additional concerns for development policy in reducing poverty trough innovation. Thus, we will leave further explanations on factors which cause the absence of direct links between the effects of the institutional framework oriented to innovation and reducing poverty for further research.

Although we did not find enough evidence of linking the effects of institutional framework oriented to innovation and reducing poverty, our study still suggests positive impact on improving human development. These results are in line with the thesis given by Walker et.al, (2011) where innovation is very important for public sector performance with the aim to improve service delivery to users and citizens with focus on improving their quality of life and building a better and stronger community. Our measurement of human development is based on Human Development Index performed by UNDP which represents “a long and healthy life, knowledge and a decent standard of living” (UNDP, 2013). The findings support claims that innovative activity is the main driver of economic progress and well-being (OECD, 2007), but not for all stages of development. Namely, the results suggest that enabling innovation within the institutional framework improves human development only in developed, developing and transition countries. But, what about the countries where human development is a really the most important issue? Our results don’t provide statistically significant evidence that the effects of institutional framework oriented to innovation support human development in the poorest countries. Although OECD (2012) gave some practical examples in which innovation is aimed to address urgent developmental challenges such as providing access to drinking water, eradicating neglected diseases or reducing hunger, our empirical evidence indicate that the institutional framework oriented to innovation is not significant factor for human development in poorest countries. We believe that the poorest countries do not take human development as a major priority having in mind their lack of knowledge base and innovation efforts. In spite of its demonstrated benefits for meeting of immediate and long-term developmental goals in emerging and developing countries, the relevance of the effects of innovation enabled by public sector for these economies is sometimes questioned, especially because innovation is often is seen as issue of high-technology (OECD, 2012). We found that this claim could find fertile ground

especially in poorest countries. This could be explained with absence of innovative capacity in poorest countries that could influence human development. In poorest countries international donor's assistance is much oriented in solving core existential problems rather than enabling sustainable development based on internal innovation base which is not existing.

It is already mentioned that the bureaucratic model of public management is an obstacle for innovation (Thompson, 1969; Borins, 2001). Having this in mind, Potts (2009) proposes that political leaders should act as entrepreneurs. We are aware that the practice of public sector reform in developing countries is more oriented to meet assumptions and principles of innovative entrepreneurship, while in transition countries the public sector is still holding to strict bureaucratic management model. Thus, the different environments should be considered as an important assumption of enabling innovation within institutional framework. Our study reflects importance of political, regulatory and business environment in enabling innovation through public sector. However, these environments differently affect specific dimensions of sustainable economic development. Even more, we could agree with Peilei, (2011) who indicates on specific role of governments to set up environments that encourage innovation activities. Some authors claim that period of internal problems and crises leads to increasing capacity of the public sector to innovate (Bland, et.al, 2010; Borins, 2001; Eggers et.al, 2009). Such general theoretical approaches don't taking into account specificity of different categories of countries with different levels of development. It is a fact that the major internal problems and crisis are occurring in less developed countries and countries in transition. Some authors, such as Gruening (1998) and Hood (1995), claim that in response to crisis many countries, especially counties of OECD in late 1980s, have begun reforming their public sector in order to enable innovation. However, our study shows no invectives for innovative behavior in transition and less developed countries. Thus, further studies should be oriented to analyze which factors are most important for enabling stimulus environments for innovative behavior within institutional framework having in mind characteristics of different categories of countries and their level of development. Only having in mind these specificities, the innovative development policy could have sustainable impact on economy.

7. Conclusions and Implications

To surmise, Entrepreneurial Management in public sector and New Public Management theories have created solid basis for improving public management. Their principles which recognize innovation as a very important factor of public performance found their application in public sector around the world. However, transition from bureaucratic models to innovative models represents a major change. It is a transition from the 'status quo' to the status of 'permanent changes'. It should be based on changing management models that systematically support innovation, rather than adapting bureaucratic organization. For those who lead this process, it can be very tedious. Especially as these changes introduce principles from the private sector that often means existence of risk of job loss, struggle to achieve results, permanent work and training. This requires that public administration should consider innovation rather than being orientated towards conformism.

This paper highlighted certain specificities of different categories of countries based on level of their development. Rather to establish general rules, it is more important to perceive how the effects of institutional framework oriented to innovation influence sustainable economic development in different environments. For policy makers are more important to learn which type of environment is more important in order enhance level of economic development and to provide sustainability. This is especially important for transition and less developed countries. The study reveals some exceptions due to level of development in different counties. The most concerning

issue is related to poverty reduction and the possibility to use innovative solution in dealing with this challenge.

The new question that arises is focused to the necessity to re-examine the objectives which should be achieved by introducing new forms of innovative institutional framework. The findings of this study suggest a potential theoretical contribution to existing knowledge and valuable recommendations for practitioners and policymakers. Our research has shown that the main question for success of innovative policy is to identify which type of environment should be created and supported by policy action in order encourage sustainable economic development. Future research should examine characteristics of political, regulatory and business environments in different categories of countries in order to find best answers for policy makers.

8. Limitations and Suggestions for Further Research

Limited time and resources have put limitations on the research. Our sample size is not small since it included whole population of 215 countries from the Global Innovation Index database. However, we used data for only two years for period from 2011 to 2012. The difference in methodology of composition of the Global Innovation Index in previous years put limitations for increasing the time-scale of the research. The response sample rate was dependent on availability of data from specific database sources used for different variables. Moreover, our research included just five selected variables that represent sustainable economic development. Further research could involve some other variables and indicators of sustainable economic development in order to analyze relations between the effects of institutional framework and some others indicators of sustainable development. Moreover, it could be also very interesting to study characteristics and factors of different environments at different stages of development which causes different effects of the institutional framework oriented to innovation on sustainable economic development.

References

1. Albury, David (2005). *Fostering innovation in public services*. Public Money and Management, Volume 25, No 1, p.51-56
2. Alkire, Sabina; Santos, Maria Emma (2010). *Acute Multidimensional Poverty: A New Index for Developing Countries*. Oxford University: Oxford Poverty & Human Development Initiative (OPHI), Working Paper no. 18
3. Asheim, Bjorn; Gertler, Meric (2004). *The Geography of Innovation*. In Fagerberg, Jan; Mowery, David C.; Nelson, Richard R. [Eds], *The Oxford Handbook of Innovation*. OUP Oxford
4. Barzelay, Michael; Armajani, Babak J. (1992). *Breaking through bureaucracy: a new vision for managing in government*. Berkeley: University of California Press
5. Bertelsmann Stiftung [ed.] (2014). *Bertelsmann Transformation BTI 2014*. Gütersloh: Verlag Bertelsmann Stiftung
6. Bland, Travis; Bruk, Boris; Kim, Dongshin; Lee Taylor, Kimberly (2010). *Enhancing Public Sector Innovation: Examining the Network-Innovation Relationship*. Ottawa: The Innovation Journal: The Public Sector Innovation Journal, Vol. 15(3)
7. Borins, Sandford (2010). *Innovation as Narrative*. Cambridge: Ash Institute for Democratic Governance and Innovation and John F. Kennedy School of Government Harvard University
8. Borins, Sandford, [ed.] (2008). *Innovations in Government: Research, Recognition, and Replication*. Washington: Brookings Institution Press and Ash Institute for Democratic Governance and Innovation
9. Borins, Sandford (2001). *Innovating with Integrity: How Local Heroes are Transforming American Government*. London: Routledge, International Public Management Journal, Vol. 4, p.109-113, Book review
10. Cantwell, John (2004). *Innovation and Competitiveness*. In Fagerberg, Jan; Mowery, David C.; Nelson, Richard R. [Eds.]. *The Oxford Handbook of Innovation*. OUP Oxford
11. Cozzens, Susan; Kaplinsky, Raphael (2009). *Innovation, Poverty and Inequality Cause, coincidence, or co-evolution?* In Lundvall, Bengt-Åke; Joseph, K. J.; Chaminade, Cristina;

Vang, Jan [Eds.]. *Handbook Of Innovation Systems And Developing Countries Building Domestic Capabilities in a Global Setting: Building Domestic Capabilities in a Global Setting*. Edward Elgar Publishing

12. Dutta, Soumitra [ed.]. *Global Innovation Index 2012: Stronger Innovation Linkages for Global Growth*. INSEAD and the World Intellectual Property Organization (WIPO)
13. Drucker, Peter (2007). *Innovation and Entrepreneurship: Practice and Principles*. Oxford: Butterworth-Heinemann. Imprint
14. Eggers, William D.; Singh, Shalabh K. (2010). *The innovator's playbook: Nurturing bold ideas in government.* Deloitte Research and Harvard Kennedy School of Government, Ash Institute for Democratic Governance and Innovation
15. Eggers, William D.; Singh, Shalabh K. (2009). *Innovation State: The Public Innovator's Handbook*. Deloitte Rewiev, Issue 4, Deloitte Research, p.73-85
16. Frederickson, George H.; Johnston, Jocelyn M. (1999). *Public management reform and innovation: research, theory, and application*. Tuscaloosa: University of Alabama Press
17. Glor, Eleanor (2008). *Toward Development of a Substantive Theory of Public Sector Organizational Innovation*. Ottawa: The Innovation Journal: The Public Sector Innovation Journal Volume, Vol. 13(3)
18. Glor, Eleanor (2007). *Applying Innovative Processes to Improve Governance and Public Administration and Reduce Poverty.* The Innovation Journal: The Public Sector Innovation Journal, Vol. 12(2)
19. Glor, Eleonor (2006). *A Gardener Innovator's Guide to Innovating in Organizations*. Ottawa: The Innovation Journal, Books
20. Gray, Virginia (1973). *Innovation in the states: A diffusion study*. Washington: American Political Science Association, The American Political Science Review, Vol. 67 (4) p.p. 1174-1185.
21. Grindle, Merilee S. (2004). *Good Enough Governance: Poverty Reduction and Reform in Developing Countries.* Wiley Online Library, Governance, Vol. 17(4)
22. Gruening, Gernod (2001). *Origin and theoretical basis of New Public Management*. London: Routledge, International Public Management Journal, Vol. 4(1), p.p.1-25
23. Harris, Michael; Albury, David (2009). *The Innovation Imperative: Why radical innovation is needed to reinvent public services for the recession and beyond*. London: National Endowment for Science Technology and Arts-NESTA, Discussion Paper
24. Hartley, Jean (2005). *Innovation in Governance and Public Services: Past and Present.* Routledge: Money & Management, Vol. 25(1)
25. Hood, Christopher (1995). *The "New Public Management" in the 1980s: Variations on a Theme*. Oxford: Accounting, Organizations and Society Journal, Vol. 20, No. 2/3, p.93-109
26. Hood, Christopher (1991). *A Public Management for All Seasons*. Oxford: Blackwell Publishing Public Administration, Vol. 69, p.p. 3-119
27. Howells, Jeremy (2005). *Innovation and regional economic development: A matter of perspective?* Elsevier: Research Policy, Vol. 34(8)
28. IDeA (2005). *Innovation in Public Services Literature Review*. London: Idea Knowledge
29. Kemp, René; Loorbach, Derk; Rotmans, Jan (2007). *Transition management as a model for managing processes of co-evolution towards sustainable development*. Taylor&Francis, International Journal of Sustainable Development & World Ecology, Vol. 14(1)
30. Khan, Khalim Nadeem; Akif, Syed Abu Ahmed (2005). *The Quality of Public Sector Management and Economic Inequality*. in Raza, Ahmad [ed.] (2006). *The Role of Public Administration in Building a Harmonious Society: Selected proceedings of the Annual Conference of NAPSIPAG*. Philippines: Asian Development Bank, Network of Asia-Pacific Schools and Institutes of Public Administration and Governance. Annual Conference, Bejing, 5-7 December 2005
31. Klein, Peter; Mahoney, Joseph; McGahan, Anita; Pitelis, Christos (2010). *Toward a Theory of Public Entrepreneurship.* Hampshire: EURAM Macmillan Publishers, European Management Review, Vol. 7, p.p. 1-15
32. Lee, Sang M.; Hwang, Taewon; Choi, Donghyun (2012). *Open Innovation in the public sector of leading countries*. Emerald Group Publishing, Management Decision, Vol. 50(1), pp. 147-162

33. Luke, Belinda; Verreynne, Martie-Louise; Kearins, Kate (2010). *Innovative and entrepreneurial activity in the public sector: The changing face of public sector institutions.* Maleney: Innovation: Management, Policy & Practice Journal. Vol.12, p.p. 138-153
34. Lundvall, Bengt-Åke (2010). *National Systems of Innovation: Toward a Theory of Innovation and Interactive Learning*. London and New York: Anthem Press
35. Mason, Peter (2006). *Public Innovators and Entrepreneurship in the Public Sector*. Brighton: Pavilion publishing, The British Journal of Leadership in the Public Sector, Vol. 2(1)
36. McLaughlin, Kathleen; Osborne, Stephen P. (2001). *New Public Management*. London and New York: Routledge
37. Mihaiu, Diana Marieta; Opreana, Alin; Cristescu, Marian Pompiliu (2010). *Efficiency, Effectiveness And Performance of the Public Sector*. Bucharest: Institute for Economic Forecasting, Romanian Journal of Economic Forecasting, Issue 4
38. Morgan, Kevin (2007). *The Learning Region: Institutions, Innovation and Regional Renewal.* Routledge, Regional Studies, Vol. 41
39. Mowery, David; Oxley, Joanne (1995). *Inward technology transfer and competitiveness: the role of national innovation systems.* Oxford: Cambridge Journal of Economics, Vol. 19(1), pp. 67-93.
40. Mulgan, Geoff (2007). *Ready or not? Taking innovation in the public sector seriously*. London: National Endowment for Science Technology and Arts-NESTA
41. Mulgan, Geoff; Albury, David (2003). *Innovation in the Public Sector*. London: UK Government, the Strategy Unit in Cabinet Office. Draft discussion paper, ver 1.9 (Oct.2003)
42. NESTA (2006.) *Innovation Gap Report: Why policy needs to reflect the reality of innovation in the UK*. London: National Endowment for Science Technology and Arts-NESTA, Research Report
43. Newman, Jenet (2001). *Modernizing Governance: New Labour, Policy and Society*. London: SAGE Publications
44. OECD (2012). *Innovation for Development: A Discussion of the Issues and an Overview of Work of the OECD Directorate for Science, Technology and Industry*. Paris: OECD
45. OECD (2011). *Innovation in Public Sector Delivery: Context, Solutions and Challenges.* Paris: OECD-Public Governance and Territorial Development Directorate, Report of the Public Governance Committee from the Special Session Innovation in Public Service Delivery, 14-15 April 2011, GOV/PGC(2011)/4
46. OECD (2009). *Innovation In Public Services: Working Together With Citizens For Better Outcomes*. Paris: OECD-Public Governance and Territorial Development Directorate, Draft Outline for the Report of the Public Governance Committee, 09 October 2009, GOV/PGC/RD(2009)6
47. OECD (2007). *Innovation and Growth: Rationale for an Innovation Strategy*. Paris: OECD
48. Ocampo, Romeo B. (1992). *Models of Public Administration Reform: New Public Management (NPM),* Philippines: Eastern Regional Organization for Public Administration, Asian review of public administration, Vol. 4, p.p.248-255
49. Osborne, David; Geabler, Ted (1993). *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector*. New York: Penguin
50. Osborne, Stephen; Brown, Kerry (2005). *Managing Change in Public Sector Organisations.* New York: Routlage
51. Pansera, Mario (2013). *Innovation system for sustainability in developing countries: the renewable energy sector in Bolivia*. Olney (UK): Interscience Enterprises, International Journal of Innovation and Sustainable Development, Vol. 7(1), pp. 27-45
52. Parker, Rachel; Bradley, Lisa (2004). *Bureaucracy or Post-Bureaucracy? Public Sector Organisations in a Changing Context*. Hong Kong: The Asia Pacific Journal of Public Administration, Vol. 26(2), p.p.197-215
53. Peilei, Fan (2011). *Innovation capacity and economic development: China and India*. Springer, Economic Change and Restructuring, Vol. 44(1), pp. 49-73
54. Peters, Guy; Pierre, Jon (2001). *Politicians, Bureaucrats and Administrative Reform.* Abingdon (UK): The Routledge ECPR Studies in European Political Science
55. Pollitt, Cristopher; Bouckaert, Geert (2000). *Public Management Reform: A Comparative Analysis*. Oxford: Oxford University Press

56. Pollitt, Christopher (2013). *Betteran oblique comment on the World Bank's … Back in the OECD Results from Public Sector Institutions.* SAGE Publications: International Review of Administrative Sciences, Vol. 79(3), p. 406-412;
57. Potts, Jason (2009). *The innovation deficit in public services: The curious problem of too much efficiency and not enough waste and failure*. Maleny: Innovation- Management, Policy & Practice Journal, Vol. 11, p.p. 34–43
58. Prasada, Reddy [ed.] (2010). *Global Innovation in Emerging Economies*. New York: Routledge
59. Raza, Ahmad [ed.] (2006). *The Role of Public Administration in Building a Harmonious Society: Selected proceedings of the Annual Conference of NAPSIPAG.* Philippines: Asian Development Bank, Network of Asia-Pacific Schools and Institutes of Public Administration and Governance. Annual Conference, Bejing, 5-7 December 2005
60. Sachs, Jeffrey (2003). *The Global Innovation Divide.* In Jaffe, Adam B.; Lerner, Josh; Stern, Scott [Eds.]. *Innovation Policy and the Economy*. MIT Press, Vol. 3
61. Samaratunge, Ramanie; Alam, Quamrul; Teicher, Julian (2008). *The New Public Management reforms in Asia: a comparison of South and Southeast Asian countries.* SAGE Publications: International Review of Administrative Sciences, Vol. 74(1), p. 25–46;
62. Schnellenbach; Jan (2007). *Public entrepreneurship and the economics of reform.* Cambridge: Journal of Institutional Economics, Volume 3(2), p.p.183-202
63. Shockley, Gordon; Frank, Peter; Stough, Roger (2006). *Toward a Theory of Public Sector Entrepreneurship.* Olney (UK): Interscience Enterprises, International Journal of Entrepreneurship and Innovation Management, Vol. 6(3)
64. Singhi, Narendra Kumar (1974). *Bureaucracy, positions and persons: role structures, interactions, and value-orientations of bureaucrats in Rajasthan.* New Delhi: Abhinav Publications
65. Smelser, Neil. J.; Wright, James; Baltes, Paul. B. (2001). *International Encyclopedia of Social & Behavioral Sciences*. London: Elsevier
66. Soubbotina, Tatyana (2000). *Beyond Economic Growth: Meeting the Challenges of Global Development: Meeting the Challenges of development*. Washington: IBRD/The World Bank
67. Švrac, Jadranka (2006). *Socio-political factors and the failure of innovation policy in Croatia as a country in transition.* Elsevier, Research Policy, Vol. 35(1)
68. Thompson, Victor A. (1969). *Bureaucracy and Innovation*. Tuscaloosa: University of Alabama Press
69. UNDP (2013). *Human development Report 2013 - The Rise of the South: Human Progress in a Diverse World*. New York: UNDP
70. United Nations (2012). *World Economic Situation and Prospects 2012*. New York: United Nations publication
71. United Nations (2011). *Report of the Secretary-General on innovative mechanisms of financing for development*. New York: United Nations, Report of the Secretary-General (A/66/334, 1 September 2011)
72. United Nations (2006). *Innovations in governance and public administration: replicating what works*. New York: Department of Economic and Social Affairs, No. ST/ESA/PAD/SER.E/72
73. Wagner, R.E. (1966). *Pressure groups and political entrepreneurs: a review article.* Springer, Public Choice, pp.161-170
74. Walker, Richard M.; Damanpour, Fariborz; Devece, Carlos A. (2011). *Management Innovation and Organizational Performance: The Mediating Effect of Performance Management.* Oxford: Public Management Research Association, Journal of Public Administration Research and Theory, Vol. 21(2), p.p.367-386
75. Wanna, John; Forster, John; Graham, Peter (1996). *Entrepreneurial Management in the Public Sector*. Melbourne: Macmillan Education
76. Weber, Max (1997). *The theory of social and economic organization*. New York: Simon and Schuster and The Free Press, Reprint
77. Williams, Logan; Woodson, Thomas (2012). *The Future of Innovation Studies in Less Economically Developed Countries*. Springer, Minerva, Vol. 50 (2)
78. Windrum, Paul; Koch, Per M. (2008). *Innovation in public sector services: entrepreneurship, Creativity and Management.* Cheltenham (UK) and Northampton (USA): Edward Elgar Publishing
79. World Economic Forum (2011). *Global Competitiveness Report 2011-2012*. Geneva: World Economic Forum

EMPIRICAL TESTING OF THE PERCEIVED VALUE CONCEPT FOR THE HEALTH CARE SERVICE – PRESENTATION OF A MEASURING INSTRUMENT

Teodor Pevec, ms.sci, phd student

general hospital Ptuj, faculty of economy and marketing, Maribor

teodor.pevec@sb-ptuj.si

Aleksandra Pisnik, phd, faculty of economy and marketing, Maribor

Abstract

The global economy is service-oriented. The knowledge of the perceived value in the service-oriented economy is rising fast. We can even say, that that the concept of the perceived value is one of the main subjects of study in the marketing literature. Even though, that the literature on the perceived value concept for the health care service is scarce, there is no reason, why the healthcare service shouldn't be considered the same way as other services.

This is the reason why we developed a conceptual model, with which we are trying to define the perceived value construct for the health care service and at the same time empirically test it.

With the help of a qualitative study and the knowledge from the literature a working questionnaire was developed, which was our measuring instrument.

In the next faze the questionnaire was calibrated. The calibration was conducted with a pilot study of which results were analyzed in a way that the internal consistency of the measuring instrument was measured.

The concept of the perceived value of a service can also be transferred to the health care service. We believe that with the help of our perceived value model we could see all the factors that effect on the patient and his treatment, and simultaneously improve them.

Keywords: *perceived value, health service, statistical analysis*

1. Introduction

After a short description of the all elements which could influence on perceived value, we constructed or conceptual model.

The perceived value is defined as the costumer's evaluation of the usefulness of the perceived benefits and the perceived sacrifices (Zeithaml, 1988).That is, consumers may cognitively integrate their perception of what they get (benefits) and what they have to give up (sacrifices). In the health care, benefits are the results of a good quality service in both the outcome and process domains. Like the service quality assessment, the perceived value has besides emotional components also cognitive components. However, unlike the quality assessment, the perceived value requires the trade-of between the benefits and sacrifices.

The perceived service quality is the consumers overall perception about quality of a particular product of service in comparison to other available services (Chanal, 2010). The definition of service quality is the customer's overall impression or assessment concerning the relative inferiority or superiority of the organization and its services (Zeithaml, 1988; Bitner and Hubbert, 1994).

The reputation is an intangible and a very important asset to an organization, it also has a positive influence on a costumer perception on value of a product, on a costumer's loyalty, trust and confidence (Pisnik, 2008).

A doctor's reputation positively influences both on the patient's trust and satisfaction (Torres et al, 2009).

The results of Wu (2011) revealed that the hospital's brand image has both, a direct and indirect effect on a patient's loyalty. It means that a positive brand image, not only increases a patient's loyalty directly, but it also improves the patient's satisfaction.

Sacrifices from the patient's perspective can be divided into two types: the price that the patient has to pay and nonmonetary costs such as time spent and the mental and physical stress experienced in receiving the care. The nonmonetary costs are substantial in the healthcare services sphere due to the queues and waiting lists that occur, especially in the public system.

Oliver (1997) noted that satisfaction is a general psychological state, and is usually the result of emotional expectations and the experience from former shopping behaviors. Moreover, the patient satisfaction is a critical indicator for the health care service organizations. The providers of a medical service need to understand the patient's expectations and try to meet these (Lee et al., 2010). For hospitals, satisfied patients are important because they are more likely to keep using the medical service, follow the prescribed treatment plan, maintain the relationship with a specific health care provider, and recommend the hospital to other users (Hekkert et al., 2009).

The satisfied patients prefer the same hospital for the same or different treatments and may recommend it to their friends and relatives, unlike dissatisfied patients, who may discontinue their treatment from the same hospital. Despite this significance, the public healthcare organizations take the value of loyalty for granted. Namely loyal patients can add to their success. In other words, a patient's loyalty is essential for healthcare units to retain patients and to survive in the competitive market (Chanal&Bala, 2010).

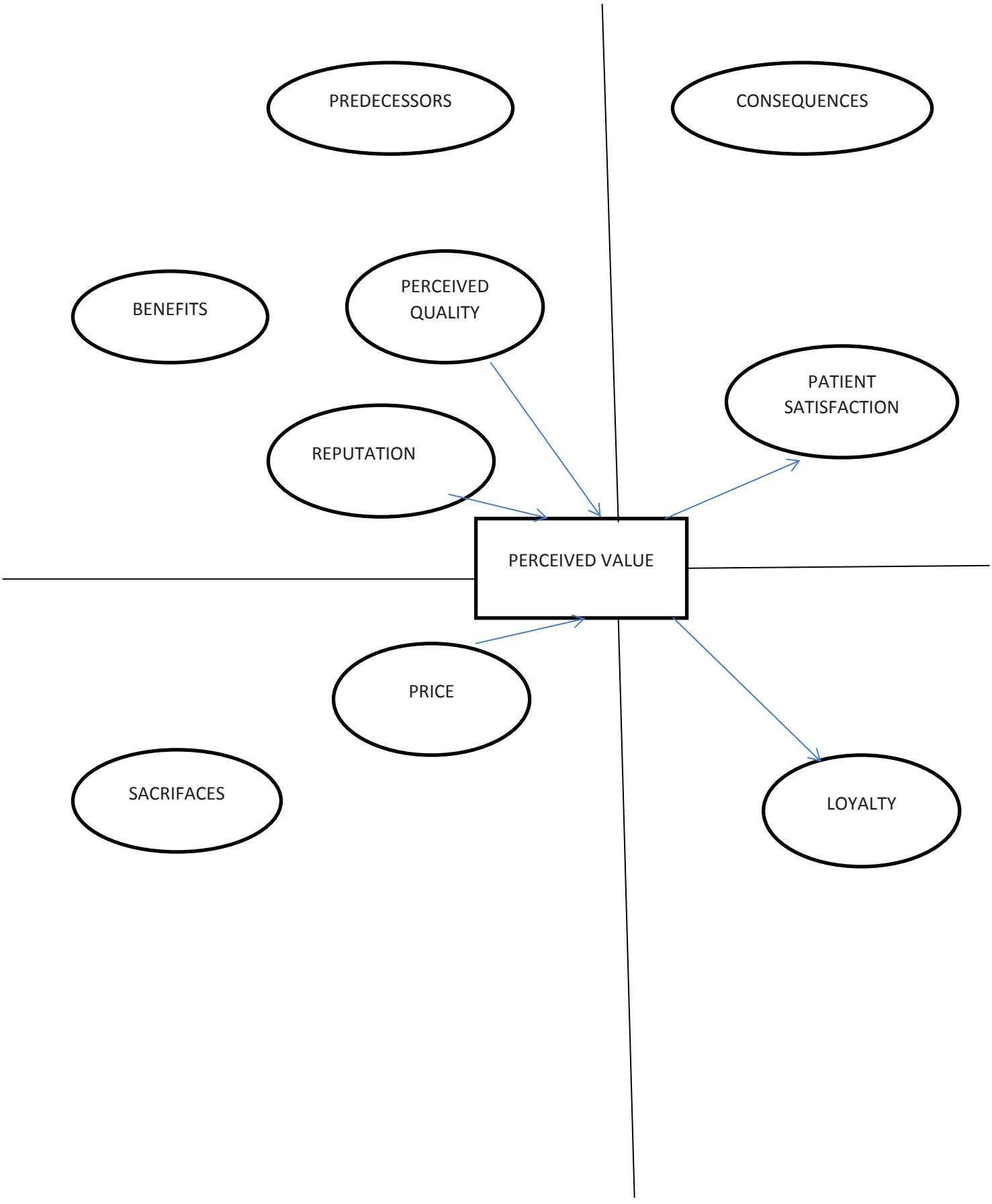

PREDECESSORS
CONSEQUENCES
BENEFITS
PERCEIVED QUALITY
PATIENT SATISFACTION
REPUTATION
PERCEIVED VALUE
PRICE
SACRIFACES
LOYALTY

Figure 1.1 Conceptual model

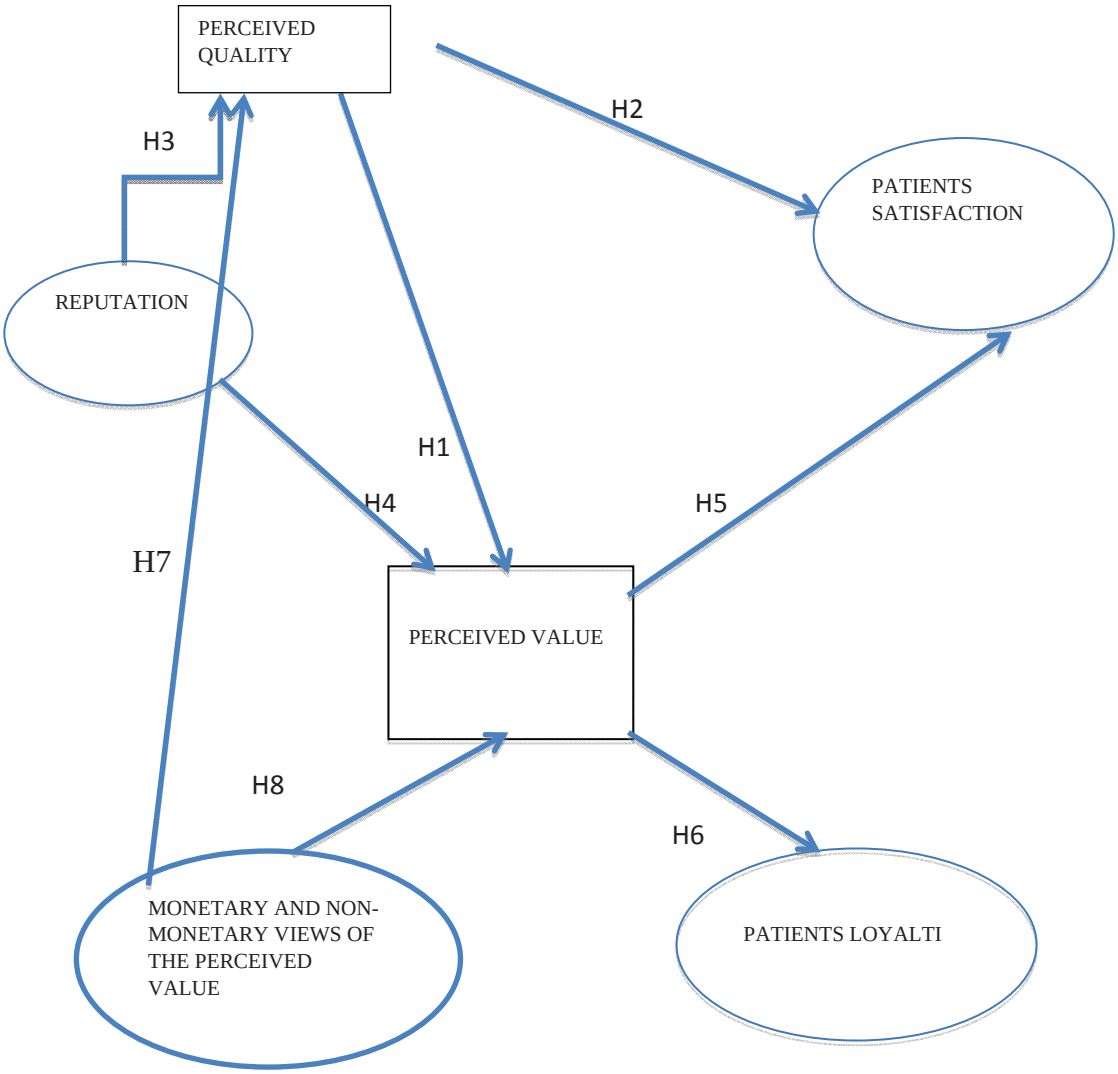


Figure 1.2: The conceptual model with hypotheses

The perceived quality is the user's perception of quality of a service compared to the quality of other service providers (Chenal & Bala, 2010). Different authors suggest a connection between the perceived quality and the perceived value of a service, where a higher perceived quality leads to a higher perceived value.

Other authors as for example Cronin et al (2000), suggest, that in the addition of the direct impact of the perceived quality to the perceived value of a service, the perceived quality also influences on the overall users satisfaction.

From this point of view we can derive the first two hypotheses (Fig 2.)

H1: The higher the perceived quality of the health care service, the greater is the perceived value of that service.

H2: The higher the perceived quality of the health care service, the greater is the satisfaction of the patients.

Reputation has an important role in the distinction between different health care providers (Shanti, 2006). There exist direct and indirect influences of reputation that can affect the success of the health care provider. Researchers Chen (2009) and Wood (2000), described a positive link between the reputation and the perceived value and quality of the service. We can also expect the same results for the health care services, therefore we can derive the next hypotheses:

H3: The better the reputation of the health care service provider, the higher is the perceived quality of that service.

H4: The better the reputation of the health care service provider, the higher is the perceived value of that service.

The higher perceived value of the service leads to a more satisfied costumer or user. Regarding time duration the success of a service provider is linked to the loyalty of the users. Atilgan et al. (2005) believe, that the loyalty of the users is strongly influenced by the perceived value of the service. We can expect the same for the health care services, from this we can derive the fifth and sixth hypotheses:

H5: The higher the perceived value of the health care service, the greater is the satisfaction of the patients.

H6: The higher the perceived value of the health care service, the greater is the loyalty of the patients.

More doubts arise when we want to describe the connection between the perceived quality of the service and its price.

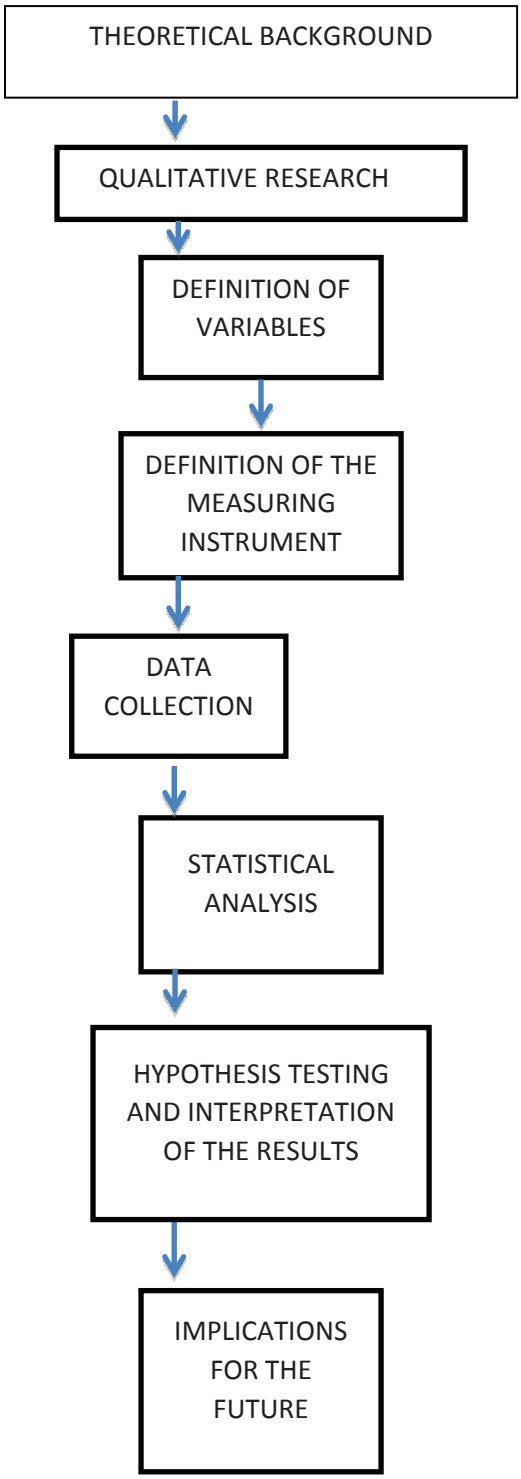
Hussey et al (2013, pg. 27), in his metaanalysis, which contains all relevant analyses of effect of price on the quality of health care services, concluded, that the link is inconsistent and it can be either positive or negative. On the other hand, many researchers (e.g. Dodds, Monroe & Grawal, 1991; Pisnik Korda 2000) suggest, that a higher price leads to a higher perceived value of the service. From this our hypothesis is as follows:

H7: the higher the perceived price of the health care service, the higher is the perceived quality of that service.

Because the perceived price is a part of the equation of the definition of the perceived value, we would expect that the connection between the two is negative. However, the frequency of study of these connections is rare and the results are a lot of times inconsistent. We can assume that the connection is negative and from this we can derive our final hypothesis:

H8: the lover is the perceived price of the health care service, the higher is the perceived value of that service.

2. Research conduct



3. Qualitative research

After the review of the knowledge from the current literature we undertake the qualitative research. With a preliminary research we also wanted to further clarify the research model and its parameters.

We used the method of individual interviews. With this method we avoid some of the pitfalls offered by the method of group interviews, which would be another option. The first advantage would be an easier logistical derivation. Group interviews are more complicated to organize, Aaker and Day (1990, adapted from Rus2013) suggest that the problem is to organize the meeting for all the participants on the same place at the same time. Malholtra and Birks (2007, adapted from Rus 2013) think that the main weakness of the group interview is the humility of the participants, this is why they describe less than they usually would. This problem is eliminated with an individual interview. Group interviews also give less information about the individual participant, because not all of the participants comment on each particular topic (Sudman&Blair ,1998, povzeto po Rus 2013).

None of the individual interview participants has been a participant of a similar research, yet. This way we have eliminated the problem of so called “professional participants”. Malholtra and Birks (2007, adapted from Rus 2013) suggest that the person who already took a part of a qualitative research is not suitable to participate in the similar research for the second time.

4. Definition of the measuring instrument

Once we have prepared all the theoretical foundations, we prepare a questionnaire, our measuring instrument, in which a number of questions are included. From the working questionnaire, with a help of the process of validation we get to the purified final questionnaire or measuring instrument.

The quality of the measurement is linked to the reliability and validity of the measuring instrument.

Ferligoj et al (1995) note that the reliability of the measurement identifies the presence of random errors, and that the validity of the measurement the presence of systematic errors.

The reliability of the measurement is defined as the ability to acquire, and to measure the same values during repeated measurements of the same units. It is known that during the measurement we always encounter on certain degree of random errors.

The reliability of the measurement is estimated by various methods, Ferligoj et al. (1995).

The method of retesting and repetiting of the measurement of a certain variable for the same units is made after a certain time. This is the method of confirming the reliability of the instrument, in terms of stability. With the method of alternative scales we repeat the measurements using different forms of measuring. In terms of equivalence, the method of halving is used to assess the reliability of the measurement. At the end we use the method of internal consistency, which will be explained further in the text.

It should be noted that a completely perfect reliability cannot be achieved. We can improve it. It can be improved in different ways. Namely, by clearly defining the construct, by having precise measuring scales, by increasing the number of dimensions of the particular construct and conducting a pilot study.

Internal consistency refers to the degree (Cortina, 1993) of mutual correlation between the variables. With this method there is no need for repeating the measurements. The method provides a uniform assessment of the reliability. The coefficient, which is commonly used is the Cronbach's coefficient alpha.

Šifrer (2013) notes, that the coefficient alpha is not the only possible assessment of the reliability. It can also be inappropriate and inadequate, because it does not provide the information of other errors (it captures only the random errors). The coefficient alpha can take the values between 0 and 1. As a rule, we talk about a high reliability when the alpha is equal to or greater than 0.8, while a medium reliability means an alpha between the value of 0.6 and 0.8. We cannot always talk about an appropriate level of reliability, but we must always provide the information about reliability and the method of measuring it.

With the method of internal consistency we perform an exploratory (further as EFA) and confirmatory factor analysis (further as CFA). The factor analysis was developed by Charles Spearman in the early 20th century. It is used to reduce the number of questions in a questionnaire and to reveal the connections between the components of the questionnaire. The EFA reveals the correlation between individual questions, while the CFA reveals how are the results connected to the hypothetical model.

If the questionnaire of the model has already been verified,the CFA has advantage over the EFA. The CFA analysis is performed to determine whether the structure of the questionnaire

remains unchanged when used in different populations. The use of the CFA (Gerbing, Anderson, 1985) allows stricter interpretation of suitability of the measuring instrument.

5. Statistical analysis

To statistically analyze the characteristics of the measured variables we will use the methods of univariate, bivariate and multivariate statistical analysis. In the next step of verifying the hypotheses of the conceptual model we will use the structural equation modeling (further as SEM), which combines the analysis of causal links and the measurements of the indirectly measurable variables (latent), in this manner we can test the suitability of the theoretically set conceptual model with empirical data. The aim of structural equation modeling is to find the most parsimonic model, which can explain as mmany as possible impacts between the variables in the model. Because the SEM method allows us to test and compare multiple nested models, we will begin our analysis with the zero structural model, where we do not assume any links between the constructs. We will continue our analysis to find a more limited model. The advantage of the SEM method is in testing the conceptual model as a whole and not only as connections between individual variables or group of variables. The Hypotheses will be tested in the structural model all together at the same time. The basis for validation of hypotheses will be the calculated coefficients beta and gamma, and indices of the adequacy of the overall model (GFI, NNFI, and NFI).

The structural equation modeling will be conducted through these next phases:

- the identification of the model,
- determining the distribution of the variables,
- choosing the method according to the evaluation of the model,
- evaluation of the measurement model,
- evaluation of the overall adequacy of the structural model,
- assessment of the latent variables in the model,
- examination of the possibilities of modifying the model,
- the possibility of modifying the model in accordance with the principles parsimonity and the theoretical results.

For the analysis of all the listed methods we will use the appropriate software, the latest version of SPSS statistical analysis package, with the corresponding programme AMOS and, if necessary, a LISREL software package.

6. Conclusions

The knowledge of the concept of the perceived value is increasing in the field of marketing rapidly. However the concept itself can be rarely, if at all, found in the health care literature. In medicine, only the concept of quality can be detected. From this point of view, with our conceptual model of the perceived value we can contribute to science mainly, because our model transfers the knowledge of marketing science to the field of the relationship between the health care provider and the patient.

In our work we introduced the key elements of our conceptual model of the perceived value and the way how to empirically investigate this model and to analyse all the links among the model elements.

The results will show the antecedents as well as consequences of the perceived service value model. Taking both factors of the model into account, this can also be our contribution to the science in the field of health care.

7. Literature

1. Aaker DA, Day GS. (1990). Marketing research (4th ed.). New York: John Wiley & Sons.
2. Atilgan E., Askoy S., Akinci S. (2005). Determinants of the brand equity: a verification approach in the beverage industry in turkey. *Marketing Intelligence and Planning 23*(3): 237-48.
3. Bitner MJ, Hubbert AR. (1994). *Encounter satisfaction versus overall satisfaction versus quality: the customer's voice.* In RT Rust, RL Oliver (Eds.). Service quality: New directions in theory and practice. Thousand Oaks: Sage Publications.
4. Chen Y. S. (2009). The drivers of green brand equity: green brand image, green satisfaction and green trust. *Journal of Business Ethics, 93*(2): 307-19.
5. Chenal H., Bala M. (2010). Significant components of service brand equity in healthcare sector. *International Journal of Health Care, 25*(4), 343-362.
6. Cortina JM, 1993. What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, Vol 78(1), 98-104.
7. Cronin J. J., Brady M. K., Hult G. T. M. (2000). Assesing the effects oif quality, value and costumer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*(2): 193-215.
8. Dodds W. B., Monroe K. B., Grewel (1991). Effects of price, brand, and store inforamtion on buyer product evaluatons. *Journal of marketing research, 28*(3): 307-19.
9. Ferligoj A, Leskovsek K, Kogovskek T,1995. Zanesljivost in veljavnost merjenja. Ljubljana: Fakulteta za družbene vede.
10. Gerbing DW, Anderson JC, 1988, An Updated Paradigm for Scale Development Incorporating Unidimensionality and its Assensment. *Journal of Marketing* Research, 25, 186-192
11. Hekkert KD, Cihangir S, Kleefstra SM, van den Berg B (2009). Patient satisfaction revisited: a multilevel approach. *Soc. Sci. Med., 69(1),* 68-75.
12. Hussey S. P., Wertheimer S., Mehrota A. (2013). The association between health care quality and cost. *Annals of internal Medicine, 158*(1): 27-35.
13. Lee WI, Chen CW, Chen TH, Chen CY (2010). The relationship between consumer orientation, service value, medical care service quality and patient satisfaction: The case of a medical center in Southern Taiwan. *Afr. J. Bus. Manage, 4(4),* 448-458.
14. Malholtra N.K., Birks D.F. (2007). Marketing research: An applied approach (3rd ed). Harlow: Pearson Education Limited.
15. Oliver RL (1997). *Satisfaction: A behavioral perspective on the consumer*. New York: McGraw-Hill.
16. Pisnik Korda A. (2000). *Vplivni dejavniki na zanano vrednost izdelka.* Magistrsko delo. Maribor: Ekonomsko-poslovna fakulteta Maribor.
17. Pisnik Korda A. (2008). *Oblikovanje in empirično preverjanje modela zaznane vrednosti izdelka.* Doktorska disertacija. Maribor: Univerza v Mariboru, Ekonomsko-poslovna fakulteta.
18. Rus M. (2013). Odnos porabnikov do vplivov embalaže na naravno okolje. Magistrsko delo
19. Shanti N. M. (2006). *Branding Services Indian Perspective*. 1st ed. The ICFAI University Press Hyderabad, pp. 90-191.
20. Šifrer R. 2013, Metode merjenja zanesljivosti in veljavnosti konstrukta "Mnenje državljanov o spoštovanju zakonov", Magistrsko delo, Fakulteta za organizacijske vede Maribor, Kranj
21. Sudman S, Blair E. (1998). Marketing Research: A Problem – solving approach. Singapore: McGraw-Hill Book Co.

22. Torres E, Vasquez-Parraga AZ, Barra C. (2009), The Path of Patient Loyalty and the Role of Doctor Reputation. *Health Marketing Quarterly, 26(3),*183-197.
23. Wood L. (2000). Brands and brand equity: definition and management. *Manegement Decision* 38(9): 662-669.
24. Wu CC, (2011). The impact of hospital brand image on service quality, patient satisfaction and loyalty. *African Journal of Business Management 5(12),* 4873-4882.
25. Zeithaml VA. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *J. Mark., 52(3),* 2-22.

WHISTLEBLOWERS IN ORGANIZATIONS: WHAT TELL US CROATIAN MANAGEMENT STUDENTS OPINION?

Every normal human being should report about criminal and corruption. If you do not report you become a part of this.

Famous whistleblowers in Croatia Vesna Balenović & Jasmina Jovev

Mario BOGDANOVIĆ, Ph.D.[195]

Abstract

This paper deals with the attitude about whistleblowing/whistleblowers and with potential reaction on the organization unapropriate/unethical behavior among master management students in Republic Croatia.The goal of this paper was to research what are the attitudes of future business managers, and what is the potential way they will react if they are in situation to „blow the whistle".

The measurement of whistleblowers/whistleblowing attitudes and potential reactions in the future was conducted in December 2014, included 121 master students on the course Business Ethics who studied on the Faculty of Economics University in Split, Croatia. As measurement instrument was used questionnaire with questions about whistleblowers attitude (3 items), whistleblowing attitude (2 items) and potential type of whislteblowing reaction (8 items), i.e. external reaction (4 items) and internal reaction (4 items) created by author. The main results showed:

a) *The general attitude toward whistleblowing and whistleblowers are in general positive (M=3,77; s=0,75). Total whistleblowing reaction on fictive unfairness was somewhat lower (M=3,28, s=0,69). Moral opinion about whistleblowing/whistleblowers was slightly but significant connected with potential whistleblowing reaction (r=0,40; p<0,01).*
b) *Female examinee showed statistically significant more trust/confidence into management (the both i.e. first management level and highest level), and were statistically significant more prone to internal and total whistleblowing than male examinee (all statistically significant diferences were on p<or= 0,01 level).*
c) *Examinee who has organizational exeperience were statistically significant more convinced in moral attitude „Whistleblowing is good thing for public interest" and more prone to potential external reaction by using informationns channels outside the organization, than those examinees without such experience (the both statistically significant diferences were on p<0,05 level).*

According to the obtained research results, it is proposed what managers can do to benefit from whisteleblowing phenomenon in their organizations because of the fact that whistleblowing can not be avoided and because punishing the whistleblowers is quite bad strategy for organization and management (economically and socio- psychological).

Key words: *Whistleblowing, ethical climate/culture, whistleblowers attitude, whistleblowing reaction, organization and management improvement, organizational development, business ethics, human resource development.*

[195] Faculty of Economics University of Split, Cvite Fiskovića 5, 21.000 Split, Republic of Croatia, e-mail: mario.bogdanovic@efst.hr.

1. Introduction

Whisteblowing is for business, organization and management an interesting but complex phenomenon that appears to be occurring with greater frequency throughout the world. In numerious examples due to external whistleblowers activity the public get acquinted with ethical and low abuses in business and governmental organizations. As honest people we thanks to the whistleblowers because thay teach us about violation of low, misuse of public funds, falsifying of documents, mismanagement, misuse of public facilitites, questionable research activities, excessive spending, censorships (Soaken& Soaken, 1986) unsafe products, corruption, waste of all resources (material, financial, human), ecological misuses, and in general we learn about „dark side" of business, organization and management in numerious existing forms.

Heroic individuals in spite of severe resistence of the organization protest against uncorrect doing in the attemt to correct uncorrect doing, and to direct organizations on the right way. So internal and external whistleblowers have potential to be teachers (canselors) and direction suggesters in institutional and systemic changes. Namely, although there exist low (who prescribes what should not be done) and ethical codes (who prescribes that something what is uncorrect should not even come in mind), when they are violated, whisleblowers are correctors of socialy unapropriate doing. Although whistleblowers can provoke unpleasantness in shorttime, they speak about the organization ideals and better system, from longterm, sustainabe socio-economic perspective. Namely, whistleblowers identify uncorrect doing and take action against bad (criminal and/or unethical) doing, exposing himself to the great social risk.[196] Because of this risk they should be awarded in the same maner as entrepreneurs are awarded for their business risk because whistleblowers are in fact cardinal factor of growth and development of organizations and social systems. Ideal ethical situation is that all people/employees react as whistleblowers and that it is normal to report criminal and corruption as utmost pathological unethical behavior. Statistics about whistleblowers shows that they are persons who are good educated, dedicated to his job, in fact good and reliable employees. Many whistleblower are people of high working performances, relatively good payed and they feel to be invited to report about wrong doing in organization according his own morality (moral ideology)[197], and in general they believe that on their job in organization, from them it is expected that whistleblowing is moral act on benefit to their organization (Ottensmeyer&McCarty, 1996, p. 424&434).

Although the fact that whistleblowers want to improve the work of organization and system, although they may have good, noble intention, they regularly experience retailation (harassment from superiors, monitoring of activities, removal of job responsibilities, loss of job, harassment from peers, change in type of position, monitoring the communications, demotion, legal action, psychiatric or medical referral, decrease in salary, forced retirement, sexual harassment, homicide threat (Soaken&Soaken, 1986), they are also usually exposed to job ostracism (Wu at al., 2012).
Dare to tell the truth it often dangerous, but there is in fact the greatest development potential and possiblity to change on the better, because when the organization/system is in truth every problem resolve from himself (Hawley according Lučić, 2013).[198]

Organizations and management do bad/wrong thing if on the truth they react with ignoring, lying, husing up and maltreatment of whistleblowers who in fact are the people with incerased

[196] This whistleblowers social risk is so great that former President of Republic Croatia professor Ivo Josipović told in 2014. to the media that whistleblowers are the people who have serious problem with their inteligence.

[197]Today in organizational life exist many moral ideologies the famoust are: idealism, ralativism, machiavelianism, golden ethical rule, narcism, utilitaranism, cost-benefit analysis and altruism (cf. (Chudziska-Czupala, 2013).

[198] Paraphrased the great writer Miroslav Krleža and Ivo Andrić (nobel price bearer) „Ly is a religion of master and slaves, the truth is religion of strong and free human beeings."

vigilance and courage. The fact that organization and management has doing wrong, although is cognitive and emotional unpleasant, in fact is liberatoring because the true change on the better is possible only by knowing the facts, and with promotion and awarding the moral-heroes-whistleblowers. Therefore it is shame to depict „blowers in the whistle“ as troublemakers and harrase them. Although whistleblowers are obviously very unpleasant problem for management, in fact thay are organizational blessing because they enables deeper insight in the problem which otherwise never will start to resolve it.

It is unusuall fact theat in spite of very bad treatment of whistleblowert (e.g.repression and retailiation), only in United States of America there are several hundert of thousand whistleblowers in all the spheres of organizational life (Ettore according Ottensmeyer&McCarty, 1996, p. 427). So it is real and frequent phenomenon which need to be detailed researched. In Croatia there is no research about whistleblowing, although the reality is theat this is no rare or isolated phenomenon. The practice in Croatia shows that whistleblowing and whistleblowers in reality are condemned, they are treated extremely bad although in many cases they showed on criminal and unethical acts which could accelerate organizational and social development. Very present problem in Croatia is corruption and theft. On 28. October 2013. in Croatia is established the „Suggestion of low for protection the denunciators of anomalies (whistleblowers protection)“ by which should be regulated their status and establish their multiple protection. The intention of this low was to discourage the management from revengeful behavior against denunciators of anomalies, change the „climate of fear“, to stimulate social responsible behavior, change the negative perception of whistleblowers (snitcher), narrow the space for corruption and to make a contribution in building more just and more free society (suggestion of doctor Dražen Gorjanski). How much the whistleblowers are important in showing up the criminal acts e.g. the corruption, tell us the research that about corruption is known on the basis of whistelblowing activity in 43% cases, and by means of police investigations only 2-3% cases. Whistleblowers are extremely efficient in showing up very different anomalies, because when one whistleblower do his job, activate other 20 persons (potential but inactive whistleblowers) who will do the same. So here is evident the economic adequacy of whistleblowing in battle against corruption, so 1$ invested in this purpose (e.g. whistleblowers support) results with even 8$ yield (prevented damage)(http://www.vecernji.hr/hrvatska/zvizdacu-nagrada-10-od-iznosa-stete-koju-je-sprijecio-920337, 2014). So the better strategy will be to prevent wrong organizational/system behavior from doing nothing or persecution othe whistleblowers.

Because of better achievment of organizational and social interest, the purpose of this work was to explore the attitudes of the most propulsive population - master management students-what is the prerequisite to restructure the social attitude, structures and programs from suboptimal to better doing. This paper deals with exploration of different whistleblowers attitudes on the master management student population in Croatia, and according the obtained results propose the mesures to creating such ethical climate which will make whistleblowing to an unnecessarily act. The problems of this research are defined as follow:

a) To define the actual management students attitude towards whistleblowers, whistleblowing, and their potential whistleblowers reaction.
b) To reserach the differences in the students attitude towards whisleblowing and whistleblowers, potential whistleblowers reaction in regard of gender.
c) To reserach the differences in the students attitude towards whisleblowing and whistleblowers, potential whistleblowers reaction in regard of organizational membership.

The derived goal from three designed empirical problems was to make proposals (solutions) for such ethical organizational climate which can make whistleblowing to unnecessarity and put whistleblowers in the function of organizational development.

2. Methodology

Because the researches of whistleblowing are at the beginning in Republic Croatia and other transition economies, this is according to the knowledge of author (although interesting and for management and organization very relevant research) the new line of research on this topic. This work has its foundation on one occasionally, limited sample of professional management students from Faculty of Economics in Split Croatia - in further text Croatian sample. The goal was to research the attituted about whislteblowers and whistleblowing on one larger Croatian Economic Faculty (this days on Faculty of Economics in Split, Croatia study almost 4.500 students) which also educate future management professionals. This means that Faculty of Economics in Split educate future management professionals from which is to expect to have near managerial/leadership function in the future organizational praxis. By this type of research it can be forecasted the future economic efficacy of such human resources, and positive attitude towards whistleblowing enable the enlarged possibility for organizational change and development, because in Croatia is dark side of business and management also frequent as show us experiences from newspaper and some rare research in Croatia (Bogdanović, 2015; Bogdanović, 2014).

2.1. Measurement instruments

For measuring the attitudes to the whistleblowers it is used the questionnaire created by the author. It consist from 5-items. The evaluation scale were (1. I strongly disagree; 2. I disagree; 3. I do not agree not even disagree; 4. I agree; 5. I strongly agree). The reaction questionnaire describe the different reactions in the potential situations on what kind will react the examinee (external and/or internal) if he had the intention to “blow into the whistle”, created by the author. It consist from 8 items (4 items measure external whistleblower reaction, and 4 items measure internal whistleblower reaction). The evaluation scale were (1. I will never act in such a way; 2. I will not act in such a way; 3. I am not sure if I will act in such a way; 4. I believe I will act in such a way; 5. I am sure that I will act in such a way). Original questionnaire is submitted in appendix part. The metric characteristics obtained on Croatian student population (N=121) are presented in table 1.

Table 1. Basic psychometric norms achieved on Croatian sample for the key whistleblowing variables

Variable name	Mean	Standard deviation	Cronbach alpha
Attitude towards whistleblowers (N=3 items)	**3,75**	**0,78**	**0,62**
Attitude towards whistleblowing (N=2 items)	**3,79**	**0,95**	**0,83**
Total attitute about whistlebowers and whistleblowing (N=3+2=5 items)	**3,73**	**0,75**	**0,77**
External whistleblowers reaction (N=4 items)	**3,16**	**0,85**	**0,79**

Internal whistleblowers raction (N=4 items)	**3,40**	**0,98**	**0,80**
Total reaction (external and internal) in situatuion of blowing the whistle i.e. total whistleblower reaction (N=4+4=8 items)	**3,28**	**0,69**	**0,74**
Total scale (N=3+2+4+4=13 items)	**3,47**	**1,12**	**0,80**

Source: Research results (2015)

From the presented norms it can be seen that three variables have good reliability (attitude towards whistleblowing, total attitude towards whistleblowing and whistleblower reaction (Cronbach Alpha from 0,74 to 0,83). The variable attitude towards whistleblowers have small but enough reliablity (Cronbach Alpha=0,62), so the attitude towards whistleblowing (Alpha=0,83) is more stable than attitude towards whistleblowers (Alpha=0,62). So examinee are more consistent in their attitude to the whistleblowing as phenomenon then in their attitude to the persons who did whistleblowing.

In the next table 2. is presented the intercorrelations matrix bettewen items to show what items are overlaping (measure the same thing).

Table 2. *Intercorrelations between the items of questionnaires*

Inter-Item Correlation Matrix

	one	two	three	four	five	six	seven	eight	nine	ten	eleven	twelve	thirteen
one	1,000	,198	,358	,243	,265	,069	,075	,186	,104	,300	,282	,268	,246
two	,198	1,000	,507	,459	,414	,279	,085	,206	,161	,229	,103	,013	-,034
three	,358	,507	1,000	,431	,443	,233	,167	,243	,147	,258	-,012	,021	,085
four	,243	,459	,431	1,000	,706	,234	,225	,340	,279	,208	,194	,023	-,072
five	,265	,414	,443	,706	1,000	,350	,218	,368	,410	,260	,249	,073	-,050
six	,069	,279	,233	,234	,350	1,000	,487	,534	,550	,161	,126	,163	-,022
seven	,075	,085	,167	,225	,218	,487	1,000	,340	,398	,121	,057	,242	,104
eight	,186	,206	,243	,340	,368	,534	,340	1,000	,558	,069	,054	,039	-,071
nine	,104	,161	,147	,279	,410	,550	,398	,558	1,000	,129	,186	,098	-,048
ten	,300	,229	,258	,208	,260	,161	,121	,069	,129	1,000	,571	,385	,451
eleven	,282	,103	-,012	,194	,249	,126	,057	,054	,186	,571	1,000	,478	,449
twelve	,268	,013	,021	,023	,073	,163	,242	,039	,098	,385	,478	1,000	,657
thirteen	,246	-,034	,085	-,072	-,050	-,022	,104	-,071	-,048	,451	,449	,657	1,000

Source: Research results (2015)

The items of measurement instrument showed relatively low intercorrelations so it can be considered that all the items are enough “pure” with tolerance empirical overlap.

2.2. Subjects

The measurement was conducted in middle of december 2014. on the sample of N=121 professional management students of first year of master management study (fourth year of integral study) on the Faculty of Economics University in Split, Croatia. From total N=121 student subjects N=84 were female and N=37 male with age differentiation from 22-48 years (22-25 years 85%; 26-29 years 9,2% and 30-48 years 5,8%); N=63 of them were working some time in an organization, N= 58 have not any organizational experience, N=5 of them were maried, N=116 were not.

2.3. Procedure

Before questionnaire application the Faculty Management (Vice-dean for teaching on Faculty of Economics University in Split, Croatia) is kindly asked for the approval of the research. After its approval has been given, the students were explained the type and the aim of the research, and they were kindly asked for their approval to be included in this research. In research are invited only the students which have given the positive answer on the question if they are willing to fulfil the questionnaire in the research.. The questionnaire fulfilling was anonym in duration of approximately 5 minutes. The data processing was conducted by SPSS statistical package.

3. RESULTS AND DISSCUSSION

3.1. General remarks on basic desriptive results all the items

As general owerview of research items the basic descriptive statistic is given in the table 3. There can be seen the answers about important whistleblowers/blowing questions in this research. The full questions for each item are given ing the appendix part.

Table 3. Basic descriptive statistics for all the items (N=121)

Item Statistics

	Mean	Std. Deviation	Mod
one	3,7190	1,05848	4
two	3,8182	1,02470	4
three	3,7107	1,03632	3
four	3,6694	1,12834	5
five	3,9174	,92724	4
six	3,1818	1,04881	3
seven	3,3388	1,00460	3
eight	3,0165	1,08000	3
nine	3,0826	1,20130	3
ten	3,6694	1,19992	4
eleven	3,2066	1,23097	4
twelve	3,3223	1,25973	4
thirteen	3,3884	1,28693	3

Source: Research results (2015)

As can be seen from the table 3. above there is in general positive attitude about whislteblowers (items 1,2,3 M>3,50), also positive attitude towards whistleblowing (items 4,5 M>3,50). It is interesting that the dominant value (Mod) of item 4 (*„Whistleblowing is moral duty of every employee"*) is evaluated with maximum 5 grade (N=35 students gave the grade 5 and N=34 grade 4), so when is dominant opinion that to whistle into the organization is morally right, increases the possibility of such reaction. This indicates also the item 5 *(„Whistleblowing is moral right")* M=3,92 and Mod 4 (actually also N=35 examinee gives grade 5, and N=47 the grade 4). But of course what is moraly right do not means the same (consistent) behavior because it is mainly formed by means of awards and punishments what is well known (Pastuović, 1999). For morality decision individual manager morality is very important (Chudziska-Czupala, 2013) but not the only influental factor, because also are important organizational structure/system and organizational culture (Buble, 2006). So for appropriate organizational behavior beside individual morality is very important ethical climate/culture with ethical structures, so with them ethical management can produce the substantial ethical difference.

The items who represent the whistleblowers external reaction (items 6,7,8 and 9) are at neutral grade (M=3), also with Mod=3. This indicates that mainly the examinee according their experience what happens to the whistleblowers when they „blow the wistle" outside the organization are not sure if this is appropriate behavior, because experience say „Do not do it outside your home"!

The items who represent the whistleblowers internal reactions i.e. inside the organization (items, 10, 11, 12, 13) are at higher value, dominantly Mod=4, and the highest value is in the item 10 (*„I will report the person of trust in organization*" M=3,67).

In general it is to note that the attitude about whistleblowers and whistleblowing is more positive, than the potential reaction. So it can be concluded that the moral opinion in the case of whistleblowing is not enough to produce whistleblowing behavior, because of croatian and overall experience that whistleblowers are punished without exemption. This conclusion confirmed also the slightly correlation beetwen total whistleblowing attitude and total whistleblowing reaction which is r=0,40 and significant p<0,01, so by means of attitude towards whistleblower can only in small amount predict whistleblowing behavior.

3.2. Answer on the first whistleblowing problem

The first research problem was to define the actual management students attitude towards whistleblowers, whistleblowing, and their potential whistleblowers reaction. In the table 4. are presented the basic descriptives for the whistleblowing variables.

Table 4. Basic descriptive statistics for key whistleblowing variables

Statistics

	1. TOTAL ATTITUDE	2. TOTAL REACTION	3. WHISTLEBLOWERS ATTITUDE	4. WHISTLEBLOWING ATTITUDE	5. REACTION EXTERNAL	6. REACTION INTERNAL
Mean	3,7669	3,2758	3,7493	3,7934	3,1550	3,3967
Mode	3,40[a]	3,50	4,00	5,00	3,00	3,00
Std. Deviation	,74715	,69239	,78443	,95015	,84733	,98355

a. Multiple modes exist. The smallest value is shown

Source: Research results (2015)

Note: 1. General attitude towards whisltleblowers and whistleblowing (items: 1, 2, 3, 4, 5); 2. General reaction towards whistleblowing (items: 6, 7, 8, 9, 10, 11, 12, 13); 3. Attitude towards whisleblowers (items 1, 2, 3); 4. Attitude towards whistleblowing (items: 4, 5); 5. External reaction-outside the organization (items: 6, 7, 8, 9); 6. Internal reaction-inside the organization (items: 10, 11, 12, 13).

The general attitude toward the phenomenon of whistleblowing and whistleblowers are in general positive (M=3,77; s=0,75) with multiple modes. There is also no evident difference between variables of whistleblowers and whistleblowers attitudes. Total whistleblowering reaction on fictive unfairness is somewhat lower (M=3,28, s=0,69), although the most frequent value is 3,50 (17 from 121 answers); what is especially evident in comparison with total attitude (M=3,77 vs. M=3,28). External reaction is at lowest grade (M=3,16; s=0,85), and the most frequent value is neutral answer Mod=3 (24 from 121 answers) so there is the less intention to „blow the whistle outside the organization“, and „blowing into the whistle“ inside the organization is also low (M=3,40; s=0,98) and the most frequent value is neutral answer Mod=3 (14 from 121 answers).
The general notice is that the examinees have more positive attitude towards whistleblowing than it is their willingnes to potentially „blow into the whistle“, not even inside or outside the organizations who employs them. This may be result of specific cultural socialization and experience that to „blow into the whistle“ do not pay out what is well known phenomenon of falsity in the modern society and organizational life.

3.3. Answer on the second whistleblowing problem

The second problem was to reserach the statistically significant differences in the mangement students attitude towards whisleblowing and their whistleblowers, potential whistleblowers reaction in regard of gender. This problem is solved by the means of finding the statistical differences in all the variables by gender, by simple ANOVA. The results are presented in the table 5.

Table 5. Statistical differences in different whistleblowing attitudes in regard of the gender (0-female; 1-male)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
one	Between Groups	,014	1	,014	,013	,911
	Within Groups	134,432	119	1,130		
	Total	134,446	120			
two	Between Groups	,290	1	,290	,274	,602
	Within Groups	125,710	119	1,056		
	Total	126,000	120			
three	Between Groups	,113	1	,113	,104	,747
	Within Groups	128,763	119	1,082		
	Total	128,876	120			
four	Between Groups	1,512	1	1,512	1,189	,278
	Within Groups	151,265	119	1,271		
	Total	152,777	120			

five	Between Groups	,996	1	,996	1,160	,284
	Within Groups	102,178	119	,859		
	Total	103,174	120			
six	Between Groups	,116	1	,116	,105	,747
	Within Groups	131,884	119	1,108		
	Total	132,000	120			
seven	Between Groups	,487	1	,487	,481	,490
	Within Groups	120,620	119	1,014		
	Total	121,107	120			
eight	Between Groups	1,226	1	1,226	1,052	,307
	Within Groups	138,741	119	1,166		
	Total	139,967	120			
nine	Between Groups	,996	1	,996	,688	,408
	Within Groups	172,178	119	1,447		
	Total	173,174	120			
ten	Between Groups	1,784	1	1,784	1,241	,267
	Within Groups	170,993	119	1,437		
	Total	172,777	120			
eleven	Between Groups	4,411	1	4,411	2,959	,088
	Within Groups	177,423	119	1,491		
	Total	181,835	120			
twelve	Between Groups	12,510	1	12,510	8,367	,005
	Within Groups	177,920	119	1,495		
	Total	190,430	120			
thirteen	Between Groups	16,157	1	16,157	10,530	,002
	Within Groups	182,587	119	1,534		
	Total	198,744	120			
AWHISTLEBLOWERS	Between Groups	,063	1	,063	,102	,750
	Within Groups	73,777	119	,620		
	Total	73,840	120			
BWHISTLEBLOWING	Between Groups	1,240	1	1,240	1,378	,243
	Within Groups	107,094	119	,900		
	Total	108,335	120			
ATTITUDE	Between Groups	,356	1	,356	,635	,427
	Within Groups	66,632	119	,560		
	Total	66,988	120			

REXTERNAL	Between Groups	,618	1	,618	,859	,356
	Within Groups	85,539	119	,719		
	Total	86,157	120			
RINTERNAL	Between Groups	7,552	1	7,552	8,280	,005
	Within Groups	108,532	119	,912		
	Total	116,084	120			
REACTION	Between Groups	3,122	1	3,122	6,830	,010
	Within Groups	54,406	119	,457		
	Total	57,529	120			

Source: Research results (2015)

There are found four statistically differences between female and male examinee. This are:

a) The statistically significant difference between female and male examinee was found in question 12 („I will report top management or general management“) where F=8,37; p<0,01. Female examinee (M=3,54; s=1,11) are more likely to report (whistle) to general management than male examinee (M=2,84; s=1,44).
b) The statistically significant difference between female and male examinee was found in question 12 („I will report the first manager above me“) where F=10,53; p<0,01. Female examinee (M=3,63; s=1,16) are more likely to report (whistle) to the first manager above than male examinee (M=2,84; s=01,40).
c) Statistically significant difference between female and male examinee was found in the variable of internal whistleblowing reaction where F=7,55; p<0,01. Female examinee (M=3,56; s=0,80) are more likely to internaly report (whistle on one of four ways stated in questionnaire, items 10, 11, 12, 13) than male examinee (M=3,02; s=1,09).
d) Statictically significant difference between female and male examinee was found in the variable of total whistelblowing reaction (external and internal) where F=6,83; p=0,01). Also here female examinee (M=3,38; s=0,65) are more likely to have whistleblowing reaction (the both internal and external) than male examinee (M=3,03; s=0,59).

This statistically significant proven differences between feemales and male examinee shows that female examine has more trust/confidence into management (the both i.e. highest and the first management level) than male examinee, what can be possibly explained by cultural factors. Namely possible explanation could be that in Splitsko-Dalmatinska County of Republic Croatia it is stil expected that male must earn enough to sustain the family and of course his wife, so there are greater social consequences of whistleblowing in perceptions of male examinee then the feemale ones. So according such socialisation female examinee in such a context can be more „brave“ than male examine because in such a culture, e.g. is socially not such a „bad thing“ to get fired, or have maltreatment on the job for women as really is for the man. This could also be the explanation for greater propensity to internal „blow the whistle“ by female examinee.

3.3. Answer on the third whistleblowing problem

The third research problem was to reserach the statistically significant differences in the students attitude towards whistleblowing and whistleblowers, potential whistleblowers reaction in regard of organizational membership. This problem is also solved by the means of finding the statistical differences in all the variables by gender, by simple ANOVA. The results are presented in the table 6.

Table 6. Statistical differences in different whistleblowing attitudes in regard of the organizational membership (0-No; 1-Yes)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
one	Between Groups	,056	1	,056	,049	,825
	Within Groups	134,391	119	1,129		
	Total	134,446	120			
two	Between Groups	2,960	1	2,960	2,863	,093
	Within Groups	123,040	119	1,034		
	Total	126,000	120			
three	Between Groups	5,790	1	5,790	5,598	,020
	Within Groups	123,086	119	1,034		
	Total	128,876	120			
four	Between Groups	,265	1	,265	,206	,650
	Within Groups	152,512	119	1,282		
	Total	152,777	120			
five	Between Groups	1,720	1	1,720	2,017	,158
	Within Groups	101,454	119	,853		
	Total	103,174	120			
six	Between Groups	3,683	1	3,683	3,415	,067
	Within Groups	128,317	119	1,078		
	Total	132,000	120			
seven	Between Groups	5,301	1	5,301	5,448	,021
	Within Groups	115,806	119	,973		
	Total	121,107	120			
eight	Between Groups	,036	1	,036	,031	,862
	Within Groups	139,931	119	1,176		
	Total	139,967	120			
nine	Between Groups	,161	1	,161	,111	,740
	Within Groups	173,012	119	1,454		
	Total	173,174	120			

ten	Between Groups	2,028	1	2,028	1,414	,237
	Within Groups	170,748	119	1,435		
	Total	172,777	120			
eleven	Between Groups	1,630	1	1,630	1,077	,302
	Within Groups	180,204	119	1,514		
	Total	181,835	120			
twelve	Between Groups	1,767	1	1,767	1,115	,293
	Within Groups	188,662	119	1,585		
	Total	190,430	120			
thirteen	Between Groups	,662	1	,662	,398	,529
	Within Groups	198,082	119	1,665		
	Total	198,744	120			
AWHISTLEBLOWERS	Between Groups	1,682	1	1,682	2,774	,098
	Within Groups	72,158	119	,606		
	Total	73,840	120			
BWHISTLEBLOWING	Between Groups	,833	1	,833	,922	,339
	Within Groups	107,501	119	,903		
	Total	108,335	120			
ATTITUDE	Between Groups	1,307	1	1,307	2,368	,126
	Within Groups	65,681	119	,552		
	Total	66,988	120			
REXTERNAL	Between Groups	,824	1	,824	1,149	,286
	Within Groups	85,333	119	,717		
	Total	86,157	120			
RINTERNAL	Between Groups	,249	1	,249	,256	,614
	Within Groups	115,835	119	,973		
	Total	116,084	120			
REACTION	Between Groups	,042	1	,042	,086	,769
	Within Groups	57,487	119	,483		
	Total	57,529	120			

Source: Research results (2015)

There are found only two statistically significant differences (by criterion of $p<0,05$) and one borderline ($p=0,067$) in regard of organizational membership. This are:

a) The statistically significant difference between the examinee who were organizational member and those who were not was found in question 3 („Whislteblowers are good for public interest“) where $F=5,60$; $p<0,05$. Organizational examinee ($M=3,94$; $s=0,96$) ware

more likely to think that whistleblowing is good for society, than nonorganizational examinee (M=3,49; s=1,08). So organizational experience makes the difference in perception of usefullness of whisleblowing for social wellfaire.

b) The statistically significant difference between the examinee who were organizational member and those who were not was found in question 7 („I will report to the authority outside the organization“) where F=5,45; p<0,05. Organizational examinee (M=3,54; s=1,00) were more likely to whistle outside the organization than nonorganizational member (M=3,12; s=0,97).
c) Borderline statistically significant difference (F=3,42; p=0,067) between examinee who were organizational member and those who were not was found in question 5 („I will use the informations chanels outside the organization“). Organizational examinee (M=3,35; s=1,12) were borderline statistically significant more likely to whistle from informational chanels outside the organization than nonorganizational member (M=3,00; s=0,94).

From this statistically significant differences we can conclude that organizational membership makes the examine more aware about the usefulness of whistleblowing, and also prone to use external informational sources to make whistleblowing. The organizational experience is so one of the most important socialization factor in understanding the whistleblowing, and understanding why is sometimes the external whistle used instead of internal.

4. What managers can do to benefit the whistleblowing?

The only realy good answer is to create such ethical climate and culture where whistleblowing not only becomes unnecessary, but is beneficial for the organization. Namely because whistleblowers in the early stage detect organizational problems (similar to canary in mine which alarm on the collected dangerous gases), every organization which pay attention to his reputation should force itself to solve the problem. The typical management reaction is counterproductive: management on the first sign of whistleblowing react revengeful, they do not think that is the best solution to solve the problem before it escalate, they start to blaspheme, attack, disdain the whistleblower who send the alarm. Management often charge the whistleblower that something with him is not right, that he is mentaly disordered, that he wants to provoke attention, that he is rotten or problematic employee whom organization should as soon as possible to release. So on this way management in fact disfunctionally try to solve the organizational problem (corruption or significant low or moral failure are the most visible ones), so from an internal whistleblowing becomes an external problem. Appearance of external whistleblowing is on specific way organizational blame, not so because the whisleblowers behave unloyal, i.e. uncorrect, but because thay draw attention on very possible unethical (blameful) organizational politics and management (organizational environment is unethical i.e. scandalous), so as such it extort very possibly the correct reaction of whistleblowing. Such attitude about whistleblowing has Sweden organizations, although thay not even think about the possibility that someone blow the whistle „apochriphaly“ because such situation is unpossible for normal human being. So the existence of whistleblowing is very possibly organizational and managerial blame, because it refer on wrong doing. The best managerial strategy to benefit from organizational whistleblowing is creation of such ethical climate in which whistleblowing is not even necessary, and if it is, that it is holded in internal organizational frame and there is resolved by resolving the key organizational problems. Management can be proactive in creation of ethical climate for correction of doing/ behaving wrong. In fact proactivity in correct doing behavior (with or without the whistleblowers) can be considered as comparative advantage In detecting the wrong organizational behavior the key are the questions (Micel&Near prema Ottensmeyer&McCharty, 1996, p. 431):

a) What organization are we?
b) What are our values and behavior standards?

c) What are our moral obligations?
d) What cost and benefits are connected with achieving our values and standards?
e) What we are apt to do to assure the achieving our values and standards?

By answering on this questions management can clarify himself what is wrong doing and so define potential problamatic areas, i.e. wrong doing with stackeholders and wrong doing to the organization itself. By organizational climate change is changing also the organizational culture. Organizational culture in which the key value is power, where power is the unique criterion for distribution, where threating, incriminating the justice and equality is organizational culture of stagnation. Dinamizing organizational development should start from the cultural change the whole organizational atmosphere, not only one thing. Changing the culture need change of leading structure in every part of organizational life, especially is important to change leadership in the areas which are related to power. The power should be under the whistleblowers control. Only by resolving organizational conflicts it is possible to improve human relatinships, psychosocial working conditions and reduce whistelblowing.

Basic questions who can help to the management in using organizational whistleblowing and whistleblowers as developement factor are:

a) Which activities in organization are considered as wrong?
b) Which activities in organization are desirable?
c) To whom should employee contact in the case of bad/wrong doing, is this boss on the first or higher level, HRM department, organizational lawer or internal supervisor?

To everyone should be clear which activities are considered as wrong and what should be done when something like that occur. If in organization exist such system than exist the possibility for self-correction, and on this way can be avoided external informing about unpleasant incidence in organization. For management is also important the employee believe (climate/culture element) that something will be improved in regard to problem. If employee complain is valid, the correction of complained problem send strong message and create trust. If about valid complain is nothing maked, it is also very important to explain the reasons why management decided so.

Whistleblowers represent the dilemma for most managers, and often are perceived as threat. In the era when from employees is expected greater job involvement/engagement, it is important to see that whistleblowers are valuable resource. If they are treated as engaged employees who can secure valuable informations and solutions for managerial problems, they really can impove their organizations and management as well. Also organizations can make profit from the fact that the most of the whistleblowers are prone to actively be engaged in correction of wrong doing.

5. Conclusion

Phenomenon of whistleblowing and whistleblowers represent not only managerial problem, but also valuable resource in achieving better organization and better society.
The purpose of this paper was to measure the attitude and potential reaction on whistleblowing in the future management executives population in Croatia, and give some managerial suggestions how to benefit from them. The empirical results as answer on the main problems showed:

d) The general attitude toward the phenomenon of whistleblowing and whistleblowers is in general positive (M=3,77; s=0,75). Total whistleblowering reaction on fictive unfairness was somewhat lower (M=3,28, s=0,69). External potential whistleblowing reaction is at lowest grade (M=3,16; s=0,85) and potential„blowing into the whistle“ inside the

organization was also low (M=3,40; s=0,98). In general it is to note that the attitude about whistleblowers and whistleblowing is more positive, than the potential reaction (Mtotalatitude=3,77; Mtotalreaction=3,28). Moral opinion about whistleblowing/whistleblowers was slightly but significant connected with potential whistleblowing reaction (r=0,40; p<0,01). This is as expected because attitude about whistleblowing/whistleblower is not enough to produce whistleblowing behavior.

e) Statistically proven significant differences between feemales and male examinee shows that female examine have more trust/confidence into management (the both i.e. highest and the first management level), and are statistically more prone to internal and total whistlewhistleblowing than male examinee (all statistically significant diferences were on p<or= 0,01), what can be possibly explained by cultural factors.

f) Statistically proven significant differences between examinee who has organizational exeperience and those who has not, is found in moral attitude „*Whistleblowing is good think for public interest*“ and potential external reaction by using informations channels outside the organization (the both statistically significant diferences were on p<0,05). This results showed that organizational membership is variable who make whistleblowing as moral act who is beneficial to the society and affinity to use external informational resources to make whistleblowing.

This research showed that whisteleblowing can not be avoided, especially because of positive attitude toward whistleblowing/whistleblowers of future managerial population. The present management method of punishing the whistleblowers to avoid whistleblowing is quite uneffective (because of wasting valuable resources), much better strategy to use them to make better organizations and management. This can be made by creating such ethical climate and culture where whistleblowing becomes unnecessary. Namely, if whistleblowers are treated as engaged employees who can secure valuable informations and solutions for managerial problems, they really can impove their organizations and management as well. So organizations can make profit from the fact that the most of the whistleblowers are prone to actively be engaged in correction of wrong doing, and so develop and make more profit to his employers.

References

1. Bogdanović, M. (2015.), Dark side of business and management in function of economic (un)development, *4th International Scientific Symposium Economy of Eastern Croatia - Vision and Growth*, Croatia, Osijek, 21st – 23rd May 2015., p. 248-258.
2. Bogdanović, M. (2014.), Deviant management values (Dark Triad) by Croatian management students. *7th International Conference on the School of Economics and Business in Sarajevo*, Sarajevo 13th-14th October 2014., Bosnia and Herzegovina, Conference Proceedings (Edited by Eldin Mehić), p. 226-242.
3. Buble, M. (2006.), *Management*, Split: Ekonomski fakultet u Splitu.
4. Chudziska-Czupala, A. (2013), Ethical Ideology as a Predictor of Ethical Decision Making, *The International Journal of Management and Business*, Vol. 4., Issue 1, June 2013, p. 82-104.
5. Lučić, M. (2013). Istina je najvažnija: Intervju s Jackom Hawleyem**.** [Truth is the most important: Interview with Jack Hawley], *qLife*, Vol. V, No. 2. summer 2013, pp. 45-58.http://www.quantum21.net/slike/src/2013/10/15/1381829975qlife19prew.pdf Accessed 19. September 2013.

6. Ottensmeyer, E. J. & McCarthy, G.D. (1996). *Ethics in the Workplace*. International Edition (New York…Toronto): McGraw-Hill Companies, Inc.

7. Pastuović, N. (1999). *Edukologija* [Educology], Zagreb: Znamen.

8. Soaken, L. K. & Soaken, R.D. (1986). A Survey of Whistleblowers: Their Stressors and Coping Strategies. Downlauded from http://www.whistleblower-net.de/pdf/Soeken.pdf 14.04.2015.

9. Wu, L.-Z., Yim, F. H.-k., Kwan, H. K. & Zhang, X. (2012). Coping with Workplace Ostracizm. The Role of Ingratiation and Political Skill in Employee Psychological Distress, *Journal of Management Studies*, 49 (1), 177-199.

10. http://www.vecernji.hr/hrvatska/zvizdacu-nagrada-10-od-iznosa-stete-koju-je-sprijecio-920337 (Objava: 11.02.2014 | 14:45 h)

Appendix

Total – 13 items

Attitudes towards whistleblowers

1. Whistleblowers prevents greater damage to the organization.
2. Whistleblowers are the corruption control.
3. Whistelblowers are good for public interest.

Attitudes towards whistleblowing (ethically correctness)

4. To blow the whistle is moral duty of every employee.
5. To blow the whistle is moraly correct.

Whistleblowers reaction - outside the organization (external)

6. I will use the informations chanels outside the organization.
7. I will report to the authority outside the organization.
8. I will report to NGOs (non governmental organizations).
9. I will report the public by means the media.

Whistleblowers reaction - inside the organization (internal)

10. I will report the person of my trust in organization.
11. I will use internal organizational e-mail to report.
12. I will report to the top mangement or general manager.
13. I will report to the first manager above me.

COMPARATIVE ANALYSIS OF DIFFERENT THEORIES OF ORGANIZATION

MSc Dragana Došenović[199]

Abstract

The main topic of this paper is comparative analysis of different theories of organization, with special focus on classical theory, interpersonal relationship theory and the theory of organizational culture. It can be said that these theories made a significant contribution when it comes to the science of organization. For this reason, the purpose of this paper is to identify and describe the importance and role of individual theories, as well as to point out their basic characteristics.

Given the importance which observed theories have for the development of organizational science, this paper will present the importance of these theories for the design and for the functioning of any organization. Comparative analysis which is presented in this paper indicates that these theories have some similarities but also many differences concerning the manner in which they examined the organization. Also, each of these theories has its advantages and disadvantages.

Based on the analysis and research, author of this paper has come to many conclusions on the basis of which has been proven that each of the studied theories made a significant contribution to the development of organizational science. This is the reason why the importance of these theories for organization and organizational science in general is emphasized.

Keywords: *organizational theory, organization, 7s model, interpersonal relationship, organizational culture*

[199] University of Banja Luka, Faculty of Economics, Majke Jugovića 4, 78000 Banja Luka, Bosnia and Herzegovina, e-mail: dragana.dosenovic@efbl.org

Introduction

Looking at the historical development of organizational science many theories have been developed from the appearance of the classical theory until today. These theories differ in the way they observed and studied the organization. The oldest theory is the classical theory of organization that was created in the late 19th century and which brought together a group of authors who treat the organization as a rational system or mechanical formation. Unlike the classical school that studied the organization as a closed system, a school of interpersonal relations observed the organization as a social formation or a system made up of independent people. This school began to develop in the thirties of the 20th century. The focus of the authors of this school was on the people, their behavior and interpersonal relationships within the organization. When it comes to new theories of organizations, one of them is the theory of organizational culture that treats the organization as a social construction of reality.

The subject of this paper are different theories of organization as well as their contribution to the development of organizational science. The basic aim of the paper is to determine and explain the importance and role of individual theories or to briefly analyze, describe and compare their basic characteristics. In order to achieve the set goal, the method of content analysis, a descriptive method and methods of classification and comparison are used in this paper. Basic hypothesis in this paper is the assumption that each of the studied theories made a significant contribution to the development of organizational science in a way that each of them shed light on certain categories that are relevant to the design and functioning of any organization.

This paper consists of two parts. In the first part of the paper various theories of organization are presented, the role and significance of the observed theories is highlighted and a brief comparison of their basic characteristics is shown. The second part of this paper presents a comparative analysis of these theories that was made using a model 7s, which is used to analyze the organization in terms of its design and functional values. In addition to these parts, the paper includes an introduction, conclusion and references.

1. An overview of the theories of organization

The classical theory of organization belongs to the traditional theories. It is the oldest theory which placed the organization in a set of science. In the framework of this theory two theoretical directions have been developed: the theory of scientific management and classical theory of organization (Petković, Janićijević, Bogićević, 2003).

The first direction was created as a result of the work of Frederick Taylor[200], the American engineer who has studied the problems of organizing work and effective functioning of organizations, in order to try to find different ways to increase the productivity of employees. The subject of his study were the executive processes. This scientist approached the problems of organization "bottom-up". Taylor devised analytical method for the determination of labor norms. He defined four principles which underlie the concept of scientific management, and is considered the founder of the movement called "Scientific Management". The creator of the second direction was Fayol, French engineer who has focused on solving problems of functioning of the administration. The subject of his study was administrative (control) function. Unlike Taylor, Fayol approached the study of problems in the organization "top-down". He was among the first who developed functional principle of organization. He shared all the activities in organization into six groups and thus defined six functions that exist in each company (Pugh, D., Hickson, D., 2007). He also defined the five functions of management (Babić, Lukić, 2009), as well as fourteen

[200] Frederick W. Teylor (1956 - 1917), most famous works are "Principles of Scientific Management" and "Scientific Management".

management principles (Ott, Shafritz, Yang, 2011) which can be applied in any organization. Although these authors focused on solving various problems within the organization, what is common for these authors is the way in which they studied the organization that was treated as a closed system. This view of the organization is based on the assumption that the organization is a fully independent entity from the outside world. Internal (interior) factors have an impact on organizational structure, performance and efficiency, while the influence of external factors is completely ignored.

When managers faced with hidden barriers to the success of the companies (the 30s of the 20th century), they sought the solution of problems in the human factor in the organization. Thus the engineering approaches were replaced with the humanities. The main representative of the neoclassical theory (or the theory of interpersonal relationships) is Elton Mayo[201] who strived to meet the social needs of the people, the establishment of good interpersonal relations and to spread the idea that people are the most important factor in the organization. The school of interpersonal relations, which also belongs to the traditional organization theories, believed that people are the most important component of any organization. Its research was focused on the nature of individual and group behavior of people, as well as the characteristics of their interactions and their impacts on the organization. The formation of this school is associated with Elton Mayo (Pugh & Hickson, 2007) and his famous Hawthorne experiments. These experiments were conducted in the Hawthorne factory[202] in order to determine the influence of various factors on the productivity of workers. In experiments with lighting research the amount of light in the workplace was varied in order to investigate the impact of these changes on worker productivity whereas experiments in the room for the assembly of the telephone relay studied the effect of different working conditions on performance and output. The factory has been implemented also in the program of interviews in which 21,126 workers were interviewed (Mayo, 2003), as well as experiment with mica[203]. The results that were obtained in this experiment showed that the productivity and behavior of employees while performing work activities depends not only on the physical characteristics and physiological conditions in which workers do, but also on the socio psychological condition. It also found that workers are not only homo economicus and that they behave as a group. In addition, it has been shown that changes in the quality of management influence on improving morale and increase of worker productivity (Levitt, List, 2001).

The theory of organizational culture is based on the assumption that every individual, including every member of any organization, responds to the reality that surrounds him on the basis of their own interpretation of reality, and not based on the reality of what it really is (Schein, 1985). Since the organization is a group of people who had gathered around a common goal, it is essential that social interactions take place in it in order to achieve the set goals. This process of social interaction is the place where social construction of reality is performed, or the process in which people attach meanings to different phenomena and events in the organization, in order to understand them and be able to react to them. The theory of organizational culture implies that the social construction of reality happens on the level of an organization. According to this theory, the organization is a social system in which organizational culture is created. This organizational culture is based on the interactions of all members and it represents one of the main factors for the design, and also for the functioning of the organization. Since organizational culture includes a variety of elements such as: assumptions, values, attitudes and norms, which were adopted by all or most members of an organization (Janićijević, 2013), this theory emphasizes its impact on the

201 George Elton Mayo (1880 – 1949), the most famous works: "Democracy and Freedom", "The human problems of industrial civilization" and "Social problems of industrial civilization"

202 Hawthorne factory was located in Cicero, a suburb of Chicago, and it was part of the Western Electric Company engaged in production of telephone cables, transmission equipment and other telephone equipment.

203 Mica is a shiny, silvery and translucent mineral, with a layered structure which can be list in very thin layers. Since it is the outstanding electrical and thermal insulator, it is applied in electrical engineering.

management and organization. Although this theory is recent, its importance has attracted many authors who dealt with this topic in their research.

Similarities and differences between these three theories can best be seen with a comparative review of the basic characteristics of these theories, which are shown by the following table.

Table 1. Characteristics of the classical theory, the theory of interpersonal relationship and the organizational culture theory

	Classical theory	**Interpersonal relationship theory**	**Theory of organizational culture**
SIMILARITIES			
The way in which the organization is observed	Closed system	Closed system	Closed system
Universality of study	Partially	Partially	Partially
The level of analysis	The organization, internal environment	The organization, internal environment	The organization, internal environment
DIFFERENCES			
Understanding of the organization	Mechanical creation	The social system	The social system
The way in which the man is observed	Replaceable part, a rational being	Socio-psychological being	Socio-psychological being
The dominant components	Technical and structural aspects	The human aspect	The human aspect
Focus	Efficiency, process and performance	People, interpersonal relations	Social interaction, organizational culture
The nature of the restructuring process and the functioning process	Objective	Subjective	Subjective
Purpose	Creating a faceless rational system	The satisfaction of social needs, the establishment of good interpersonal relations	Creating identity through unity

Source: author

From the table above it is clear that all three theories observe organization in the same way (as a closed system). Factors from the external environment have no influence on such a system. Another similarity is a partial study of the organization. On the other hand, the lack of a comprehensive study is one of the main shortcomings of these theories. The similarity is also reflected in the level of analysis, considering that all these theories analyze the organization or its internal environment. When it comes to differences between these theories, the classical theory looks at the organization as a mechanical creation and rational system, while the other two theories are based on understanding the organization as a social system. Classical theory is different from the other two theories according to the way it observes the man. This theory holds that man is a replaceable part and a rational being, while the theory of interpersonal relationship and

organizational culture theory look at a man as a socio-psychological being who has different needs, desires and motives. Dominant components in these two theories are human aspects, while in the classical theory technical and structural aspects are dominant. When it comes to the focus of these theories, classical theory is focused on efficiency, processes and performance in an organization. The focus of the theory of interpersonal relationship is on the people and their relationships, while the focus of the theory of the organizational culture is on social interactions and organizational culture. The process of structuring and functioning of the organization is objective in classical theory, unlike the other two theories in which this process is subjective. The purpose of the classical theory is to create an impersonal rational system. The aim of the theory of interpersonal relationship is to satisfy the social needs of people and to establish good interpersonal relationships, while the purpose of the theory of organizational culture is to create an identity through the uniqueness of the organization.

2. Comparative analysis of classical theory, interpersonal relationship theory and the theory of organizational culture

Each organization consists of a number of different parts which are connected to each other and in this way they can operate as a unity. Each of these sections is very important and can affect other parts to a greater or lesser extent, but also can affect the overall situation of the entire system. For this reason, the organization needs to be constantly analyzed, and this process is facilitated by the appearance of numerous tools which can be used to explore the different variables and their impact on the system. One of these tools is certainly the 7S[204] model which was created in one of the world's largest consulting companies, McKinsey&Company. This universal model can be applied to small and large companies and allows analyzing the organization in terms of its design and functional values. Its use leads to the basis for the determination of different options for the redesign and modeling of organization which will operate more efficiently and achieve its goals.

The model consists of seven key factors that shape the behavior and performance of the organization. If we take into account the possibility of changing, then these elements can be divided into two groups: the solid elements (including strategy, structure and systems) and soft elements (such as: arts, people, style and shared values).

Solid elements can be more easily identified and modified, given that management has a direct impact on them, while the soft elements are difficult to change. The reason for this is the fact that their change requires more time, and that they are affected by organizational culture. Graphic for 7S model is shown in the following figure.

[204] The model was first mentioned in 1981 in the famous work "The Art of Japanese management". It was created a little earlier (in the late 70s) as a result of the research that was done by four consultants from McKinsey company.

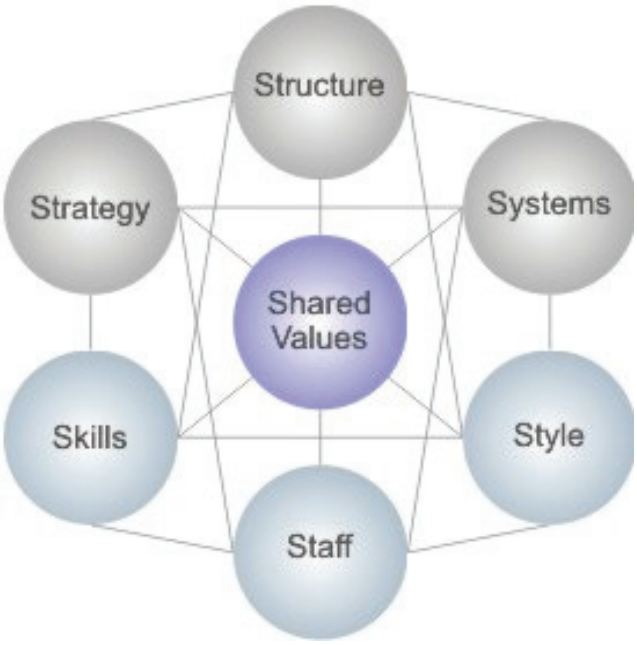


Chart 1. Elements of the 7s model
Source: Pašalić, N. (2011), *Analysis of the organization, McKinsey 7S model*, available at: /http://www.gmbusiness.biz/index.php/arhiva/41-50/gm-41/3802.html/.

This model can be used for comparative analysis of the different theories of organizations. Some of theories will be analyzed in this paper, such as: the classical theory, the theory of interpersonal relationship and organizational culture theory. Using this model, we will try to examine the way in which some theories observed elements of the organization.

Table 2. Comparative analysis of classical theory, interpersonal relationship theory and the theory of organizational culture

	Classical theory	**Interpersonal relationship theory**	**Theory of organizational culture**
Strategy	Increasing productivity	Meeting the needs, establishing interpersonal relationships	The interdependence of strategy and organizational culture
Structure	Strictly formalized, hierarchical relationships	The informal structure	The interdependence of structure and organizational culture
Systems, processes	The high degree of specialization and centralization, Planning, organizing and monitoring	Decentralization, Human Resources Management	Depend on the organizational culture
People	Machines, rational beings	Socio-psychological beings	Socio-psychological beings
Skills	Technical knowledge, interpersonal skills	Knowledge of human relations, interpersonal skills	Knowledge of human relations, communication skills, group skills

Style	Autocratic	Democratic	Depends on the organizational culture
Shared values	Are defined by the management	Arise through interpersonal relations	Arise in the process of social construction of reality

Source: author

Based on the table above it is obvious that according to the classical theory strategies and objectives of the organization should be based on increase of productivity, and therefore the increase of efficiency of functioning. When it comes to organizational culture, this theory stands for the establishment of formal structure and strictly formalized hierarchical relationships. The organization is characterized by a high degree of centralization. When it comes to the functions of management, emphasis is placed on planning, organization and control, and there is also a high degree of specialization of work. The classical theory sees men as machines, rational beings, which are most in need of technical knowledge and personal skills (Šiber, Sikavica, Pološki, 2008). Organizations are characterized by autocratic leadership style and shared values in the organization are defined by management and related to strictly defined norms or rules of behavior.

When it comes to the theory of interpersonal relationship, the strategies and goals of the organization are focused on meeting the needs of employees and the establishment of good interpersonal relations. Characteristic of this theory is the existence of an informal organizational structure. The organization is characterized by decentralization, as well as focus on the activities of human resource management. When it comes to people, they are observed as socio-psychological beings that have different needs, desires and motives. The knowledge of human relations and interpersonal skills are the most important for them. This theory is committed to a democratic leadership style and its shared values in the organization arise as a result of interpersonal relationships.

The theory of the organizational cultural proceeds from the assumption that organizational culture can directly affect the number of components of the organization through the influence of the interpretive schemes of individuals. As it creates a framework in which opinions of managers and all other employees are developed, it directly affects the behavior of members in the organization. Organizational culture created in this way can through the managers determine strategy, organizational culture, leadership style, as well as all the systems and processes that take place in the organization. This theory also observes people as socio-psychological beings who are most in need of knowledge of human relations, communication and team skills. When it comes to shared values, they are created in the process of social construction of reality.

Conclusion

From the above it can be concluded that the observed organization theories (the classical theory, the theory of interpersonal relationship and organizational culture theory) made a significant contribution to the development of organizational science. Although each of these theories has certain shortcomings, their study of organization illuminates the specific categories that are relevant to the design and operation of any organization.

The authors of the classical theory ranked organization in the group of sciences and thus made a great contribution to the development of the organization. They defined a number of principles and methods. The functioning of the organization would have been unthinkable without them, even nowadays.

Turning the attention to the working conditions and the importance of human resources for the success of the company, Elton Mayo changed the attitudes and opinions of owners and managers in many companies through his research. He improved lives of ordinary workers through changes in the functioning of the organization. Singling people as a key element of any organization, he focused his research on the man and his behavior. Thus the man was placed in the center of observation, not as a factor of production but as a psycho-physiological being, a social entity which belongs to different social groups. In this way, there was a revolution in attitudes towards workers, which led to the creation of an entirely new direction in the development of management and organization. Elton Mayo is considered the founder of the school of interpersonal relationship.

The theory of organizational culture drew attention on the importance of social interactions that exist in every organization. These interactions are used for creating organizational cultures. This theory focused on the study of the ways in which culture arises, as well as the study of the influence of culture on the different components of management and organization. In this way it showed the importance of interpretive schemes of the individuals, which are the basis of common assumptions, values, attitudes and norms that are common to all or most members of an organization. It stressed the need to create an identity of the organization through the creation of a unique organizational culture that is a key component to the success of any organization.

Finally, it can be concluded that the basic hypothesis which is defined in this paper is proven which means that each of the studied theories made a significant contribution to the development of organizational science in a way that each of them shed light on certain categories that are relevant to the design and functioning of any organization.

References

1. Babić, M., Lukić, Z. (2008). *Organization - Theory, structure, design and behavior*, Faculty of Economics, Banja Luka.
2. Bahtijarević-Šiber, F., Sikavica, P., Pološki-Vokić, N. (2008). *Modern Management skills, systems and challenges*, School books, Zagreb.
3. Janićijević, N. (2013), *Organizational Culture and Management*, Faculty of Economics, Belgrade.
4. Levitt, S., List, J., (2011), *Was there Really a Hawthorne Effect at the Hawthorne Plant? An Analysis of the Original Illumination Experiments*, American Economic Journal: Applied Economics 3.
5. Mayo, E., (2003), *The Human Problems of an Industrial Civilization*, Routledge, London.
6. Ott, J. Steven, Shafritz, M. Jay, Zong Suk Jang, (2001), *Classic Readings in Organization Theory*, Suyanne Jeans.
7. Pašalić, N. (2011), *Analysis of the organization, McKinsey 7S model*, available at: /http://www.gmbusiness.biz/index.php/arhiva/41-50/gm-41/3802.html/.
8. Petković, M., Janićijević, N., Bogićević, B. (2003). *Organization - Theory, design, behavior, changes*, Faculty of Economics, Belgrade.
9. Pugh S. Derek, Hickson J. David (2007), *Great Writers on Organizations*, Hampshire, Ashgate.
10. Schein, E. (1985), *Organization culture and leadership*, San Francisco, CA: Jossey Bass.

PART SIX:
MARKETING, CONSUMER BEHAVIOUR AND TOURISM

ESTIMATING WILLINGNESS TO PAY, REVENUES AND CONSUMER SURPLUS FOR 4G

Orhan Dagli (M.A.)[205]

Abstract

The prominent approach for estimating people's willingness to pay (WTP) for goods or services not currently on the market is the stated preference approach. One method of measuring stated WTP is the contingent valuation method (CVM). We employ CVM in order to estimate consumers' valuation for an upgrade of their mobile services from 3G to 4G technology. We conduct 320 face-to-face interviews with people from all regions of North Cyprus, and gather data with regards to their mobile use experience, demographic characteristics and willingness to pay for 4G. The contingent valuation question is designed in the payment ladder format, asking respondents to choose the highest amount that they are sure they would pay for 4G and the first amount they are sure they would not pay. We use a non-parametric approach to estimate the mean WTP using the CVM data, so that the results are robust against distributional misspecification. The Turnbull Lower Bound Mean for WTP is 16.60TL per month, the Kriström mean is 19.81TL per month, and the Upper Bound Mean is 23.02TL per month. We also carry out a sensitivity analysis in order to determine if consumers' valuation of 4G has any relation with their mobile use experience and demographic characteristics. We run an Ordinary Least Squares regression to test for dependency of WTP on mobile use frequency, age, gender, years of schooling and income. We conclude that WTP for 4G is positively related with mobile use frequency, age and years of schooling. Last, we also estimate the revenues and the consumer surplus that will accrue with the introduction of 4G in the market, under alternative pricing strategies. We show that the price of 15TL per month, among all the bids in the payment ladder of the CVM, will both maximise the revenues and also have more than half of the mobile users sign up for 4G. To the best of our knowledge, this is the first study in literature estimating the WTP for 4G using the contingent valuation method, analysing its sensitivity towards demographic characteristics, and projecting the revenues and the consumer surplus that 4G will provide.

Keywords: *Willingness to pay, 4G, Contingent valuation method, Sensitivity analysis, Consumer surplus.*

[205] Department of Economics, Eastern Mediterranean University, Famagusta, TRNC via Mersin 10, Turkey. E-mail: orhan.dagli@dagli.com.

1 Introduction

Estimating the welfare impact of public projects and policy changes is an important task in policy making. There are various methods for estimating the value of goods or services currently not on the market, mainly categorized under revealed-preference and stated-preference headings. In this paper, we employ the stated-preference approach for the valuation of Fourth Generation (4G) Mobile Telecommunication Services in North Cyprus.

Mobile communications (MC) has been the fastest evolving branch of the telecommunications sector in the past two decades. The concept has first become popular with the GSM technology, which enabled users to speak and to text messages over mobile phones. 3G introduced the capability of connecting to mobile internet and sending and receiving multimedia messages. Later, 4G made it possible to access mobile internet at very high broadband speeds. Since the beginning of 2010s, commercial 4G networks have spread rapidly around the world. There are 331 4G LTE networks offering varying data connection speeds, deployed in 112 countries, as of November 2014 (Ericsson, 2014).

North Cyprus is a developing economy in the Eastern Mediterranean with a population slightly below 300,000. Mobile use is spread widely throughout the country. Estimating the value of mobile service improvements for North Cyprus is currently significant, because the mobile services offered in the North Cyprus market today are out-dated in terms of technology and there is need for upgrade (Dagli and Jenkins, 2016). The current technology in the market is 3G, whereas the majority of the world has already moved to 4G. 4G enables both high-quality voice conversation and very high speed mobile internet connectivity, easily in the range of 30 Mbps, whereas 3G offers a data rate of about 3 Mbps. The benefits of 4G are listed as follows:

- Mobile “videophone” conversations can be made.
- Videos and movies on the internet will display instantly.
- Real-time games on the internet can be played while mobile.
- No freezing/disconnection in the video/movie/game stream while on the move. (e.g. travelling in a car)
- Very large file transfers can be made instantly over the internet.
- Cloud computing can be used while mobile. With the very high speed mobile internet connectivity, all personal files can be stored on the internet and displayed on all personal mobile devices.
- Because 4G mobile internet service can be used for home internet connection as well, you may opt not to purchase a seperate home internet service.

We employ the Contingent Valuation Method (CVM) in order to evaluate consumers’ willingness to pay (WTP) for an upgrade of their current mobile service to the 4G technology. We conduct 320 face-to-face interviews with people from all regions of North Cyprus, asking respondents to choose the highest amount that they are sure they would pay for 4G and the first amount they are sure they would not pay. The former stands for the minimum WTP, and the latter stands for the maximum WTP. Therefore, we obtain an interval where the respondent’s true WTP lies. We then combine all responses to estimate the mean WTP of the whole population, using non-parametric techniques.

The results of this study are useful for the government of North Cyprus in designing a possible auction or tender for 4G licensing, and for mobile network operators in analysing the costs and benefits of future 4G investment. Similarly, these results should be of interest for all developing countries. We also analyse the impact of demographics such as age, gender, education and income, on the valuation of mobile services, which will be an important input for telecommunications policy-making.

The paper is organized as follows. Section 2 explains the methodology used in the study. Section 3 describes the survey conducted, and the estimation results are presented in section 4. Finally, section 5 discusses the results and concludes.

2 Methodology

2.1 Contigent valuation method

The Contingent Valuation Method (CVM) of measuring stated WTP involves surveying consumers and asking them to state their willingness to pay for a good or a service directly. This method of valuing WTP was first proposed by Siegfried von Ciriacy-Wantrup (1947) as a method of quantifying the benefits of a good or a service which is not available in the market. CVM is used to estimate value of a wide range of commodities and services in both developed and developing countries. Several examples include: Amirnejad, Hamid, et al. (2006) estimating the existence value of north forests of Iran; Lee, Choong-Ki, and Sang-Yoel Han (2002) estimating the use and preservation values of national parks' tourism resources in South Korea; and Montes de Oca and Bateman (2006) estimating WTP for water services in Mexico City.

Although CVM is widely used for estimating WTP, this methodology has its critics. Venkatachalam (2004) reviews the potential problems of CVM, which it has been often criticized for. Several of these problems are the information effect, which is variation in estimated WTP due to the level of information provided in the survey, the elicitation effect, rising from the elicitation technique used (bidding game, payment card, open-ended elicitation technique, etc.), and the strategic bias, which occurs when respondents strategically do not state their true WTP.

Despite the criticisms, there are a lot of valuable suggestions to minimize the potential errors and biases of a CVM study in the literature, and CVM continues to be an effective tool to elicit WTP information (Hanemann et al., 1991; Whittington 1998; Arrow et al., 2001; List, 2001; Venkatachalam, 2004).

2.2 Theoretical framework for CVM

CVM methodology makes use of the random utility theory. We will demonstrate by adopting the approach of Hanemann (1984) to the case of an improvement in the speed of the mobile internet service.

Let us assume, as part of the CVM study, an individual q is told the speed of her mobile service will increase from S^0 to S^1, and the improvement will cost B_q. The individual is then asked whether she is willing to pay the cost B_q for the improvement in the mobile internet speed. The individual's response, represented by variable i, is either a "yes" (in which case, i = 1), or a "no" (i = 0).

The utility of the individual q from alternative i is made of an observable component and a random component:

$$U_{iq} = V_{iq} + \varepsilon_{iq}$$

The component V_{iq} is observable to the researcher, and the random component ε_{iq} is not. V_{iq} is given by:

$$V_{iq} = V_{iq}(p_X, p_N, p_A, S, Y; \tau_q)$$

Where p_N is the price of mobile service, p_A is the price vector for the averting actions, p_X is the price vector of all other goods/services, S is the speed of mobile internet, Y is the individual's income and τ_q is the characteristic vector of individual q.

When asked whether she is willing to pay the amount B_q, the individual will accept the offer if her utility after paying the amount B_q to reach speed S^1 is greater than, or at least equal to, her initial utility at speed S^0 and not having paid the amount B_q. This is to say, she will accept the offer if:

$$V_{1q}(p_X, p_N, p_A, S^1, Y - B_q; \tau_q) + \varepsilon_{1q} \geq V_{0q}(p_X, p_N, p_A, S^0, Y; \tau_q) + \varepsilon_{0q}$$

Rearranging;

$$V_{1q}(p_X, p_N, p_A, S^1, Y - B_q; \tau_q) - V_{0q}(p_X, p_N, p_A, S^0, Y; \tau_q) \geq \varepsilon_{0q} - \varepsilon_{1q}$$

The right hand side is not observable to the researcher, and therefore it is a random variable. Hence, the individual's response is a random variable and its probability distribution is given by:

$$P_{1q} = P\big(V_{1q}(p_X, p_N, p_A, S^1, Y - B_q; \tau_q) - V_{0q}(p_X, p_N, p_A, S^0, Y; \tau_q) \geq \varepsilon_{0q} - \varepsilon_{1q}\big)$$

P_{1q} is the probability the individiual is willing to pay the cost. Then, the probability that the individual is not willing to pay the cost, P_{0q}, is given by:

$$P_{0q} = 1 - P_{1q}$$

Assuming the random errors are independent and identically distributed with a mean of 0, we can define $\eta = \varepsilon_{0q} - \varepsilon_{1q}$, and let F_η be the cumulative distribution function of η. Then, P_{1q} and P_{0q} are shortly:

$$P_{1q} = F_\eta(\Delta V), P_{0q} = 1 - F_\eta(\Delta V), where\ \Delta V = V_{1q} - V_{0q}.$$

Now, let I_q be an indicator variable for the individual q. Then, the log-likelihood function for all N individuals in the survey is:

$$\log L = \sum_{q=1}^{N} I_q \ln F_\eta(\Delta V) + \big(1 - I_q\big) \ln\Big(1 - F_\eta(\Delta V)\Big)$$

At this point, in order to carry out a Maximum Likelihood estimation and find the parameters that maximize the likelihood, we need to make assumptions about the functional form of the utility function and the distribution of the error term. The simplest assumptions would be a linear utility function and a normal distribution for the error terms (Probit). The utility function would be given as:

$$U_{iq} = V_{iq} + \varepsilon_{iq}$$
$$U_{iq} = \alpha_i + \mu Y + \varepsilon_{iq}$$

The utility levels for the responses "Yes" and "No" are:

$$U_{0q} = \alpha_0 + \mu Y + \varepsilon_{0q}$$
$$U_{1q} = \alpha_1 + \mu\big(Y - B_q\big) + \varepsilon_{1q}$$

ΔV is given by:

$$\Delta V = V_{1q} - V_{0q} = \alpha_1 - \alpha_0 - \mu B_q = \alpha - \mu B_q, where\ \alpha = \alpha_1 - \alpha_0.$$

From our previous result we have:

$$P_{1q} = P\big(\Delta V \geq \varepsilon_{0q} - \varepsilon_{1q}\big) = P\big(\alpha - \mu B_q \geq \eta\big)$$

Since we assumed error term to be normally distributed, η is also I.I.D. with normal distribution. In order to convert this into a standard normal distribution, we define θ:

$$\theta = \eta/\sigma\,,\ \theta \sim N(0,1)$$

Then P_{1q} is:

$$P_{1q} = P(\eta \leq \alpha - \mu B_q) = P\left(\frac{\eta}{\sigma} \leq \frac{\alpha}{\sigma} - \frac{\mu}{\sigma}B_q\right) = P\left(\theta \leq \frac{\alpha}{\sigma} - \frac{\mu}{\sigma}B_q\right) = \Phi\left(\frac{\alpha}{\sigma} - \frac{\mu}{\sigma}B_q\right)$$

Where $\Phi(.)$ is the cumulative distribution function of standard normal distribution. We can therefore estimate two parameters $\frac{\alpha}{\sigma}$ and $\frac{\mu}{\sigma}$.

We can use the estimations of these parameters in order to calculate the mean WTP. WTP is the maximum amount of money an individual is willing to pay for the service improvement, so she is indifferent between having the service improvement and not having the service improvement:

$$\alpha_0 + \mu Y + \varepsilon_{0q} = \alpha_1 + \mu(Y - WTP_q) + \varepsilon_{1q}$$

Solving for WTP gives:

$$WTP_q = \frac{\alpha+\eta}{\mu}$$

Then the mean (expected value) is given as:

$$E[WTP_q] = E\left[\frac{\alpha+\eta}{\mu}\right] = \frac{\alpha}{\mu} + \frac{E[\eta]}{\mu} = \frac{\alpha}{\mu}$$

2.3 Non-parametric modelling of the WTP in CVM

The parametric approach to estimate WTP described above requires assumptions about distributions, and therefore it risks resulting in inconsistent estimates if the distribution is misspecified. In order to overcome this problem, several studies (Turnbull, 1976; Kriström, 1990) suggested a non-parametric approach to estimating WTP using a CVM survey.

In this non-parametric approach, respondents of the CVM survey are asked to answer "Yes" or "No" to whether they are willing to pay a cost of B. There are m different costs presented to m different samples with each sub-sample i having n_i individuals. If we let k_i represent the number of individuals saying "Yes" to B_i in each sub-sample i, then the proportion of "Yes" answers in this sub-sample is given by $p_i = \frac{k_i}{n_i}$. Calculating p_i for all sub-samples $i = 1$ to m, we end up with a sequence $p_1, p_2, p_3, \dots, p_{m-1}, p_m$ which can be interpolated with an appropriate rule of interpolation to arrive at a function for the probability of "Yes" answers in terms of the bid amount B. Mean WTP can simply be approximated as the area under this curve.

"Kaplan-Meier-Turnbull" and "Spearman-Karber" estimations are two commonly used non-parametric estimates of mean WTP. The KMT and SK estimators are given by:

$$E_{KMT}[WTP] = \sum_{i=1}^{m} B_i(p_i - p_{i+1})$$
$$E_{SK}[WTP] = \sum_{i=1}^{m}\left(\frac{(B_i+B_{i+1})(p_i-p_{i+1})}{2}\right)$$

3 Survey

The survey was administered in March 2015. The sample size is picked to be 320, which is larger than the minimum size required to estimate results that are representative of the population in the North Cyprus market (Orme, 2006). Exogenous stratified random sampling (ESRS) is used as the sampling technique. The sampling frame is divided into five strata based on the five districts of North Cyprus. Targets for the number of interviews in each district are identified using the latest census data. Random sampling is performed within each district, reflecting the characteristics of the population with reasonable accuracy, and the total of 320 individuals are interviewed in the five districts of North Cyprus.

We use in-person interviewing as the survey administration mode, because respondents may need explanation of the concepts in the study and guidance in answering the CVM question. The Fourth Generation (4G) mobile technology and its benefits are described thoroughly in a document preceding the section containing the CVM question. According to this description, 4G enables very high speed mobile internet connectivity, easily in the range of 30 Mbps, whereas 3G offers a data rate of about 3 Mbps. Several listed applications which will benefit from the high speed are mobile videophone conversations, mobile video and movie streaming, and mobile real-time game play. Another advantage of the 4G technology when compared with 3G, is that 4G is better in quality. In other words 4G provides a higher quality voice conversation and mobile internet connection capability, as 4G users never experience any freezing or disconnection while speaking on their mobile phone or surfing the internet.

The CVM question is asked in the ‘payment ladder’ format. In this format, the respondents are presented with a ladder of monthly prices in Turkish Liras (TL), and they are required to tick the highest amount they would pay for 4G, and to cross the first (lowest) amount they would not pay. The tick stands for the minimum WTP, and the cross stands for the maximum WTP. Therefore, we obtain an interval where the respondent’s true WTP lies. It should be noted that the payment ladder approach is preferable to an open-ended question because the open-ended elicitation technique may lead to large number of non-responses if the respondents find it difficult to answer, and it may be vulnerable to strategic bias.

The survey also includes a section that collects information about respondents’ experience with mobile services, and about their demographics. Using this information, we are able to analyse the sensitivity of consumers’ WTP towards these characteristics. Table 1 below presents a summary of the data collected in this section.

Table 1. Summary statistics for mobile use experience and demographics

Variable	No. obs.	Mean / %	Std dev.	Min.	25th %tile	Median	75th %tile	Max.
Mobile use experience								
Mobile device ownership	320							
Regular mobile phone	68	21%						
Smart phone	283	88%						
Tablet	76	24%						
Laptop	144	45%						
Mobile subscription	320							
I have	320	100%						
I do not have	0	0%						
Mobile subs. expenditure (TL/month)	320	107.23	91.98	20	50	80	130	800
Frequency of mob. int. use	320							
Every day	221	69%						
Several times a week	61	19%						
Several times a month	4	1%						
Very rarely	3	1%						
Never	31	10%						
Purpose for mob. int. use	288							
Search engines	172	60%						
E-mail	100	35%						
Instant messaging	190	66%						
Voice over IP	97	34%						
Videophone	72	25%						
Social networking sites	255	89%						
News sites	175	61%						
Watching videos	118	41%						
Watching movies	66	23%						
Other mobile applications	84	29%						
Cloud computing	31	11%						
Mobile hotspot	41	14%						
Time spent using mob. int. (hrs/week)	289	24.58	19.77	2	10	20	35	140
Demographic data								
County	320							
Girne	75	23%						
Güzelyurt	36	11%						
İskele	24	8%						
Lefkoşa	109	34%						
Mağusa	76	24%						
Age	320	33.75	10.68	18	26	31	40	63
Gender	320							

Female	156	49%						
Male	164	51%						
Marital status	320							
Married	171	53%						
Not married	149	47%						
Education	320							
Primary school	25	8%						
Secondary school	33	10%						
High shool / Vocational s.	118	37%						
University (2-year)	55	17%						
University (4-year)	81	25%						
Graduate school (Master)	5	2%						
Graduate school (PhD)	3	1%						
Employment	320							
Employed	226	71%						
Unemployed / out of labour force	94	29%						
Net monthly income (TL/month)	269	2504	1557	300	1600	2000	3000	11000

4 Results

4.1 Data

All 320 respondents of the survey answered the CVM section. Of these 320, 26 stated that they would not go for 4G (i.e., their WTP is nil). These respondents were further required to state the reason(s) why they would not go for 4G. Table 2 presents the list and the frequency of the reasons given.

Table 2. Reasons for zero WTP

#	**Reason**	**Frequency**
1	3G is good enough/do not need 4G	12
2	Do not need to use mobile internet	6
3	Do not know how to use internet	3
4	4G should be introduced without extra cost	2
5	3G is bad, 4G is even worse (?)	1
6	Prefers to use WiFi instead of 3G/4G	1
7	No specific reason	1
	Total	**26**

Reason #4 is considered to be a protest response, since it does not necessarily imply that the respondent puts zero value on a 4G service. Therefore we remove these 2 protest responses from the CVM study, so as to avoid a bias due to invalid zero bids. We are left with 318 observations, 24 of which are true zero WTP bids, and the remaining 194 are non-zero bids. Table 3 shows the frequencies for the ticks and for the crosses provided by the survey respondents.

Table 3. Frequencies of ticks and crosses

Bid (Turkish Liras per month)	Ticks (lower bound of WTP)	Crosses (higher bound of WTP)
0	24	24
5	47	0
10	66	14
15	50	25
20	56	36
25	37	47
30	18	42
40	9	46
50	8	45
70	2	28
100	0	9
150	1	0
200	0	2
300	0	0
Total	**318**	**318**

4.2 Turnbull lower bound mean for WTP

If we use a parametric approach to estimate the WTP using the CVM data, we need to make a distributional assumption. The estimated result is not robust against distributional misspecification. Therefore, we opt to take a non-parametric approach to estimating the mean WTP for 4G.

The first non-parametric estimate we take on is the Turnbull Lower Bound Mean (LBM), suggested by Turnbull (1976). Turnbull LBM is known to be a conservative WTP estimate, because it utilises only the lower bound information (the 'ticks') from the CVM survey. As the first step, we take the tick data from Table 3, remove the zero frequency bids, and calculate the cumulative number and proportion of ticks for each bid. This is given in Table 4. The empirical survivor function is graphed in Figure 1.

Table 4. Cumulative number and proportion of ticks

i	Bid (B_i)	Number of ticks	Cumulative number of ticks	Cumulative proportion of ticks (p_i)
1	0	24	318	100,00%
2	5	47	294	92,45%
3	10	66	247	77,67%
4	15	50	181	56,92%
5	20	56	131	41,19%
6	25	37	75	23,58%
7	30	18	38	11,95%
8	40	9	20	6,29%
9	50	8	11	3,46%
10	70	2	3	0,94%
11	150	1	1	0,31%
12	200	0	0	0,00%

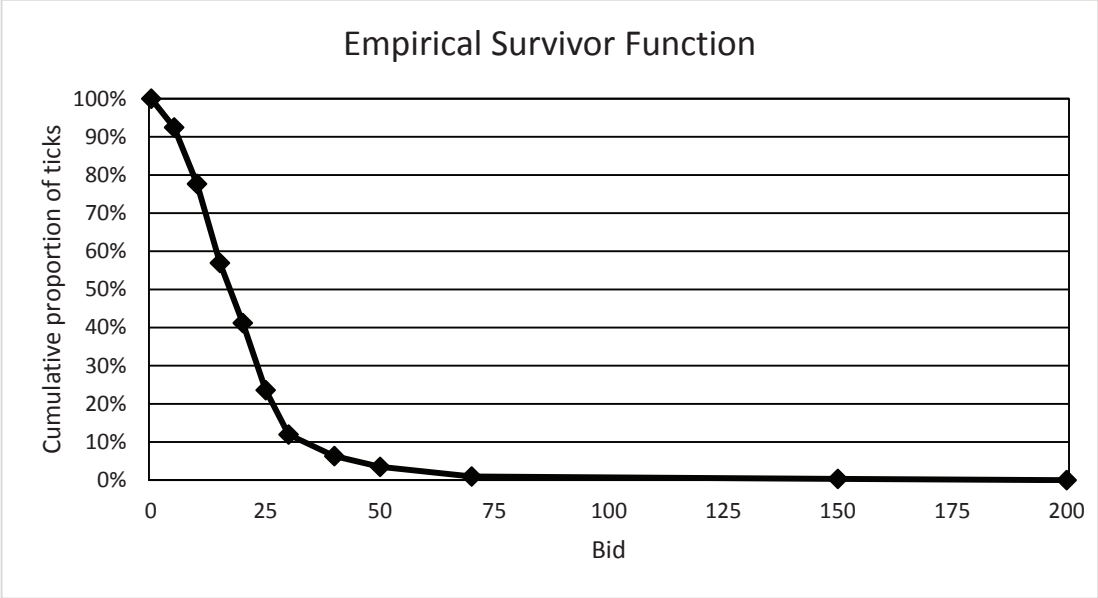


Figure 1. The empirical survivor function

The steps to calculate the Turnbull LBM mean is given by Haab and McConnell (1997). The formula for the mean is given as:

$$LBM(Turnbull) = p_1 B_1 + \sum_{i=2}^{m} p_i (B_i - B_{i-1})$$

where m is the total number of bids.

The formula for the variance of the LBM is given as:

$$Var(LBM) = \sum_{i=1}^{m} \frac{p_i (1 - p_i)(B_i - B_{i-1})^2}{N}$$

where N is the total number of observations. (which is 318 in our study)

Table 5 shows the calculation of Lower Bound Mean, and the variance of LBM.

Table 5. Calculation of LBM and Var(LBM)

					LBM	**Var (LBM)**
i	**Bid (B_i)**	**Number of ticks**	**Cumulative number of ticks**	**Cumulative proportion of ticks (p_i)**	**$p_i*(B_i-B_{i-1})$**	**$[p_i*(1-p_i)*(B_i-B_{i-1})^2]/N$**
1	0	24	318	100,00%	0,00	0,000
2	5	47	294	92,45%	4,62	0,005
3	10	66	247	77,67%	3,88	0,014
4	15	50	181	56,92%	2,85	0,019
5	20	56	131	41,19%	2,06	0,019
6	25	37	75	23,58%	1,18	0,014
7	30	18	38	11,95%	0,60	0,008
8	40	9	20	6,29%	0,63	0,019
9	50	8	11	3,46%	0,35	0,011
10	70	2	3	0,94%	0,19	0,012
11	150	1	1	0,31%	0,25	0,063
12	200	0	0	0,00%	0,00	0,000
				Total:	**16,60**	**0,18**

We calculate LBM = 16.60 TL/month, and Var(LBM) = 0.18.

4.3 Kriström mean

Kriström (1990) proposes another non-parametric approach to estimate mean WTP in a CVM study. This approach produces a higher estimate than the Turnbull approach. Kriström (1990) argues that this method is simple to execute and it will not produce inconsistent results due to any misspecified distribution.

The Kriström mean is approximated as the area under the survivor function in Figure 1. It assumes that the survivor function is linear within each bid interval, so we approximate the area under the survivor function as a sum of trapezoids:

Kriström mean = (5-0)*(92.45%+100%)/2 + (10-5)*(77.67%+92.35%)/2 + ... + (200-150)*(0%+0.31%)/2 = 19.81 TL/month

4.4 Upper bound mean

Vaughan and Rodriguez (2001) demonstrate a procedure to calculate an Upper Bound Mean for WTP, similar to the procedure for calculating the Turnbull Lower Bound Mean:

$$UBM = \sum_{i=1}^{m} p_i(B_{i+1} - B_i)$$

Taking on the calculation:

UBM = (5-0)*100% + (10-5)*92.45% + ... + (200-150)*0.31% =23.02TL/month

Therefore, the estimated non-parametric means for the WTP of a 30 Mbps 4G service can be ordered as follows:
Turnbull Lower Bound Mean (16.60 TL/month) < Kriström mean (19.81 TL/month) < Upper Bound Mean (23.02 TL/month)

4.5 Sensitivity analysis

Having calculated the WTP means estimated by the CVM methodology, we turn to analysing the sensitivity of the WTP to mobile use frequency and demographic characteristics of the respondents.

For this purpose, we estimate an empirical model for the maximum WTP for 4G, which depends in turn on the following explanatory variables: mobile use frequency (hours per week), age, gender, education (years of schooling) and income (net monthly income in Turkish Liras). We use the lower bound information (the 'ticks' from the CVM question) for the WTP data, and the answers to the survey questions for the explanatory variables data. We run an Ordinary Least Squares (OLS) regression in SPSS software package version 20. Table 6 depicts the estimation results from the sensitivity analysis.

Table 6. Sensitivity Analysis

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**p-value**
	B	**Std. Error**	**Beta**		
(Constant)	-7,015	5,875		-1,194	0,234
mobileuse	,123***	0,043	0,178	2,882	0,004

age	,505***	0,108	0,324	4,685	0,000
gender	1,386	1,773	0,049	0,782	0,435
education	,756**	0,35	0,144	2,162	0,032
income	-,002***	0,001	-0,223	-3,099	0,002
R	0,345				
R Square	0,119				
Adjusted R Square	0,101				
Std. Error of the Estimate	13,539				
F	6,414				
p-value	0,000				

Asterisks *, ** and *** denote significance at the 10 percent, 5 percent and 1 percent level, respectively.

The regression output displays an R-Squared value of 0,119 and an Adjusted R-Squared value of 0,101. This means only about 10% of the variation in WTP figures can be explained by the explanatory variables that we picked. However, this does not mean that our analysis is not useful, as our main aim is to find if there is any statistically significant relationship between demographic characteristics and willingness to pay for 4G.

The estimation results indicate that mobile use, age, education and income are significantly related with people's WTP for 4G, whereas we find that gender has no role to play (with a p-value of 0,435). The higher the mobile use frequency, the age, and the years of schooling the more money people are willing to pay for 4G. Surprisingly, we find a negative relation between monthly income and WTP. People are willing to pay 0,123TL more for 4G for every hour of mobile use per week, or 0,505TL more for every year they are older, or 0,756TL more for every year spent in schooling. People are willing to pay 0,002TL less, for every TL more in monthly earnings. These results suggest that a hypothetical respondent whose mobile use and demographic characteristics are at the means of those of the respondents used in the OLS regression (i.e., 25,72 hours of mobile use per week, 32,47 years of age, 12,29 years of education, and 2571,54 TL of monthly income) would display a willingness to pay for 4G of 16,69 TL per month. This is in fact very close to the Turnbull Lower Bound Mean WTP for 4G, estimated to be 16,60 TL per month in Section 4.2.

We suspect the surprising sign of the coefficient on income occurs due to missing values in the data. 51 respondents of the survey refused to report their monthly income. SPSS handles the missing values in the data by the 'listwise deletion' method which means it completely omits the cases with the missing values in its analysis. It is highly probable that the missing values in income are not random; we believe that it is mostly those people with higher incomes who did not answer the income question. This produces bias in the estimated coefficient of the income variable in the regression analysis. Therefore the outcome that there is a negative relation between WTP for 4G and income is not reliable.

We conclude from the sensitivity analysis that the willingness to pay for 4G is positively related with mobile use frequency, age and education. This finding should be of interest to telecommunications policy makers, and to GSM operators analysing 4G investment possibilities.

4.6 Revenue and consumer surplus

We further investigate the contingent valuation data by aggregating the respondents' WTP responses to form a demand curve of 4G services for the whole market, and to develop an estimate

of the consumer surplus, which is measured by the area under the demand curve but above the price charged. Demand curve formed using the sample data is given in Figure 2.

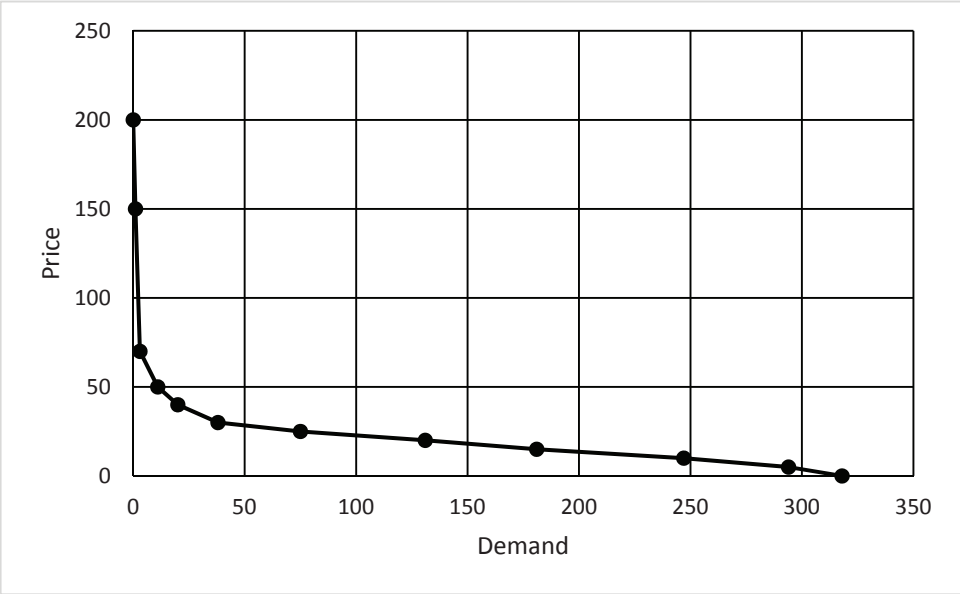


Figure 2. Demand Curve for 4G

We apply this curve to the total number of mobile subscribers in the market, by assuming the same structure of WTP frequencies as the sample. According to Yeniduzen (2015), as of July 2015, there are more than 500.000 active subscribers of mobile services in the North Cyprus market. We use this information to calculate the aggregate monthly revenue and consumer surplus figures under alternative pricing strategies, as shown in Table 7.

Table 7. Aggregate Monthly Revenue and Consumer Surplus with alternative prices

Price willing to pay (TL/month)	**Number of respondents**	**Cumulative number of respondents**	**Cumulative percentage of respondents**	**Number of active mobile subscribers**	**Total revenue (TL/month)**	**Consumer Surplus (TL/month)**	**Price Elasticity**
0	24	318	100,00%	500.000	0	9.903.125	NA
5	47	294	92,45%	462.250	2.311.250	7.497.500	0,04
10	66	247	77,67%	388.350	3.883.500	5.371.000	0,26
15	50	181	56,92%	284.600	4.269.000	3.688.625	0,77
20	56	131	41,19%	205.950	4.119.000	2.462.250	1,12
25	37	75	23,58%	117.900	2.947.500	1.652.625	2,45
30	18	38	11,95%	59.750	1.792.500	1.208.500	3,60
40	9	20	6,29%	31.450	1.258.000	752.500	2,17
50	8	11	3,46%	17.300	865.000	508.750	2,61
70	2	3	0,94%	4.700	329.000	288.750	3,44
150	1	1	0,31%	1.550	232.500	38.750	1,39
200	0	0	0,00%	0	0	0	7,00
300	0	0	0,00%	0	0	0	NA

As observed from Table 7, a consumer surplus of almost 10M TL will accrue every month, if 4G is introduced without additional fees. As the price is increased, the 4G providers will start to earn revenues, but the aggregate consumer surplus will fall. The higher the price, the participation of mobile subscribers in 4G will drop. For instance, if 4G is priced at 10TL per month, 77,67% of mobile subscribers will participate, but if the price is raised to 40TL per month, only 6,29% will participate. Reynisdottir et al. (2008) suggest that a good way to price a new service is to look at the price elasticity. If the price is picked from the inelastic part of the demand curve, this will prevent a higher than proportional decrease in participation numbers. Therefore, the total revenue will increase, without hurting participation too much. As shown in Table 7, demand for 4G is inelastic up to the price of 20TL per month. A price of 15 TL per month, for instance, will both maximise monthly revenues at 4,27M TL, and also keep more than half of mobile users benefiting from 4G.

Estimating the revenues and the resulting consumer surplus is essential in designing tenders and licensing auctions. Policy makers can combine this knowledge with additional information about the cost requirements of the investment to maximise the value of the tender/auction for the government. Without an informed auction design on the government's side, the GSM operators will easily get all of the surplus for themselves.

5 Discussion and conclusion

The aim of this study is to explore the current issues in the North Cyprus mobile services market, and to find out the welfare impact of the introduction of Fourth Generation (4G) mobile services technology.

Currently, 3G is the only mobile technology available in North Cyprus. There are rumours that the government will soon be auctioning 4G licences. Similar to North Cyprus, there are many regions and countries in the world which have not yet launched 4G. In fact, most regions which do have 4G coverage have to settle for only a fraction of the top speeds offered by the most advanced technology, which is 300 Mbps achieved by 4G LTE-A CA technology (Ericsson, 2014). USA, for instance, ranks 26th in the world for 4G data rates, with an average rate of 7 Mbps (Westwood, 2015). There is room for growth for the 4G market all over the world, and there is need for more empirical research on the sector in order to determine whether new investments on technology are viable.

One potential value of mobile communications is that it could replace fixed broadband connection to homes, especially in remote areas where there is no existing fixed infrastructure. Laying new fibre or cable infrastructure to sparsely populated regions is not cost-efficient. Wireless connection via mobile operators could be a solution to providing broadband access to these areas. The EU's Digital Agenda requires that the entire EU be covered by broadband above 30 Mbps by 2020 (EC, 2015). 4G could prove to be the most economical way to achieve this aim in areas currently lagging behind, such as North Cyprus.

In this study, we find that 4G is very valuable for consumers in North Cyprus. The mean willingness to pay of mobile users for 4G is in the range of 16.60TL/month to 23.02TL/month, according to various non-parametric contingent valuation techniques. In fact, this is almost 1% of the average monthly income of the survey respondents (reported as 2,504.41 TL per month in Table 1). This is a message to the government of North Cyprus, and to the administrations of all regions not covered by 4G, that they need to accelerate the pace of introduction of 4G.

Another outcome of this study is that the introduction of 4G without extra fees will create a consumer surplus of 9.9M TL per month (118.8M TL per year). This amounts to 1.3% of the yearly

Gross Domestic Product of North Cyprus, reported to be 8858M TL in 2014 (Havadis, 2015). If the price for the upgrade to 4G is set at 15TL/month, then the consumer surplus is estimated to be 3.7M TL/month, and a revenue of 4.3M TL/month will be generated. At this price level, the majority of the population (57%) will still find it worthwhile to participate in 4G. When designing the auction for 4G licensing, policy makers can utilise this knowledge in order to maximise the value of the auction for the government.

In summary, the findings of the stated preference study presented are highly significant. We conclude by noting that the realised values could even exceed the figures calculated. In our survey, the interviewees made their choices for the 4G prices without actually experiencing the benefits. After 4G is implemented in North Cyprus and the consumers are more aware of the capabilities of the technology, they could place a higher value on 4G, if asked about the compensation they would require to give up 4G. This is in fact the difference between WTP and WTA (willingness to accept) evaluations, and theorists have long debated which of these represents the true valuation of a commodity or a service (Hanemann, 1991). A comparison of the two techniques can be made for the valuation of 4G in North Cyprus, with a follow-up study surveying the consumers after the introduction of 4G.

References

1. Amirnejad, H., Khalilian, S., Assareh, M. H., & Ahmadian, M. (2006). Estimating the existence value of north forests of Iran by using a contingent valuation method. *Ecological Economics*, 58(4), 665-675.

2. Arrow, K., Solow, R., Portney, P.R., Leamer, E.E., Radner, R., & Schuman, H. (2001). Report of the NOAA Panel on Contingent Valuation.

3. Dagli, O., & Jenkins, G. P. (2016). Consumer preferences for improvements in mobile telecommunication services. *Telematics and Informatics*, 33(1), 205-216.

4. Ericsson (2014). *Ericsson Mobility Report*, Sweden. Retrieved May 14, 2015, from http://www.ericsson.com/res/docs/2014/ericsson-mobility-report-november-2014.pdf

5. European Commission (2015). *Digital Agenda for Europe*. Retrieved March 26, 2015, from http://ec.europa.eu/dgs/connect/en/content/digital-agenda-europe

6. Haab, T.C., & McConnell, K.E. (1997). Referendum Models and Negative Willingness to Pay: Alternative Solutions. *Journal of Environmental Economics and Management*, 32(2), 251-270.

7. Hanemann, W.M. (1984). Welfare Evaluations in Contingent Valuation Experiments with Discrete Responses. *American Journal of Agricultural Economics*. 66(3), 332–341.

8. Hanemann, W.M. (1991). Willingness to pay and willingness to accept: how much can they differ? *The American Economic Review*. 81(3), 635–647.

9. Hanemann, M., Loomis, J., & Kanninen, B. (1991). Statistical Efficiency of Double-Bounded Dichotomous Choice Contingent Valuation. *American Journal of Agricultural Economics*, 73, 4, 1255-1263.

10. Havadis (2015). DPÖ GSYİH ve GSMH oranlarını açıkladı. *Havadis*, 6 August 2015. Retrieved September 14, 2015, from http://www.havadiskibris.com/Haberler/ekonomi/dpo-gsyih-ve-gsmh-oranlarini-acikladi/62962

11. Kriström, B. (1990). A Non-Parametric Approach to the Estimation of Welfare Measures in Discrete Response Valuation Studies. *Land Economics*, 66(2), 135-139.

12. Lee, C. K., & Han S. Y. (2002). Estimating the use and preservation values of national parks' tourism resources using a contingent valuation method. *Tourism Management*, 23(5), 531-540.

13. List, J.A. (2001). Do Explicit Warnings Eliminate the Hypothetical Bias in Elicitation Procedures? Evidence from Field Auctions for Sports Cards. *The American Economic Review*, 91(5), 1498-1507.

14. Montes de Oca, G., & Bateman, I. J. (2006). Scope sensitivity in households' willingness to pay for maintained and improved water supplies in a developing world urban area: Investigating the influence of baseline supply quality and income distribution upon stated preferences in Mexico City. *Water Resources Research*, 42(7).

15. Orme, B.K. (2006). *Getting started with conjoint analysis: strategies for product design and pricing research*. Research Publishers LLC, Madison, Wisconsin.

16. Reynisdottir, M., Song, H., & Agrusa, J. (2008). Willingness to pay entrance fees to natural attractions: An Icelandic case study. *Tourism Management*, 29(6), 1076-1083.

17. Ciriacy-Wantrup, Siegfried von (1947). Capital Returns from Soil Conservation Practices. *Journal of Farms Economics*, 29, 1180-1190.

18. Turnbull, B.W. (1976). The Empirical Distribution Function With Arbitrarily Grouped, Censored and Truncated Data. *Journal of the Royal Statistical Society*, B38(3), 290–295.

19. Vaughan, W.J., & Rodriguez, D.J. (2001). Obtaining Welfare Bounds in Discrete-Response Valuation Studies: Comment. *Land Economics*, 77(3), 457-465.

20. Venkatachalam, L. (2004). The Contingent Valuation Method: A Review. *Environmental Impact Assessment Review*, 24, 89–124.

21. Westwood, S. (2015). *The State of LTE*. OpenSignal, USA. Retrieved May 14, 2015, from http://opensignal.com/assets/pdf/reports/2015_03_opensignal-state-of-lte-report_mar_2015.pdf

22. Whittington, D. (1998). Administering Contingent Valuation Studies in Developing Countries. *World Development*, 26(1), 21–30.

23. Yeniduzen (2015). Abone sayıları mercek altında. *Yeniduzen*, 9 July 2015. Retrieved September 14, 2015, from http://www.yeniduzen.com/Haberler/ozel-haber/abone-sayilari-mercek-altinda/53461.

THE ROLE OF MIS IN THE BANKING SYSTEM IN ALBANIA

M.Sc. Jona MULLIRI[206]

M. Sc. Eris ZEQO[207]

Prof. Ass. Lindita MUKLI[208]

Abstract

Nowadays, data information is the most important element that financial and banking systems possesses. It is difficult to take good decisions without information. Also it is not possible to obtain appropriate information without adequate information systems. The basic concept of an information system is to provide accurate and relevant information at the proper time at all levels of management. Banking system in Albania has given a great importance to the implementation of management information systems. The purpose of this study is:

- *To identify usage level of management information systems in commercial banks in Albania, for planning and decision making.*
- *To assess the use of the functions offered by these information systems and to identify the reasons of disuse or dysfunction of these systems.*

This study aims to define the role of Management Information System in banking system in Albania. The first phase of this study was the distribution of questionnaires in commercial banks in Albania, by evaluating the current situation of MIS. The collected data were analyzed to identify the usage level of MIS in commercial banks in Albania. Also we want to specify what actions should be taken in order to implement a MIS system that can provide efficient information in base of the environment requirements and support the decision-making process.

In order to achieve our goal, we have been focused in some aspects:

1. *Is MIS implemented in banking system in Albania?*
2. *Identifying the factors that affect the quality of information produced by MIS.*
3. *Evaluate the importance of MIS in decision-making process.*

As result, we can specify and that management information systems have an important role in obtaining good information for an efficient decision making process.

MIS is used to create reports for specific needs (financial and treasury) which get data from different sources and different files, eliminating manual work and so many human errors that can be made if these reports are manually processed. Voluminous data cannot be managed as proper information for the reporting process without MIS. Assuring qualitative and quantitative data from MIS with proper timely information helps managers in decision-making.

***Keywords**: MIS (Management Information System), Planning, Banking System, Commercial Banks.*

[206] Lecturer at Agricultural University of Tirana, jmulliri@ubt.edu.al

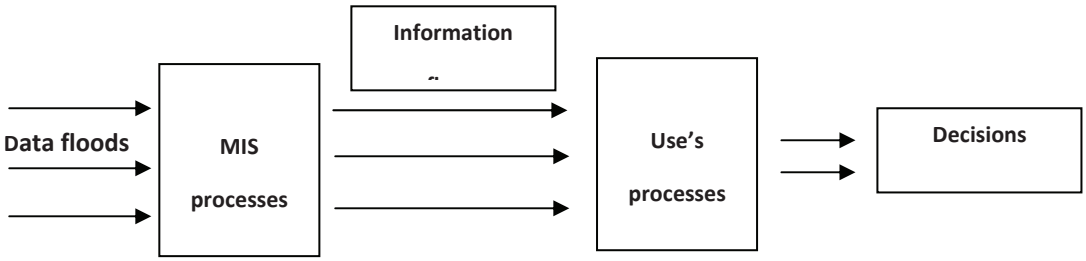
[207] Lecturer at Aleksander Moisiu University of Durres,eris_zeqo@yahoo.it

[208] Lecturer at Aleksander Moisiu University of Durres, mukli_lindita@yahoo.com

Introduction

Worldwide banking system is facing with rapid changes. These changes are observed not only in developed countries but also in developing ones. The use of the latest technologies will be the main force of the development of banking industry in the future. Strategic planning is the way to achieve the desired economical objectives. Strategic planning is divided into three main parts, where we are, where we want to be and how we reach our goal.

Management Information System (MIS) is not a new concept in banking system. Banks and financial organizations have used this terminology referring to the process of generating various reports, analyses and support decision-making process to managers. Management Information Systems is an idea associated with man, machine and methods for gathering information from different sources, processing and distribution of this information in order to facilitate the process of decisions - making of business.



MIS and decision - making process

MIS can also be defined as a system useful to most of banks to provide high quality of information and precision necessary to manage these financial institutions effectively. Management Information System is an integrated system that helps the management with relevant information to run business effectively and efficiently.

There are some necessary components to function MIS like: computer hardware and software, data and information, manual procedures, mathematical and reporting models for analysis and human recourses. The data must be collected, stored, processed, manipulated, analyzed and distributed like e qualitative and quantitative information to managerial level. Banks and organization with a well-defined information system will generally have a competitive advantage comparing to the organizations with poor MIS or without MIS.

MIS is a computer-based information system which needs a database, based on technology tools like data warehousing and data mining to provide efficient information for different employers in the organization.

Qualified people are a vital component of any information system. All workers in an organization must be trained to utilize capabilities of management information system. The personnel include development and operation managers, system analysts and designers, database administrators, programmers, computer security specialists and computer operators.

The purpose of this paper is to identify the usage level of management information systems in commercial banks in Albania, for planning and decision making and identify the reasons of disuse or dysfunction of these systems.

Today, banks are gradually passing from using information systems for rationalize operations to using information systems for strategic applications: to improve customer services and to achieve competitive advantage.

Literature review

According to lecturer review Management Information System (MIS) provides information that organizations need to manage themselves efficiently and effectively (Brien, 1999).

Management information systems are typically computer systems used to manage five primary components: hardware, software, data (information for decision making), procedures (design, development and documentation), and people (individuals, groups, or organizations). Management information systems are distinct from other information systems, as they are used to analyze and facilitate strategic and operational activities (Lucey, 2005). Management Information System can be classified as a system, providing different level of management with proper and timely information necessary to facilitate decision-making process and enable organizations planning, controlling, and performing operational functions effectively.

Alternatively, Management Information System can be defined as "a computer-based system that provides information and support for managerial decision making" (Daft et al, 2010).Management Information System can be defined as "a system to convert data from internal and external sources into information and to communicate that information, appropriately, to managers at all levels in all functions by enabling them to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible" (Lucey, 2004, p.2).

Management information systems (MIS), produce fixed, regularly scheduled reports based on data extracted and summarized from the organization's underlying transaction processing systems to middle and operational level managers to identify and inform structured and semi-structured decision problems (Laudon, 2010).

The information required to implement a good MIS system needs to be accurate, complete (to cover all aspects of the business) and available.

According to Pride there are five important functions of Management Information Systems identified as below (Pride et al, 2009):

- Collecting data. The collection of data is necessary for decision-making in short-term and long-term perspectives.
- Storing data. Keeping and storing data in an effective format and a database in order to ensure the right of data that can be retrieved in a minimum duration of time whenever necessary.
- Updating data. Ensuring that changes related to the data that has been stored are reflected on the system.
- Processing data into information. The application of various analytical methods with the usage of information technology can transform raw data into meaningful information.
- Presenting information to users. Increasing the level of presentability of data that can be used for decision making by relevant parties.

A decision is a choice between different alternatives. At the end, the decision is the result of the selected choice. MIS has the responsibility to support this process in all necessary levels. The most part of the decisions are taken from the management, but some other decisions are taken from lower levels of the bank, too.

Simon defined four stages of the decision making process (Simon, 1960):

- Intelligence (understanding the problems of the organization)
- Design (the identification of the solutions of the problems)
- Choice (choosing the best alternative)
- Implementation (implementation of the alternative chosen and monitoring it after the implementation).

Adequate decisions cannot be taken without the acurate information, which can be provided by MIS.

Benefits of using and implementing MIS in our banking system:

- Facilitates the planning process: Management Information System improves the quality of planning by providing relevant information to the decision-making process.
- Minimizes the information overload: MIS transforms voluminous data into summarized information there by avoiding the confusion which may arise when managers are flooded with detailed facts.
- Integratin and coordination: MIS facilitates integration of specialized activities and various modules of the banking system by keeping each department informed of the problem and requirements of other departments.It iIntegrates all routine transactions within the bank, resulting to a higher productivity.
- Management Information system helps to create a connection between managerial planning and control. The MIS usage improves the ability of management to evaluate and improve performance of the institution. The computer system which is a part of MIS has increased the data processing, storage capabilities and simplified the accesing process.
- Management Information System simplifies the reporting process and information flows between the departments. MIS improves operations, transactions, increased collaboration with customers and cost-reducing.

Method

This study aims to define the role of Management Information System in banking system in Albania. The first phase of this study was the distribution of questionnaires in commercial banks in Albania, by evaluating the current situation of MIS. The collected data were analyzed to identify the usage level of MIS in commercial banks in Albania. Also we want to specify what actions should be taken in order to implement a MIS system that can provide efficient information in base of the environment requirements and support the decision-making process.

In order to achieve our goal, we have been focused in some aspects:

1. Is MIS implemented in banking system in Albania?
2. Identifying the factors that affect the quality of information produced by MIS.
3. Evaluate the importance of MIS in decision-making process.

MIS in Albanian bank's:

There is a great usage of hardware, also computers with different level of operating system, different speed of processors and RAM capacity. They have used the latest media to broadcast process like optical fibers and wireless transmission. The banks have also developed their own applicative systems to automate the processes.

The Management Information System environment is composed by the following elements:

- Core Banking System
- Data Warehouse
- Reporting modules

The core banking system is the heart of the operations. It captures all the data for clients, assets, deposit account, loan and credit processing, transactions, reporting tools etc. There ate different core banking systems used in the banking system in Albania like: Delta, Midas, Flex Cube, Boss etc.

A core banking system is the back-end data processing application to process all transactions that have occurred during the day and post updated data on account balances to the mainframe. This database is an essential component of MIS.

Some of our banks use Oracle OFSA that combines all the data gathered from the departments of a bank in a single program, an integrated software that operates with a single database that is Data Warehouse, so that different departments can easily share information and communicate with each other. OFSA includes functional modules for financial data management, transfer pricing, activity analyzer, risk management, budgeting and planning (Sitronics). Other reporting technique used are Business Object (BO) and Microsoft Reporting Database (MRD), which use the data stored in the core banking system. With Business Object we can provide performance management, query, reports, analysis, planning, and information management.

Nowadays MIS it is a necessity for our banks. We were able to identify some main aspect supported by Management Information system from the questionnaire. MIS is used to create reports for specific needs (financial and treasury) which get data from different sources and different files, eliminating manual work and so many human errors that can be made if these reports manually processed. Voluminous data cannot be managed as proper information for the reporting process without MIS. From the business aspect reports are mainly related with the financial situation of the company, required analysis for decision-making, mandatory reporting in base of legislation, verification and monitoring of the information accuracy, planning of business development, process evaluation etc.

The main processes supported by Management Information System in Albanian banking system are:

1. Profit & Lost account
2. Budgeting
3. Strategic Planning
4. Cost accounting
5. Cash flow statement
6. Balance sheet
7. Customer Satisfaction

Results

We applied a research study at Albanian banks which aims to identify the usage of Management Information System in the banking system. Below are shown some of the main questions and their results.

1. Is MIS implemented in your bank?

Table 10, MIS implementation

		Percent	Valid Percent	Cumulative Percent
Valid	Yes	95,7	95,7	95,7
	No	4,3	4,3	100,0
	Total	100,0	100,0	

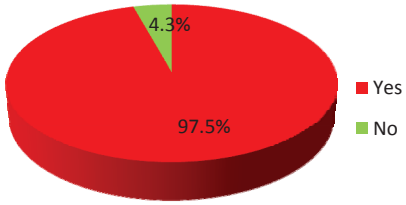


Figure 4

The banking system in Albania has made very significant development and investment in implementing Management Information Systems and related technologies. 95,7% of the interviewed banks have given a positive response to the question for the implementation of MIS in their system and only 4,3% of them have not implemented MIS yet but they are in process development. We have to emphasize that they are well known with the importance and role of MIS in their system.

2. Are you satisfied with the level of MIS implementation?

Table 11, satisfaction of MIS implementation level

		Percent	Valid Percent	Cumulative Percent
Valid	Not too much	17,0	17,0	17,0
	Enough satisfied	18,0	18,0	25,0
	Satisfied	52,0	52,0	87,0
	Very satisfied	13,0	13,0	100,0
	Total	100,0	100,0	

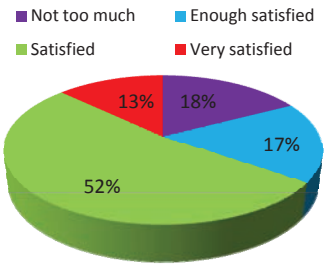


Figure 5

We also asked the employs if they are satisfied with the level of MIS implementation. The responses are shown below. 13% of the bank employers are very satisfied with the level of MIS and the facilities offered in decision-making and other relevant reporting processes. Most of them find that there are necessary some improvement in their MIS system, related with hardware and software equipment, centralized database for storing the data gathered from Transaction Processing Systems like Data warehouse, human resource requirements to develop, operate, update, and maintain MIS etc.

We found out that some banks have created MIS departments as part of their structure, with the average of 5 workers in the department. The banks that have implemented earlier MIS in their system, have given an important role to the human recourses specialized in that field. Training sessions and user-friendly interface are very important for a proper application of MIS.

3. Do you have Data Warehouse in you banking system?

Table 12, Data Warehouse

		Percent	Valid Percent	Cumulative Percent
Valid	Yes	65,2	65,2	65,2
	No	33,3	33,3	100,0
	Total	100,0	100,0	

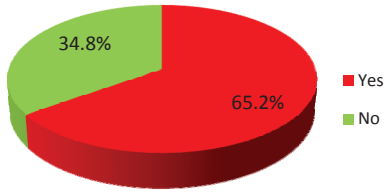


Figure 6

Core banking system plays a good role in ensuring data but Data warehouse and Business Intelligence reporting tools should be implemented. Data Warehouse contains integrated data from operational databases structured for reports and analysis. We asked our banks is they have Data warehouse implemented in their system. The result are shown in table 3 and figure 3.

4. Is MIS important for decision-making process?

Table 13, MIS importance in decision-making process

		Percent	Valid Percent	Cumulative Percent
Valid	Enough	11,0	11,0	11,0
	Important	33,4	33,4	44,4
	Very important	55,6	55,6	100,0
	Total	100,0	100,0	

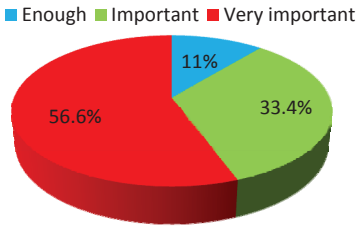


Figure 7

Regarding to the importance of MIS in decision-making process, see table 4, the banks with long usage experience and well implemented MIS systems gave a great importance of MIS in this process. Banks can get qualitative and quantitative data from MIS with proper timely information that helps managers in decision-making.

There are also some problems identified during the questionnaire process in some of our banks. We can specify that in some cases the data are not stored in database systems, making difficult the process of accessing and analyzing data to provide information in time.

Historical data are necessary for a good decision-making process but these historical data are missing. In other cases these is no automation of the routine transactions and the reporting process.

In some cases managers has specified that they are not satisfied with the actual information provided because it does not support the decision-making process of the bank, most of the information is retrieved manually and therefore it can be delayed and it may contain errors due to manual data processing.

Also another problem is the communication between departments. Even that information is available, doesn't mean that managers can have it or maybe they are not even aware of it. Management doesn't know what information is available, and on the other hand IT doesn't know what information management wants to have.

Conclusion

- Management Information System has a very significant role to ensure accurate information to reach effective decisions in the organization based on our questionnaire results.
- By using MIS banks can assure appropriate shared information between all the departments in the organizations and help the management in the decision-making process.
- This study concluded that our banks are well known with the importance and role of MIS in their system and they have made very significant development and investment in implementing Management Information Systems and related technologies.
- Data Warehouses are implemented in most of the Albanian banking systems to meet these needs. By Using Data warehouse information can be organized in a way for conducting analytical processes on large data sets.
- MIS is used to create reports for specific needs (financial and treasury) which get data from different sources and different files, eliminating manual work and so many human errors that can be made if these reports are manually processed. Voluminous data cannot be managed as proper information for the reporting process without MIS. Assuring qualitative and quantitative data from MIS with proper timely information helps managers in decision-making.

Recomandations

Referring to the questionnaires, we concluded from our interviewers that MIS is not a new concept for our banking system. But from identified problems we want to emphasize that there is a need for a well-implemented and well-organized MIS that can provide management to increase profits and reduce operating costs (P & L account).

As we specify that MIS is the interaction of human resources, technologies and procedures we recommend banks to give high importance to:

- Training session of the employers of the MIS department, for well-knowing the functions offered by MIS and right usage of them.
- Implementing Business Intelligence tools like OLAP (Online analytical processing), data mining for better analyzes and decision-making process.
- Make DWH fully operational.

References

1 Ajayi, I. A. and Omirin, Fadekemi F. (2007). *The Use of Management Information Systems (MIS) In Decision Making In the South-West Nigerian Universities.*

2 Akram Jalal Karim "The significance of Management Information Systems for enhancing strategic and tactical planning". *JISTEM J.Inf.Syst. Technol. Manag*. (Online) Vol. 8, No. 2, 2011, p. 459-470. ISSN online: 1807-1775.

3 Baskerville, R.L. and Myers, M.D., (2002), Information systems as a reference discipline. *MIS Quarterly*, 26(1), 1–14.

4 G.Satyanarayana Reddy (2009). Management information system to help managers for providing decision making in an organization . *International Journal of Reviews in Computing*, ISSN: 2076-3328.

5 Kozak S. (2005). The role of information technology in the profit and cost efficiencyimprovements of the banking sector. February 2005, *Journal of Academy of Business and Economics*.

6 Laudon, Kenneth C.; Laudon, Jane P. (2009). *Management Information Systems: Managing the Digital Firm (11 ed.).*

7 Lucey, T. (2004) "*Management Information Systems*", Cengage Learning.

8 O'Brien, J (1999). *Management Information Systems – Managing Information Technology in the Internetworked Enterprise*. Boston: Irwin McGraw-Hill.

9 Pride, WM, Hughes, RJ & Kapoor, JR, 2009, *Business*, Cengage Learning

10 Ralph M. Stair, George Reynolds, George W. Reynolds. (2009). *Principle of Information Systems.*

11 Rimvydas Skyrius(2013). The Development of Management Information Needs. *International Journal of Artificial Intelligence and Interactive Multimedia*, Vol. 2, Nº 3.

12 Whitten J. L., Bentley L.D. and Dittman K.C. (2004). *System Analysis and Design Methods*, Mc.Graw-Hillk, New York.

ADRIATIC COAST'S TOURIST MARKET SEGMENTATION BASED ON TOURIST DESTINATION IMAGE FACTORS

dr.sc. Marko Šantić
Chamber of Economy of the Federation of B&H
E-mail: davidsantic@gmail.com
Prof.dr.sc. Arnela Bevanda
Faculty of Economics University of Mostar, B&H
E-mail: arnela.budimir@sve-mo.ba
Prof.dr.sc. Sanja Bijakšić
Faculty of Economics University of Mostar, B&H
E-mail: sanja.bijaksic@sve-mo.ba

Abstract

The goal of the empiric research is to recognize, classify and define useful market segments of the Adriatic Coast tourist market for the future marketing strategies by using certain statistic techniques that are based on the effects of various image factors of tourist destinations. On the basis of the research goal, the following hypothesis was set: When tourists choose destinations, their basic preferences, related to image factors, are different enough to be used for differentiation of important tourist market segments. The sample included 1,000 respondents. The primary data were collected by field research, using the survey technique. Internal consistency, that is, reliability of each measurement scale was tested by Cronbach alpha coefficient. Method of cluster analysis was used in data analysis, where modal method, namely k-means approach, was used as a method of grouping. By using cluster analysis, five segments of tourist offer were classified. Research data have confirmed the hypothesis and shown that if tourist destinations want to be competitive in chosen segments, they have to undertake certain corrective activities, especially when they plan and implement communication strategies.

Keywords: *tourism market, tourist destination, image factors, market segments, cluster analysis*

Introduction

The image of tourist destination has been in research focus for more than 30 years. Most of tourist destination definitions emphasise that image is "the sum of beliefs, ideas, and impressions that a person has of a destination" (Crompton, 1979, pp.19) In other words, destination image is totality of ideas, viewpoints, knowledge, experience, expectations, wishes, and feelings that people (individuals or groups) relate to a certain tourist destination. (Vukonić, Čavlek, 2001, pp.130) Destination image can be analysed in two following phases: primary image (image developed upon tourist destination visit) and secondary image (a visitor creates impression before he/she visits a certain destination) (Lopesi, 2011, pp.312). Therefore, it is necessary that the image contains personal impressions and perceptions of visitors that are a result of creating and delivering the promised brand value. (Vranić, Cicvarić Kostić, and Bakic, 2014, pp.115)

The fact is that almost every tourist destination functions based on the principle of multi-functionality of both supply side and its demand (different customer segments). Accordingly, it is possible to emphasise that tourist destination image represents simplification of numerous associations and parts of information related to some locality in mind's attempt to process and „extract" great number of disposable data on locality concerned.(Križman Pavlović, 2008, pp.91) In that sense, certain authors (Gallarza, Saura and Garciam, 2002, pp.59) apostrophise the following four basic characteristics of tourist destination image: complexity, multi-layered, relativity, and dynamism.

1. Empirical research

Results and conclusions of conducted empirical research are presented further in this paper. Using certain statistical methods and based on different factors' of tourist destination image influence, the aim of empirical research was to recognise, select, and define useful market segments on tourist market of the Adriatic coast for future marketing strategies.

Starting from the confirmed aim the following hypothesis was set:
H0: *In process of tourist destination selection basic preferences of a tourist are, with regards to the factors of image, sufficiently different so that they can serve to differentiate significant market segments of the tourists*. Its acceptance or rejection has an aim to check obtained cognitions in theoretical research framework.

1.1.Research methodology

Primary data collection was conducted by field research applying questioning technique based on a survey. Empirical research was conducted at the area of the Adriatic coast's tourist destinations where 1,000 respondents were surveyed. External or field research was used to test the set hypothesis and for the purpose of primary data collection.

Research instrument is a questionnaire written in the following five languages: Croatian (domestic), English, German, Italian, and Czech. The questionnaire is developed relying on relevant scientific literature where certain adaptations to research topic were made. It consists of a set of claims with which the respondents will express the intensity of their agreement or disagreement. Eleven questions in the questionnaire relate to socio-demographic characteristics of the respondents. Besides them, the respondents answered the questions on number of arrivals to a tourist destination, means of transport that they used to get to a destination, duration of decision-making on travel, way of informing and motives to come to a destination. Tourist destination image factors are analysed in over than 33 questions/claims. Likert scale with five degrees was used to measure respondents' attitudes. This scale is called balanced scale in which medium level (3) is determined as neutral, and

from every side of neutral level there is an equal number of degrees in positive and negative direction (from 1- I totally disagree to 5 – I totally agree). Likert scale has some advantages from respondents' viewpoint because it enables simple and understandable filling of a questionnaire. From researcher's viewpoint this scale, although ordinal one, is treated as an interval scale in data processing so it is suitable to calculate measures of the central tendency.

Pretesting of measurement instrument was conducted in order to eliminate eventual problems from the aspect of understanding of certain claims and difficulties in answering them.

Analysed variables were described using descriptive techniques in consistence with data type and probability of theoretic distribution form that characterise values of those variables.

The methods of multi-variation analysis:

- Are used to test internal consistency, i.e. reliability of certain measurement scales (Cronbach alpha coefficient), validity of measurement scales was confirmed;
- Apply cluster analysis in which the respondents are grouped into homogeneous groups (clusters), big enough to be compared with regards to different characteristics. K-means algorithm of clustering was used.

2. Interpretation of research results

Socio-demographic characteristics of the whole sample are shown in Table 1. Out of total number of respondents (random sample elements) there were 55.1% of females and 44.9% of males. This gender structure of the sample shows that females are "readier" to respond to questions from the questionnaire. With regards to age groups it is evident that the visitors of the observed tourist destination are, almost, normally distributed (group up to 27 years of age; 33.1%, from 27 to 47 years of age; 37.5%, from 47 to 64 years of age; 23.4%), except from a group over 65 years of age in which there were 6% of respondents. Most of the respondents have completed two-year college or university (75%), 23% of them have completed secondary education, and around 2% of respondents have completed elementary education. Regarding respondents' structure from the aspect of annual revenue it can be concluded that the visitors of the observed destinations in the highest percentage belong to middle higher class (35.6%), middle lower class (29.4%), and according to European revenue criteria lower class had a share of 24.4%, higher class had 10.6% visitors of the observed tourist destination. It can be concluded that according to annual revenue middle class of tourists dominates in Croatian tourist destinations. The first five places of foreign emissive markets are taken by Germany (17.5%), Slovenia (12%), Austria (10.5%), Italy (10%), and Czech Republic (8%).

Table 1: Sample's socio-demographic characteristics

Characteristic	**Modality**	**Number of answers (N=1000)**	**%**
Age	Up to 27	331	33.1%
	27-47	375	37.5%
	48-64	234	23.4%
	65 and more	60	6.0%
Gender	Female	331	33.1%
	Male	375	37.5%
Education	Elementary	234	23.4%
	Secondary	60	6.0%
	Two-year college	331	33.1%
	University	375	37.5%
Annual revenue in euros	Up to 12,000	244	24.4%
	13,000 – 24,000	294	29.4%
	25,000 – 50,000	356	35.6%
	50,000 and more	106	10.6%
Country of origin	B&H	20	2%
	Austria	105	10.5%
	Germany	175	17.5%
	Czech Republic	80	8%
	Slovakia	50	5%
	Italy	100	10%
	Slovenia	120	12%
	Croatia	120	12%
	Some other country	230	23%

Source: Results of empirical research

Respondents' structure in a sample with regards to source of information on concrete destination, number of arrivals, way of arrival, means of transport, and alike are shown in Table 2.

Table 2: Sample's characteristics – level of information, travel, and stays in destination

Characteristic	Modality	Number of answers (N=1000)	%
You are in Croatia for the	first time	275	27.5%
	second time	173	17.3%
	third time	100	10.0%
	multiple times	452	45.2%
You came on summer holidays as	a single	48	4.8%
	with a partner	391	39.1%
	a family	294	29.4%
	a group	267	26.7%
How did you arrive on summer holidays?	by plane	242	24.2%
	by bus	227	22.7%
	by train	51	5.1%
	by personal car	419	41.9%
	other	61	6.1%
When did you make the decision about the travel?	a year ago	232	23.2%
	6 months ago	277	27.7%
	2-4 months ago	314	31.4%
	last minute	177	17.7%
Where did you hear about this tourist destination?	Agency	256	25.6%
	TV	41	4.1%
	Internet	195	19.5%
	Newspapers	40	4.0%
	Friends	247	24.7%
	Were here before	221	22.1%
You are in this tourist destination for	holiday	375	37.5%
	entertainment	239	23.9%
	price	60	6.0%
	closeness	30	3.0%
	nature	273	27.3%
	gastronomy	23	2.3%

Source: Results of empirical research

45.2% of total number of respondents stayed twice or more times in some of Croatian tourist destinations. Similarly, significant number of the respondents i.e. 27.5% is in Croatia for the first time. The highest percentage of respondents i.e. 39.1% comes to Croatian tourist destination with a partner, and singles represent the lowest number (4.8%). Significant amount of 29.4% of respondents comes with a family, while 27.7% stay in these tourist destinations within a tourist group. Most of the tourists come to Croatian tourist destinations by personal car (42%), by plane (24.2%), and by bus (22.7%).

Analysing time necessary for decision-making about the travel it is noticeable that the respondents make the most decisions on travelling 2-4 months before travelling (31.4%). The next group are respondents who make their decision 6 months before their travel (27.7%), and the lowest number of the respondents (17.7%) makes their decision in the last minute. Agencies (25.6%) and friends' recommendations (24.7%) are the best source of information about tourist destination if the observed respondents are taken into the account. However, neither Internet with 19.5% can be negligible source of information for observed destinations. The main motives to come to Croatian

tourist destination are holiday 37.5%, and nature 27.3%, while entertainment is leading motive for 23.9% of respondents.

2.1. Basic factors of tourist destination image

Numerous theoreticians who have been dealing with problems of tourist destination image research have probably influenced numerous attempts to define properly i.e. to group basic factors that influence tourist destination image. Among other factors of tourist destination image it is possible to analyse through prism of influences of different internal and external circumstances. For the purpose of this paper we stress the most significant factors, i.e. those that are according to the results of previous researches both domestic and international ones, which were determined by tourists as the key ones. They are as follows: tradition and security, accessibility and ambience, service quality, employees, general impression, satisfaction, and loyalty.

2.2. Questionnaire consistency testing

Reliability of the questionnaire and its parts was tested calculating Cronbach Alpha coefficients. Lately, Cronbach Alpha coefficient is one of the most commonly used coefficients to determine reliability of research instruments (questionnaires). Cronbach Alpha coefficient presents the measure of internal consistency of a set of claims and can have values between 0 and 1. The closer Cronbach Alpha coefficient is to value 1 the more reliable research instrument is. Regarding reliability criteria of research instruments Kline (Kline, 1998) [209] states that if reliability coefficient (also including Cronbach Alpha coefficient) takes value of about 0.9, reliability can be considered as an excellent one. If reliability takes value of about 0.8 it can be considered as a very good one, and if it takes value of about 0.7 it can be then considered as an acceptable one. In cases where reliability coefficient is lower than 0.5 then it indicates that more than half of observed variance could be a consequence of an accidental error, and research instruments that have such low reliability coefficient cannot be considered as reliable and should not be applied in further analysis. Coefficient of internal consistency of the questionnaire as a research instrument is based on Cronbach's reliability coefficient. Coefficient is calculated using the following formula:

$$\alpha = \frac{n}{n-1}\left(1 - \frac{\sum_{i=1}^{n}\sigma_{Yi}^2}{\sigma_X^2}\right)$$

where:

n – number of questions in a questionnaire,

σ_{Yi}^2 - answer variance on the Y_i question, and

σ_X^2 - variance of a sum of answers on all questions in a questionnaire.

Table 3: Level of questionnaire reliability (Cronbach Alpha coefficient), average values and standard deviation for whole sample

Part of questionnaire	Code	N	M	SD	Cronbach Alpha
Image TD	ITD	33	128.49	18.841	**0.96**

Source: Results of empirical research

[209] Kline, R.B.(1998), *Principles and Practic of Structural Equation Modeling*, The guiford Press, New York.

Based on Cronbach Alpha coefficients shown in Table 3 it can be concluded that applied research instruments possess excellent reliability level i.e. instrument for respondents' viewpoints and opinions are confirmed as reliable ones.

2.3. Cluster analysis

Clustering algorithms enable linking of objects in clusters so that distance between them is as bigger as possible, and inside clusters as smaller as possible. There are more clustering algorithms and for the set aim of this research k-means algorithm will be applied. That algorithm has been chosen because of its flexibility in proposing number of desirable groups (clusters). Namely, unlike some other approaches to cluster analysis, k-means approach implies proposing number of maximally different groups (k) that are wished to be achieved by analysis and before the analysis itself.

Clustering is a procedure of division of some data set on afore given number of clusters so that similarity between cluster elements is the highest and difference (distance) between clusters themselves is also the highest.

For example, at the beginning agglomerative hierarchial clustering joins one cluster to every object. In the following step it collects the closest pair of clusters (those that are the least distant) into a new cluster. The procedure of collecting is continued until there is only one (or k) cluster left.(Markic, 2011)

Divisive procedure starts with a cluster that contains all objects. In the following steps cluster is divided until each cluster becomes only one object.

Algorithm of k-means clustering is consisted of the following steps:

1. Randomly choose k-clusters
2. Determine centroids for every cluster
3. Repeat
4. Determine distance between objects from cluster centroids and join object to the closest cluster
5. Recalculate cluster centroids
6. Repeat until all objects transit from one to another cluster (condition to finish algorithm)

K-means algorithm forms given number of clusters that are maximally different between each other, while elements of certain clusters are very similar. Therefore, certain elements are joined to certain groups to achieve heterogeneity between the groups and homogeneity within each individual group.
Distance between objects, between objects and centroids of clusters are expressed by Euklid distance in k-means algorithm. As an example distance D(I,K) of an object *i* from the cluster centroid *k* for M number of analysed variables *Xj* is calculated using the following formula:

$$D(i,k) = \sqrt{\frac{1}{M}\sum_{j=1}^{M}\left(X_{ij} - \overline{X}_j^{(k)}\right)^2}$$

where $\overline{X}_j^{(k)}$ is an average value of *j* variable for *k* cluster.

It can be seen from the above formula that the distances between certain objects and between objects and cluster centroids are expressed in measurement units of analysed variables.

As it was afore-mentioned, k-means algorithm that calculates centroids will be used for clustering. Respondents that are according to certain characteristics the least distant belong to the same cluster.

2.3.1. Cluster analysis results

Cluster analysis was conducted over the variables from ITD1 to ITD33 from tourist destination image scale (ITD). Table 4 presents image dimensions with belonging claims that are analysed in this scale.

Table 4: Factors of tourist destination image (ITD)

1. This tourist destination is a one with a long tradition.
2. Tourists feel safe in this tourist destination.
3. This tourist destination is easily available.
4. There is cordial and friendly atmosphere in this tourist destination.
5. This tourist destination provides quality service.
6. This tourist destination offers its services at affordable prices.
7. This tourist destination is flexible and accepts changes easily.
8. This tourist destination is open to public.
9. This tourist destination has contemporarily educated personnel.
10. Employees in this tourist destination look decent.
11. Employees in this tourist destination are always kind.
12. Employees in this tourist destination are communicative.
13. Employees in this tourist destination are civilised.
14. Employees in this tourist destination are always ready to help the tourists.
15. Employees in this tourist destination possess necessary knowledge and skills in service delivery.
16. Employees in this tourist destination understand tourists' personal needs.
17. Employees in this tourist destination are professional in performing their jobs.
18. Employees in this tourist destination are fast in service delivery.
19. Employees in this tourist destination are always ready to solve tourists' requirements.
20. This tourist destination evokes positive associations in me.
21. I consider this tourist destination as very good one.
22. This tourist destination is bad.
23. This tourist destination has a good reputation.
24. I have a positive viewpoint of this tourist destination.
25. This tourist destination has a good identity.
26. I am of the opinion that this tourist destination is better than competitive destinations.
27. I consider that this tourist destination is promising one.
28. If somebody asked me I would undoubtedly recommend this tourist destination to him/her.
29. This tourist destination has a good image.
30. Image of this tourist destination is better than competitive destinations' image.
31. Image of this tourist destination can additionally be improved.
32. Altogether I am satisfied with this tourist destination.
33. I think I will visit this tourist destination again.

Cluster analysis enables identification of the market segments for tourist destinations. Therefore, the questions based on which tourists' viewpoints on a destination will be selected in the process of data pre-processing for its application. Those are the questions that relate to tourist destination image (questions/claims: ITD1; ITD2; ITD3; ITD5; ITD6; ITD9 to ITD19; ITD29; ITD32). Since

the questions from 9 to 19 for tourist destination image variable (in relation or data frame data frame podaci[] questions 28 to 38) are very similar it is enough to calculate average values of answers. Average values of respondents' answers on the questions from 28 to 36 (in dataset data []) will be calculated applying the following series of orders in

R language[210]:

```
>data_sv=c(rep(0,1000))
  for(i in 1:1000){
  for(k in 28:38)
  data_sv[i]= data_sv[i]+podaci[i,k]
  data_sv[i]= data_sv [i]/11}
```

Data will be stored in a special relation (data frame) in order to determine cluster, and its name will be podaci_Clusters[]. It is enough to request *data.frame()* function in R language:

```
>podaci_Clusters=data.frame(podaci[,20], podaci[,21], podaci[,22], podaci[,24], podaci[,25],data_sv, podaci[,48], podaci[,51] )
```

Then the first 10 rows of relation podaci_Clusters[] appears:

- podaci_Clusters[1:10,]

Table 5: First ten rows of data frame podaci_Clusters

	podaci20	podaci21	podaci22	podaci24	podaci25	data_sv	podaci48	podaci51
1	4	4	3	3	3	3.545455	3	4
2	5	4	5	4	3	4.000000	4	4
3	4	5	4	4	3	3.363636	3	4
4	5	5	5	5	5	5.000000	3	4
5	5	5	5	5	5	4.454545	4	5
6	4	5	5	4	3	3.909091	2	4
7	2	4	4	4	3	3.727273	4	5
8	2	4	4	2	4	3.454545	3	4
9	3	4	3	3	3	4.181818	4	4
10	3	5	3	4	4	4.363636	2	3

Source: Results of empirical research

The next step in identification of market clusters for tourist destination is to apply k-means algorithm. It is enough to request *kmeans()* function in R language and determine its two parameters. The first parameter is a source of data or clustering data. Those data are podaci_Clusters relation, and their first rows are shown in Table 5. The second parameter of *kmeans()* function is cluster number.

In our model cluster number is five.[211] Then the following function is requested:

```
 > kc = kmeans(podaci_Clusters,5)
```

Clustering result is stored in kc[] relation of the following contents:

```
> kc
```

K-means clustering with 5 clusters of sizes 228, 234, 169, 266, 103

[210] Vector data_sv[i] keeps average value of the answers.

[211] We have chosen five clusters since the respondents' answers on claims in the questionnaire are ordinal data and are coded according to Likert scale from 1 to 5.

Cluster means:

	pod..20.	pod..21.	pod..22.	pod..24.	pod..25.	data_sv	pod..48.	pod...51.
Cluster **1**	4.780702	4.890351	4.741228	4.701754	4.697368	4.608852	4.557018	4.763158
Cluster **2**	3.286325	3.688034	3.217949	3.081197	3.760684	3.513598	3.320513	3.739316
Cluster **3**	4.644970	4.461538	4.242604	3.745562	2.982249	3.825175	4.171598	4.254438
Cluster **4**	3.278195	4.394737	4.026316	4.116541	4.206767	4.234108	4.229323	4.334586
Cluster **5**	2.708738	3.135922	3.271845	2.398058	2.475728	2.934687	2.961165	2.941748

Column relations kc[] are the questions from the questionnaire based on which respondents' answers are clustered. The values in columns are cluster centroids. So the first cluster centroid is series of ordinal values presented in the following numbers (vector): (4.780702; 4.890351; 4.741228; 4.701754; 4.697368; 4.608852; 4.557018; 4.763158).
Those values are the first cluster's centroids. Analogously, the centroids of the other four clusters can be extracted.
Based on tourist destination image factors five segments of tourist service users were extracted using cluster analysis. Those segments are the following: conservatives (cluster 1), mass tourists (cluster 2), explorers (cluster 3), hedonists (cluster 4), and traditionalists (cluster 5).

The first segment is called *"Conservatives"* and it comprises of 228 respondents (22.8%). While selecting a tourist destination this market segment prefers safety of staying in a destination in sense of ambience, infrastructure, and receptive tourist capacities. Tradition and traditional values of domicile population and a tourist destination as well are also highly ranked in process of tourist destination selection. Tourist destination image is not of a great importance for this market segment.

The second segment is called *"Mass tourists"* and it comprises of 234 respondents (23.4%). While selecting a tourist destination this market segment prefers a price as absolute primary factor and safety of staying in a destination in a sense of ambience, infrastructure, and receptive tourist capacities.

The third segment is called *"Explorers"* and comprises of 169 respondents (16.9%). In process of tourist destination selection this market segment prefers tradition and traditional values of domicile population and a tourist destination itself, as well as exploring activities in sense of natural and cultural heritage of a tourist destination and the way domicile population life and work. Safety of staying in a destination in a sense of ambience, infrastructure and receptive tourist capacities is also preferred by this segment of the tourists.
The fourth segment is called *"Hedonists"* and it comprises of 266 respondents (26.6%). In process of tourist destination selection this market segment prefers safety of staying in a destination in a sense of ambience, infrastructure, and receptive tourist capacities and satisfaction in sense of enjoying natural ambience of a destination (sun, see, beaches, and landscape) and its gastronomic offer.

The fifth segment is called *"Traditionalists"* and it comprises of 103 respondents (10.3%). In process of tourist destination selection this market segment prefers easy accessibility of a tourist destination in a sense of traffic accessibility (highway, good quality of regional and local roads, airports and easily accessible ports and marinas) as well as other different and easily accessible information, trade, entertainment, and health centres within the destination itself. Safety of stay in a destination in sense of ambience, infrastructure and receptive tourist capacities are high on the list of priorities of this market segment.

Conclusion

Literature review made for the purpose of this paper as well as the results of conducted research lead to a conclusion that tourists make decisions on tourist destination selection based on different image factors. Therefore, from practical aspect the results of this research can help decision makers within tourist destination management, while identifying key image factors that also determine decision on destination selection for different market segments. Such information can help financial institutions' management when planning, creating, and implementing appropriate marketing strategies to reach, attract, and retain target market segments.

The research results confirm the set hypothesis – In process of tourist destination selection main tourists' preferences are, with regards to image factors, sufficiently different to serve differentiation of significant market segments of the tourists. Since in this research five different segments that characterise different influence of image factors on tourist destination selection were extracted, it is evident that tourist destinations have to adapt something to be competitive in servicing all five defined and/or selected segments when planning and conducting business strategy. Starting from research results, it can be suggested to tourist destinations to pay significant attention exactly - to apostrophised factors when creating their marketing but also communication strategies directed towards selected market segments.

References

1. Crompton, J. (1979.) *An assessment of the image of Mexico as a vacation destination and influence of geographical location upon the image*, Journal of Travel Research, 4: pp.19.

2. Gallarza M.G. Saura I.G., Garcia H.C. (2002.) *Destination image: Towards a conceptual frame work*, Annals of Tourism Research, 1: pp 59.

3. Kline, R.B. (1998) *Principles and Practice of Structural Equation Modelling*, The Guiford Press, New York.

4. Križman Pavlović, D. (2008.) Marketing turističke destinacije, Mikrorad, Zagreb, 91.

5. Lopesi, S.D.F. (2011) *PASOS. Revista de Turismo y Patrimonio Cultural.* ISSN 1695-7121 Vol. 9 Nº 2 págs. 305-315. pp312

6. Markić, B., (2011) *Neuronska mrežna klasifikacija u menadžerskom računovodstvu*, Informatologia, Vol. 44, No.4.

7. Vranić, I, Cicvarić Kostić, S., Bakić,V.,T., Vojvodina as a tourism destination citiyens perspective, Symorg 2014, pp. 1115

8. Vukonić B., Čavlek N, (2001.) Rječnik turizma,. Masmedia, Zagreb, pp.130.

EDUCATING FOR ENTREPRENEURIAL DESIGN INTERVENTIONS IN THE LEISURE AND TOURISM INDUSTRY – THE CASE OF NORTH-WEST BULGARIA

Liliya Terzieva, PhD[212]

Abstract

Leisure and tourism as fields of study can be approached from many different angles. As a general definition – tourism and leisure are valued for their potential contribution to the individual well-being and the ability to contribute to the growth of thriving communities. Leisure and tourism involve freedom, self-discovery and growth. It is difficult to identify these domains of study in society one-sidedly. At the conceptual level leisure and tourism have been developed as an integrating perspective to understand current developments in society.

Even though tourist numbers are rising, traditional organizations have been struggling with keeping up with Internet-based competitors and recently established start-ups such as Airbnb'. More and more leisure and tourism organizations are therefore trying to introduce new entrepreneurial design concepts to drive innovation and sustainability. This strategic direction raises various questions and a demand for research.

The current paper has the objective to study the complexity of the tourism and leisure industry today in terms of identifying the meaning of entrepreneurial design interventions and the necessity of educating the industry for them in order to achieve sustainability and success in a strategically wanted direction. The study shall be based on leisure and tourism industry cases in North-West Bulgaria.

The theoretical framework to be used is the one of the complex adaptive systems together with the Imagineering design approach. The methodology to be used is interviewing on the basis of appreciate inquiry, participant observation, creative sessions, thematic and narrative analyses.

Keywords: *Entrepreneurial design interventions, leisure, tourism, complexity, education*

Paper Content

[212] NHTV University of Applied Sciences, Breda, The Netherlands; 17, Archimedestraat; Breda; NL; terzieva.l@nhtv.nl

Introduction

Within recent years, organizations have faced a continuous demand for novel ideas, products, services and businesses. The demand for entrepreneurial creativity of a different type has proven to be a key tool, used by organizations and social communities facing a transition, where traditional approaches no longer seem to have the same beneficial effects as they did in the 20th century. Today, in times being referred to as a connected society, technology and globalization highlight the challenge, but also the importance of a searching for new realms based on active networking and participation. This is where also researchers still identify a gap in terms of studies and cases explored.

Lankford et al (2011) state that many challenges will come along with the arrival of 21st century in the leisure and tourism service sector. The demand on outdoor recreation areas of every kind has been increasing faster than the supply of lands and facilities could accommodate. The condition where budget is inadequate and the land acquisition could not feasibly support the demand or perceived needs of the society, makes the challenges look more complex to be handled. The challenges then may cause deterioration in tourism and leisure industries where the demand from societies in using the services cannot be fulfilled. Thus tourism and leisure industries face the need and the challenge “to be educated” to design strategic entrepreneurial transformations both inside and outside the organization in order to be able to deliver their value to the society and survive in this complex demanding leisure and tourism environment, which is exactly to be seen in the current paper’s observations and findings.

As suggested by Malone et al (2003), the organization in 21st century has to decentralize, externalize and create networks of industry ecosystems to replace top-down organization. The current paper looks exactly at this new paradigm of organizational structures, which might be able to bring positive transformation for the organization in the way of looking from different perspectives and be open for any creative ideas from any member within the organization.

Moreover companies have been highly challenged with keeping up with individuals embracing the networked society and continuous demand for individualized and customized solutions, which requires for new competences to be obtained, namely the ones of entrepreneurial design based on both individual as well as on collective interventions, where current research lacks to provide the necessary in-depth understanding and critical mass of data analyzed.

Therefore this paper aims to enhance the understanding of entrepreneurial design interventions and the necessity of educating the tourism and leisure industry for them in order to achieve sustainability and success in a strategically wanted direction.

Entrepreneurial creativity design within organizations

Already in the last decade of the 20th century research identified that companies, who are famous for continuously introducing innovation but lacking a research and development department, are instead retrieving their ideas and input from their employees by initially introducing an organizational culture embracing and supporting entrepreneurial creativity (Chang at al., 2011). This example relates to the topic of sustainable growth, which can be fostered through the integration of entrepreneurial creativity within an organization by means of facilitating the establishment of a design environment. Therefore organizations with creative and entrepreneurial employees do not only create extra value, they further have the ability to act in a dynamic business environment while keeping a competitive advantage (Wang et al., 2014).

Considering organizations, the question arises how they are able to foster individual and group entrepreneurial creativity within their workforce and what the drives for creativity through design are.

Research has revealed that individual creativity is highly influenced by trust, empowerment to freely express oneself and to make decisions, the freedom to learn in unconventional ways and the connection of work to own make interests (Davis, 2013).

In addition, attributes such as personality, cognitive style, job complexity, affect, culture, supportive climate (Aldebert et al., 2011) support of colleagues and supervisors, evaluation and feedback impact individual creativity (Wang et al., 2014).

Research suggests that self-empowerment and also an entrepreneurial creative role can already foster employees' motivation and drive to come up with novel ideas, contributing to the innovation and the company's growth (Slatten &Mehmetoglu, 2011). Following the idea of empowerment, a general rather low hierarchy within a company also enhances innovation within the workforce (Tajeddini & Trueman, 2012). Furthermore, it has been acknowledged that employees working in complex jobs are more driven to use entrepreneurial creativity, implying that organizational leaders need to also confront employees with rather complex tasks to actually support their potential for designing for creativity (Wang, et al., 2014).

Overall, companies are advised to apply systemic changes to their organizational culture to minimize stress related to job insecurity, trust or role conflict as those may hinder creative contribution and even general entrepreneurial spirit of the employees (Hon et al., 2013, Gilson & Shalley, 2004).

Moreover, this highlights the need to make time for continuous educational activities. As research has stated that employees 'knowledge is indirectly linked to entrepreneurship and strive for design through innovation, meaning that through educating the employees not only their expertise is being enhanced but also their intrinsic motivation is supported, which has been identified as a significant element of steering towards innovative performances (Chang et al., 2011, McMahon & Ford, 2013).

Therefore organizations have to provide their staff with opportunities to further educate (Chang et al., 2011) and enrich their knowledge in various areas of interest and disciplines. Comprehensively it can be stated that organizations need to create an open environment where risk-making and trial and error approaches are encouraged, a clear vision and goals are stated to employees, information and feedback are provided, knowledge is being shared, a diversity of different people with diverse work functions are working collaboratively (Auernhammer & Hall, 2014), new understanding is valued and empathy, trust and fun are consistent elements of the enterprise (Kattara & El-Said, 2013).

Leisure and Tourism organizations today

Emergence within today's economy is an additional development initiated through 'collaboration towards evolution' (Nijs, 2014). It is no longer to be perceived that tourism and leisure can be explored and developed one-sidedly. In the last few decades, tourism and leisure were catching up on increasingly integrating the experience economy model, which has further on been identified as one of the major carriers of economic growth regarding entrepreneurial creativity (Richards, 2011; Richards & Wilson, 2006), also highlighting its potential.

However, as previously discussed, entrepreneurial creativity has strong ties, relating to innovation. But when it comes to leisure and tourism, most research focuses on innovation – leaving out the terms entrepreneurial initiative, creativity and especially design. The vast innovations through Information and Communication Technology (ICT) have been one of the top-ranked topics in the leisure and tourism industries (Weidenfield, 2013; Albert et al., 2011); Tlgu et al., 2013). This is even further driven by the on-going demand of efficiency by tourism and leisure organizations, reasoning the use of only technology for systematization, instead of applying it as an asset for customization (Sørensen & Jensen, 2015).

Regarding the leisure and tourism industries, every employee (from the front-line to the back-office one; from the one at managerial to the one at operational level) plays a decisive role within the provision of a service expected to become an experience. Today's experiences have made their entrance into the tourism and leisure sectors (Richards, 2011; Tan et al., 2013), clearly changing the way of managing and designing tourism and leisure for consumers, re-framing the customer interaction into participant collaboration. This further highlights the relevance of all employees not only as providing an experience, but also as a source of entrepreneurial creativity and knowledge when it comes to consumers and the design intervention necessary to be introduced (Sørensen & Jensen, 2015). Therefore in tourism and leisure, an organization cannot only rely on centralized innovation done by the marketing or R&D departments, but rather depends on the decentralized innovation based on the entrepreneurial creativity design of all its employees (Nijs, 2014).

Furthermore the above highlights the need of an entrepreneurially-oriented workforce within the tourism and leisure sector to be able to guarantee customer satisfaction and exceed expectations (Wang et al., 2014). Tourism and leisure have been further influenced by the 'creative turn', visible in increasing creative content and design in tourism and leisure products (Richards, 2011). However, it seems that this is rather focusing on transferring the responsibility only towards leaders rather than shifting to "active participation", authentic experiences, creative potential development and sense of initiative in practice (Nijs, 2014).

Even though this has been acknowledged as a more sustainable approach and often supported by policy makers, aiming to attract creative stakeholders (Richards, 2011; Rodriguez et al., 2014), it solely focuses on the end product and is often limited in a creative exchange (Tan, et al., 2013)

Within the entrepreneurial creativity range in relation to tourism and leisure, certain elements of the experience need to be designed for by the consumers (participants) themselves (Nijs, 2014), however in what research has so far explored, there are close to no examples, which have been identified of companies in tourism and leisure applying entrepreneurial creativity in the first place of designing experiences in a co-creative collective mode with the consumers (Terzieva & Dewabrata, 2013).

Therefore it can be stated that the potential that lies in entrepreneurial creative design interventions in the tourism and leisure sector has not yet been fully recognized by organizations (Nijs, 2014) so that educational activities in this direction are of significant importance.

The case of North-West Bulgaria

The North-West planning region in Bulgaria includes the districts of Vidin, Montana, Vratsa, Pleven and Lovech. This is the weakest region in terms of economic strength, contributing about 6.2% (2014) to the country`s GDP. The main industries are within the energy and chemical sectors. The leader in the energy sector is the nuclear power plant "Kozlodui", generating 43% of the total electricity in the country.

Although its recovery, to the help of the European funds, is among the state's priorities, the unemployment, poverty and the lack of any perspective caused a mass depopulation of this region.

Despite the above, the North-West planning region is one of the most famous regions of Bulgaria in relation to natural phenomena, taking into account the Belogradchik rocks and the Ledenika and Magura caves. Everyone who travels across these lands becomes amazed by the original culture of the local population as well as by the beautiful sights, the old churches and monasteries, nestled at the foot of the Balkan Mountain Range. The healthy mineral springs in the region also contribute to the unique features of the North-West, where also various artificial lakes and the Danube river are of significant importance for both the tourism as well as the leisure sector development. The above, however, is not yet generating the value expected neither in financial, nor in social return. A series of international, national and regional policies, programmes and projects in the field of leisure and tourism have been implemented in the North-West region for the last 25 years, where infrastructure as well as human resource capacity have been the key.

What, though, is the opinion shared by the key stakeholders in the region is that the sustainability of the outcomes is still to be seen since most of the interventions have been realized without taking into consideration the complex nature of both the region itself as well as the developments expected to happen. Only recently, within the framework of the last five years, there are to be seen entrepreneurial initiatives, which impact is continuously growing in size since it looks at the tourism and leisure development from a new, complementary management perspective, namely the Complexity one, asking for co-evolution of the entire system. Here comes the question: how do you educate a region towards co-designing the future together?

Research methodology and design

This paper retrieves its insights from an on-going study, focusing on discovering how to educate for entrepreneurial design interventions in the fields of tourism and leisure at the case of North-West Bulgaria. The epistemological view of the Complexity Theory has been applied, implying an innovative approach to research

The methodology entails the complexity paradigm, unfolding the complexity and integrity of trends within the sectors analyzed. According to Eve Mitleton-Kelly (2003), one of the most eminent complexity researchers, 'we live in a world of non-linear dynamic systems, which are able to transform themselves into emerging new states of being, rather than a world where systems run down subject to ongoing deterioration'. As also Nijs states (2014): 'In world 2.0, society has been seen as an open system where resources are exchanged with the environment. Self-organizing systems became the basic structures of all living systems'

Complexity science introduces a new understanding, able to perceive non-linear dynamic systems thereby enabling to relate to a world in a more dynamic way (Nijs, 2014). One of the basic principles of the complexity science is 'order through fluctuation'. Within this principle, one needs to recognize dissipative structure or self-organizing systems. Both being basic elements of living systems, which are able to self-organize through new entering elements and leaving ones, forming order instead of deteriorating. Another basic principle is represented through open systems, meaning that a system requires external sources, to be alive and working, therefore creating stability through a 'nourishing disequilibrium' (Nijs, 2014). This highlights that open systems cannot be understood without reflecting on the context or setting they are acting in, representing a crucial element for the epistemological, methodological and theoretical approach. Moreover complexity theory links to the theory of evolution, where interactions of systems lead to meta-systems and all steps can be understood as on-going evolution (Nijs, 2014).

Within this paradigm, the research explores the context related truth, instead of taken a universal approach. Choosing this approach is highly relevant, as especially tourism and leisure services are co-created through their participants, as well as through internal and external factors. The chosen paradigm opens up the opportunity to develop recommendations and advices embracing flexibility and adaptability. Due to this approach, the primary focus is set on qualitative data and therefore laid on rich information. Furthermore, the researcher interacts closely with the participants to develop and co-create ideas. Qualitative data has been gathered through desk and field research. Desk research involved the academic focus on gaining insights into the theoretical background. The field research encompassed open and semi-structured interviews, as well as observations. The undertaken interviews were all held in an appreciative interviewing format, to emphasize on a "cooperative, co-evolutionary search for the best in people, their organizations and the world around them" (p.8) (Cooperrider & Whitney, 2005). The sample of participant's concentrates around a group of tour operators, hotel owners, tourism and leisure animation providers, tourism and leisure non-governmental organizations, educational institutions, funding organizations and external experts (Table 1).

Table 1. Respondents' Characteristics

	Age	**Working area**	**Gender**	**Organizational function**	**Code**
1	25	Tour operating	Female	Assistant Manager	T1
2	27	NGO	Male	Account Manager	N1
3	26	Leisure and Tourism Animation	Female	Animator and Trainer of newly employed animtors	LTA1
4	25	NGO	Male	Chairman	N2
5	25	Education	Female	Lecturer in Tourism and Leisure	E1
6	46	Hotel	Female	Hotel owner	H1
7	50	Hotel	Male	Head of Marketing and Sales	H2
8	52	Tour operating	Male	Head Incoming tourists	T2
9	44	Funding and Subsidies	Female	Account Manager	FS1
10	55	Funding and Subsidies	Male	Financial advisor	FS2
11	39	Tourism and Leisure Expertise	Male	Independent entrepreneur	TL1
12	48	Tourism and Leisure Expertise	Female	Independent Entrepreneur	TL2
13	51	NGO	Female	IT expert	N3
14	53	Hotel	Female	Reservation officer	H3
15	54	Tour operating	Male	Manager emergency services, environmental coordinator and licensing manager	T2
16	37	Education	Male	Lecturer	E2
17	42	Education	Male	Head of Educational department	E3
18	28	Tour operating	Male	Reservation officer	T3
19	23	Leisure and Tourism animation	Female	Animator	LTA2
20	51	Hotel	Female	Hotel owner	H4
21	48	Hotel	Female	Hotel manager	H5
22	39	Tourism and Leisure Expertise	Male	Independent entrepreneur	TL3

23	25	NGO	Female	Chairman	N4
24	56	Funding and Subsidies	Male	Subsidy advisor	FS3
25	45	Tour operating	Female	Outgoing tourists	T4

The item list encompasses topics such as: collaboration and networking; attitude to change; creativity and entrepreneurship; readiness for learning; co-creating a common future.

For analyzing the collected data, thematic analysis (Table 2) has been applied, aiming at the discovery of emerging and significant themes, related to the research question (Braun & Clarke, 2006, Fereday & Muir-Cochrane, 2008) together with the conduction of a creative session based on the World café methodology, where all participants have been invited.

Table 2. Phases of Thematic Analysis (Braun & Clarke, 2006, p. 35).

Phase	**Description of the Phase**
1. Familiarising yourself with data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes	Ongoing analysis to refine the specific of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extract relating back of the analysis to the research question and literature, producing a scholarly report of the themes.

As an additional method of the research design, a narrative approach was applied: to use a narrative perspective while analyzing data facilitates the process of collecting personal stories, meanings, values and deep insights. Especially in leisure and tourism, where people represent the core focus, personal views and opinions, as well as non-factual language, are insightful, demonstrating the relevance of this method.

Findings and Discussion

The outcome of the research is about the possibility of creating an educational culture towards entrepreneurial design interventions, meaning the openness and readiness towards new interpretations, novel ideas, introduction of new stakeholders, intense collaboration. This means the artefact that this research aims to develop needs to inspire all parties. Potential themes that came out of the data analysis of the semi-structured interviews and the thematic analysis conducted were:

- Sustaining a dialogue for co-creation
- Creativity
- Entrepreneurial networking

- Sustainability through education

Based on this information a format for a creative session was chosen by the researcher. The chosen format for the creative session – the World Café enabled the confirmation of the themes by the participants together with their re-combination. During the creative session it became clear that “sustaining a dialogue for co-creation” and “sustainability through education” could both be taken as the overarching themes.

The first theme is "Sustaining a dialogue for co-creation". The research showed that all participants confirmed the need of a dialogue, however of a constructive one, leading to both novelty in the process as well as novelty in the outcomes.

Several interviewees (N1; T2; E1;H3; FS1) mentioned that they felt like they were not included in the development of the tourism and leisure sectors as a whole but more approached for only tangible factors, meaning the profitability the region had to prove in front of the public authorities. Thinking about possibilities of working together, one of the interviewees (H2) stated this very clearly by saying : "Oh yes, I know that there are policies for innovation in tourism and leisure but I still do not see neither myself, nor my company as an active part within this process?" Even though this is the owner of one of the biggest hotels in the region, the interviewee did not feel included in the new processes. Another interviewee (a chairman of a non-governmental organization – N2) also mentioned: "I never really talk to the tour operators or the tourism animation providers at meetings that the provincial authorities are holding, not that I don't want to but I always just get a 'good morning' if I'm lucky." A representative of one of the educational institutions (E1) said she already was thinking about changes that could be introduced if the people we more open to listening to each other’s’ ideas: "I would love to get an invitation to reflect on possibilities between my organization and the development of leisure and tourism. I already have some concreate ideas how to make this synergy work". A few more interviewees made this conclusion (FS2; N3; H3; LTA1; TL1; TL2).

A large number of interviewees (N2; E1; H1; H2; T2; FS1; FS2; TL1) mentioned that they needed a facilitator for a dialogue and a person/people, who could be busy with the follow-up. A respondent (T2) mentioned this when talking about projects that could be initiated together with all stakeholders. "I have a lot of ideas. Not just for me but also for others, especially when it comes to new knowledge and competences in the tourism and leisure fields. There is not really a place to talk about this. Lots of times the meetings we have are really meeting with detailed agenda's but no concrete steps". Another interviewee (H3) took this further by saying: "The tourism and leisure sectors could function as incubators of entrepreneurial ideas, as hubs where people are brought to co-create together".

One interviewee (FS2) noticed that some people already tried to create a dialogue but with not so clear result. Just like one of the respondents (H3) explains: "I was happy that I was invited to talk about it, but got a little bit disappointed when they started talking about the ideas they had without even asking about mine".

The data analysis shows the necessity of facilitating a dialogue based not on one-direction messages conveyed but on co-creation, even when the outcome is not expected but recognized by all as the most relevant one for the situation. Connected and external stakeholders feel like they are not included in any development but feel that they can contribute. Even work together and innovate together. All parties have the opportunity to state their views or feelings forward. A dialogue is to co-create the common meaning.

The second theme is Sustainability through education: the readiness of all stakeholders, no matter how business, entrepreneurial, effective and successful they can be at the current moment, to learn and apply new ideas; develop new processes; acknowledge the continuous dynamics, which asks for changes to be introduced with complete awareness.

During the interviews it was brought forward by several interviewees (E3; T3; LTA2; H4; H5; TL3) that the existing key players in the field of leisure and tourism in the North-West of Bulgaria either did not know or were incapable of approaching either educational institutions or other stakeholders together with whom they can learn and design better. One of the respondents (H1) said for example that : "Sometimes I just give up, I don't know where to go anymore. I know the information is there, but how to obtain it?"

This has a relation to the why question. Some interviewees (FS1; FS2; N1; LTA1; E1) expressed why they do not approach education in general anymore. One interviewee (N1) stated that that: "For me, it is not clear anymore what I can expect from learning. It's like the others, whom I am expected to partner with, keep it as a secret what they are innovating and how. Because you know they are innovating, but what?" Another one (T1) takes it further by asking the question: "Why does it have to be so vague? I am aware that there is much going on and instead of trial and error that I am unable alone to reflect upon, to come together and develop a further interpretation that can turn out to be more sustainable?"

Some interviewees (key players and experts in the tourism sector – T1; T3; N2; E3; LTA2; FS1) expressed that they do not even sometimes feel the appreciation by the public authorities they believe they deserve. One of them (H4) said that: "Within our business there are so many rules – new legislation, new orders, etc., however since we have not been part of the developments, some of them are not even customized to the situation we are facing." Another one even shared the following frustration (E2): "We are open to learning together but is the public sector ready to go through such an educational transformation along with us?" Another very interesting point was touched upon by another respondent (N3), who said: "How about a common policy that we design for in terms of social media? Such an easy thing as setting-up a common Facebook page of the North-West Bulgaria – why does it still seem as mission impossible?"

One of the interviewees had a very clear view on the above (FS2): "We have to remove the obstacles and start listening, talking and building upon each other's knowledge and ideas".

During this research it came forward that the level of readiness to share was rather low. In a context where the main objective is still survival because of the severe economic and social conditions, further education and learning seem to be parallel world people do not have the time and the courage to look at. However when individually being approached and later on gathered at the creative session, most of them admitted their willingness and importance of making the decision to try and implement new ways of interacting together with the purpose of learning from each other and building the future together.

Based on the research findings there has been created an artefact, which to ignite and change the dialogue amongst the tourism and leisure stakeholders in the North-West Bulgaria towards more co-creation, learning and developing possibilities for entrepreneurial initiatives to be designed together. The artefact's purpose is to facilitate the people to think in different ways, opening up for entrepreneurial dialogue and co-creative education.

One can say that both the above themes have influence on each other in a way that they relate to each other within an interaction of impact.

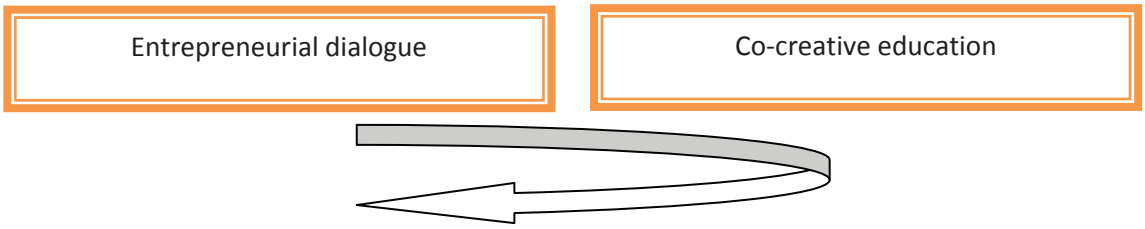


Figure 1 Cycle of Approachability and Creating a dialogue

To inspire the stakeholders to change their behaviour and to enhance them to change their patterns,the artefact needs to feed the cycle in a positive and active way. Therefore the artefact has to also represent the dynamics that both themes have in common, the one asking for continuous development and growth.

The narrative that came out of the creative session together with all representatives is “Reach Out”. The idea is that it relates to a human body movement that in different situations has different meaning and outcomes – reaching out a hand for help; reaching out to find a hand; reaching out where it is not clear what it could be; reaching out to see beyond, reaching out to learn, etc. "Reach out” stands for the dynamics of pure introduction, agreement and opening a dialogue. It inspires eventually all sides to step up to create a dialogue they need and are ready for.

Conclusion

Throughout the paper, various perspectives and insights on educating for entrepreneurial design interventions have been addressed and discussed. Besides highlighting the actual need for entrepreneurial co-creation and dialogue within the struggling tourism and leisure sector in the North-West Bulgaria, the specifics have been defined and analyzed. Educating for entrepreneurial design interventions requires the topic to be holistically approached, with strong related values automatically inspiring people to embrace the idea of innovation throughout their workspace and further. In addition, the factors of co-creation, trust, empowerment and learning are not only stated by the literature, but also confirmed by field research. Besides qualifications, the paper identifies possible struggles the tourism and leisure industries are facing today. In many cases strict regulation and fear of sharing restrict open dialogue and possibilities for learning and therefore do not provide room for flexibility or entrepreneurial design. Overall, the paper identifies that there is a growing awareness and dynamics in transforming the leisure and tourism industries towards open learning and entrepreneurial creativity. With various new concepts and new organizations, the industries are experiencing directly a shift in their field of expertise. Besides new concepts, companies are increasingly opening up to design labs and other pilot project. However, so far an ideal approach towards integrating an entrepreneurial design cannot be determined. Nevertheless, it is highly questionable whether there is one way for all organizations to transform towards the future.

Especially due to the current dynamics within this field of study, future research could observe the upcoming developments, therefore also considering a broader view on how complexity and interconnectivity influence organizations and aspire them to co-design together. It could be further advised to explore in more detail the current developments of leisure and tourism organizations today, experimenting with entrepreneurial design strategies or organizations completely integrating or ignoring them. In addition, future research is needed for discovering more insights related to peer-to-peer dynamics and entrepreneurial creativity within the tourism and leisure industries.

Reference list

1. Aldebert, B., Dang, R.J. & Longhi, C. (2011). Innovation in the tourism industry. The case of Tourism@. *Tourism Management:* 32, pp.1204-1213.
2. Auernhammer, J. & Hall, H. (2014). Organizational culture in knowledge creation, creativity and innovation: Towards the Freiraum model. *Journal of Information Science*: 40, pp. 154-166.
3. Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology:* 3, pp. 77-101.
4. Chang, S., Gong, Y. & Shum, C. (2011). Promoting innovation in hospitality companies through human resource management practices. *International Journal of Hospitality Management:* 30, pp. 812-818.
5. Cooperrider, D. & Whitney, D. D. (2005). *Appreciative inquiry: A positive revolution in change*. San Francisco: Berrett-Koehler Publishers.
6. Davis, J.M., (2013). Supporting creativity, inclusion and collaborative multi-professional learning. *Improving Schools*: 16, pp. 5-20.
7. Fereday, J. & Muir-Cochrane, E. (2008). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International journal of qualitative methods*: 5, pp. 80-92.
8. Gilson, L.L. & Shalley, C.E. (2004). Little Creativity Goes a Long Way: An Examination of Teams' Engagement in Creative Processes. *Journal of Management:* 30, pp. 453-470.
9. Hon, A.H.Y., Chan, W.W..H. & Lu, L. (2013). Overcoming work-related stress and promoting employee creativity in hotel industry: The role of task feedback from Supervisor. *International Journal of Hospitality Management:* 33, pp. 416-424.
10. Kattara, H.S. & El-Said, O.A. (2013). Innovation strategies: The implementation of creativity principles in Egyptian hotels. *Tourism and Hospitality Research*: 13, pp. 140-148.
11. Lankford, S.V., Knowles-Lankford, J. & Wheeler, D.A. (2011). *An Introduction to Park Management.* 3rd Edition. Sagamore Publishing LLC: Urbana.
12. Malone, T. W., Laubacher, R., & Morton, M. (2003). *Inventing the organizations of 21st century*. Cambridge, MA: MIT.
13. Mcmahon, S.R. & Ford, C.M. (2013). Heuristic Transfer in the Relationship between Leadership and Employee Creativity. *Journal of Leadership & Organizational Studies*: 20, pp. 69-83.
14. Mitleton-Kelly, E, (2003). Complex Systems and evolutionary perspectives on organizations: The application of complexity theory to organizations. *London: Emerald Group Publications*, pp. 20-40.
15. Nijs, D. (2014). *Imagineering: the Butterfly Effect*. The Hague: Eleven International Publishing.
16. Normann, R., & Ramirez, R. (1993). Designing Interactive Strategy. Operations Management: https://hbr.org/1993/07/designing-interactive-strategy (accessed: 02.02.2015)
17. Richards, G. & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture? *Tourism Management:* 27, pp. 1209-1223.
18. Rodrigues, I., Williams, A.M. & Hall, C.M. (2014). *Tourism innovation policy: Implementation and outcomes*. Annals of Tourism Research 49, pp. 76-93.

19. Slåtten, T. & Mehmetoglu, M. (2011). What are the Drivers for Innovative Behavior in Frontline Jobs? A Study of the Hospitality Industry in Norway. *Journal of Human Resources in Hospitality & Tourism*: 10, pp. 254-272.
20. Tajeddini, K. & Trueman , M. (2012). Managing Swiss Hospitality: How cultural antecedents of innovation and customer-oriented value systems can influence performance in the hotel industry. *International Journal of Hospitality Management:* 31, pp. 119-1129.
21. Tan, S.K. Kung, S.F. & Luh, D.B. (2013). A model of 'creative experience' in creative tourism. *Annals of Tourism Research*: 41, pp. 153-174.
22. Terzieva, L.V. & Dewabrata, E. (2013). *Complex adaptive system management within multifunctional leisure organizations (the case of park 21, The Netherlands)* ATLAS Annual Conference, 08-11-2013. Leisure and tourism book of abstracts and extended abstracts Malta.
23. Ţigu, G., Iorgulescu, M.-C. & Sidonia RăvaR, A. (2013). The Impact Of Creativity And Innovation In The Hospitality Industry On Customers. *Journal of Tourism Challenges & Trends:* 6, pp. 9-33.
24. Wang, J.-Z. & Jing, W. (2009). Issues, challenges, and trends, that facing hospitality industry. *Management Science and Engineering*: 3, pp. 53-58.
25. Weidenfeld, A. (2013). Tourism and cross-border regional innovation and systems. *Annals of Tourism Research*: 42, pp. 191-213.
26. WTTC (2015). *Travel & Tourism Economic Impact 2015*. http://www.wttc.org/research/economic-research/economic-impact-analysis/ (accessed 31.03.2015)

THE RELATIONSHIP BETWEEN THE ATTRIBUTES OF THE INTERNET AND CONSUMERS' SATISFACTION: A STUDY OF E-COMMERCE IN MACEDONIA

Teuta Veseli, PhD student

Faculty of Business and Economics, South East European University, Tetovo, Republic of Macedonia

t.veseli@seeu.edu.mk

Remzije Rakipi, PhD student

Faculty of Business and Economics, South East European University, Tetovo, Republic of Macedonia

r.rakipii@seeu.edu.mk

Abstract

The purpose of this paper is to elaborate the relationship between internet and consumers satisfaction. The study is based on a questionnaire on e-commerce in Macedonia, mainly considering how it works, and which are the factors that most affect customer satisfaction in using electronic commerce. Studies have shown that online consumer behavior changes (in some important respects) the behavior of the traditional market customers. In Macedonia, e-commerce is still in the initial stages, it shows as opportunities for improvements as well as potentials problems. How is the development of e-commerce in Macedonia, how it works, what are the factors influencing its development and not customer satisfaction will answer results from analysis and research. Starting the fact that internet use in Macedonia is satisfaction level, we need to focus and track the reasons why e-commerce is stagnating.

***Keywords**: Electronic commerce (e- commerce), consumer satisfaction, Internet, Macedonia, factor, consumer behavior.*

1.Introducion

Online services have become an important part of everyday life[213], bat the most important is the consumer satisfaction from those services. There is wide literature that has investigated the issue of e-commerce and customer satisfaction (Zhao, 2005). The purpose of this paper is to give details of the findings of research on what affects customer satisfaction by using electronic commerce (e-commerce). By doing so we will fill the gap in literature of investigation the issue of e-commerce and customer satisfaction in Macedonia. This will be achieved through analysis of factors affecting consumers' satisfaction.

Customer satisfaction on internet refers to the customer satisfaction on the electronic market and is defined as a long-term development influenced by consumer expectations and changes on the perceptions of quality over time, based on the new experience and knowledge of customers.

Customers receive personal vouchers on many supermarkets based on their purchase. Many newspapers help readers to create their own online personal variants which allow the clients publicity; and consumers can buy more personal versions of many products. For example, the firm's Web site at Nike buyers can choose between several models of athletes according to different price, the customer can choose the athlete using different colors, characteristics or features.

For the purpose of this paper we have conducted a survey that will serve for analyzing data and giving the conclusions of the study. The survey consists of a representative sample on age and gender of 1600 randomly selected respondents for the period from October to December 2014.

Knowledge and the results of this study will be implemented in practice through the development of electronic services profile (most important) from the consumer's perspective. Satisfaction is an outcome of purchase and use result in from the buyer’s comparison of the rewards and costs of the purchase in relation to the anticipated consequences[214]. Consumers engage in a constant process of evaluation of the things they buy, as long as they integrate these products into their daily activities consumption.

The structure of the paper is as follows. First we provide some literature review. Then we continue with investigation of the data regarding how customers stay connected with electronic commerce in Macedonia. The third section provides analysis of the survey data. At the end of the paper we give some recommendations, what steps should be taken to electronic commerce, and businesses would rather use it to come close to the global trends that are developing in this regard to the speed of sunlight.

2.literature review

Although surprised by these new technologies, we need to put them in proper perspective. Let's go back a little back in time. In fact, in essence, they are a continuation: of that trader of a local unit of the shoe trade, who recognizes customers by name, knows their preferences, or of a unit sales of dairy to a neighborhood, who remembers daily routine purchases of each client and puts the items in the account before the client asks for them, or a small jewel trader who takes notes for special cases of his clients and prepares a suitable choice for gifts so that customers can buy on anniversaries or birthday cases. All they have realized the marketing one-to one before this term was used and many decades before personalized digital communication become possible. The

[213] S. Raspor Janković, M. Gligora Marković, A. Brnad: Relationship between attribute and overall... Zbornik Veleučilišta u Rijeci, Vol. 2 (2014), No. 1, pp. 1

[214]http://www.academia.edu/1977823/CUSTOMER_SATISFACTION_A_CENTRAL_PHENOMENON_IN_MARKETING

objectives of a shoe seller, dairy and jeweler were similar to those of large companies today: to reach customers, to keep good customers, to sell goods to them and to realize their profits.[215]

Today, the digital revolution of the market creates many more opportunities of selection of products, services and promotional messages than traditional marketing tools. In doing so, it enables traders to build and maintain relationships with customers as the seller and jewelry mentioned above have done for many decades, but on a much larger and efficient scale. Digital technology also enables merchants to collect and analyze increasingly complex data on customers by building models, according to personal characteristics. On the other hand, the same technology enables clients to find more information about products and services, including prices more easily and efficiently.[216]To understand the pleasure in the context of electronic commerce, we must have a clear understanding of what we mean by consumer satisfaction.

Most authors agree with the view that satisfaction is an attitude or evaluation that is formed by the customer by comparing their expectations before the acquisition of which will receive the product from their subjective perceptions of performance that they actually received. [217]Pleasure is the feeling of a person, pleasure or disappointment resulting from comparing the performance perception of a product in relation to their expectations. [218]If performance falls below what is expected the consumer remains dissatisfied and if it is the opposite then it remains very pleased. And if this performance not only satisfies, but exceed customer expectations then he is more than pleased, delighted. [219]

3.An Empirical Investigation

The empirical part of this paper is divided into two parts. The first part will examine the data taken from the site of the State Statistical Office,[220]where the data will be presented with graphs and tables which will be reflected in a clear way and make a comparison of the same from 2008 until 2013. The tables and commentary to the same is related to the use of information technologies in the Republic of Macedonia and the use of electronic commerce by business entities and individuals for personal purposes.

In the second part of the empirical research we will approach closer to the customers, using survey data, the answers of which will better reflect the reality of electronic commerce in the country.

Table.1 Business entities that have ordered via Internet

Year	2008	2009	2010	2011	2012	2013
Data	***9.8%***	***7.1%***	***6.8%***	***8.1%***	***5.1%***	***4.6%***

From the above table we can see that the non-financial sector business entities with 10 or more employees, that have ordered via Internet have a in decreasing tendency of 4.6% in 2013

[215] A. R. Cooper, M.B. Cooper, and D.F. Duhan, "Measurement Instrument Development Using Two Competing Concepts of Customer Satisfaction", *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior* (2), 1989, fq. 28-35.

[216] Caceres, R.C. dan Paparoidamis, N.G. (2007), "Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty," *European Journal of Marketing*, Vol. 41 (7/8), 836-867.

[217] Saha P, Zhao, Y "Relationship between Online Service Quality and Customer Satisfaction", Lulea University of Technology, 2005, fq.6

[218] Kolter.P, Marketing Management, International Edition, Prentice- Hall, Englewood Cliffs, NJ. 2000, fq.36

[219] Elmazi,L & Bytyçi, Sh. "Drejtim marketingu (Drejtimi i bazuar në treg)", Prishtinë,2007, fq.221-222

[220] www.stat.mk

while in 2008 was 9.8%, which practically is the highest percentage. However, out of the data we understand that business entities in recent years have reduced the ordering products via the Internet.

3.1Analysis of primary research data

The research was conducted with the help of students of FBE at SEE - University in Tetovo. A representative sample on age and gender of 1600 respondents were taken in the survey. The questions are structured according to general rules for compiling questionnaires and are not suggestive and cause no generally accepted answer, and do not contain prejudices and assessments. This research was conducted in the period from October to December 2014.

In order to be seen in the relationship between research indicators various questionnaire responses are analyzed. The following tables and charts will reflect the visual data obtained.

Table 2. Results of the link between age and Internet usage

Do you use Internet?						
Age	**Yes**		**No**		**Total**	
<19	170	85%	30	15%	200	12.50%
20 – 34	530	98,1%	10	1,9%	540	33.75%
35-59	590	76,6%	180	23,4%	770	48,125%
60 >	10	11,1%	80	94,4%	90	5,625%
Total	**1300**	**81.25%**	**300**	**18.75%**	**1600**	**100%**

In Table 2 we can see that from 1600 respondents, 12.5% belong to the age group from 19 years, while 85% of them use the Internet. Respondents aged from 20-34 years out the total number of respondents make up 33.7%, while 98.1% use the Internet. Respondents of the age 35-59 years have the highest representing rate of 48%, and 76.6% of them use the internet. While the less represented age group are 60 years which is 5.6%, out of which 11.1% use the Internet.

Of the total number of respondents who use the Internet belong to the age group 35-59 years (48%), which means that for this age group the Internet is becoming part of their everyday life.

Table 3. The relationship between gender and customer attention on Internet advertising

Gender						
Do Internet advertising draw your attention?	Male		Female		Total	
Yes, I frequently click on them to be informed in more detail	440	51.1%	420	48.8%	860	53.7%
No, I don't not even notice that they are located on web-sites	340	45.9%	400	54%	740	46.2%
Total	770	48.1%	830	51.8%	1600	100%

From Table 3 we can see that the largest number of respondents of 53.7% often click on Internet sites to obtain detailed information on the offer, which confirms the fact that the Internet is used more for information than for purchases by consumers. From the table we can also note that the attention of advertising on Internet websites is mostly drawn by female with 51.8%.

Table 4. Results of the relationship between the level of education and the purchase of the product on the Internet

Level of education												
Do you buy products via the Internet?	Primary		Secondary		Higher / University		Master		Phd		Total	
Yes	10	2.0 %	230	47.9 %	200	41%	30	6.2%	10	2%	480	30%
No	20	1.7 %	650	58%	320	28 %	130	11 %	0	0	1120	70%
Total	30	1.8 %	880	55%	520	32%	160	10%	10	0.6 %	1600	100%

From Table 4 it is evident that the largest number of respondents (70%) do not buy products via the Internet. Among the respondents who have a higher level of education show an higher rate of Internet buyers, compared with lower levels of schooling.

Table 5. Results amongst the employment relationship and the type of media from which customers get informed of new products offered on the market

Employment status						
Which media do you use to get information about new products offered on the market	**Employed**		**Unemployed**		**Total**	
Television	310	46.9%	350	53%	660	41.2%
Internet	420	48.8%	440	51.1%	860	53.7%
Radio	0	0	10	100%	10	0.6%
Newspaper	20	40%	30	60%	50	3.1%
Other	20	100%	0	0	20	1.2%
Total	770	48.12%	830	51.8%	1600	100%

The largest number of respondents when it comes to gaining new information about products offered in the market are also informed through the Internet (53.7%), out of which the largest number are unemployed (51.1%). Television follows immediately after the Internet as an information channel through which 46.9% of respondents who were employed and 53% who were not employed use it as a tool to get information about the products that hit the market. It means that Internet, whether used by employed or unemployed customers, gradually passes in a mass means of informing consumers, leaving behind the traditional mass media which practically are not used to obtain information on the emergence of new products on the market.

Table 6. Results of the relationship between family monthly income and the location where Internet is mostly used

Total monthly income of your household								
Where do you use Internet most often	< 200 €		200-500 €		> 500 €		Total	
Home	380	33.9%	630	56.2%	110	9.8%	1120	70%
Internet café	20	100%	0	0	0	0	20	1.2%
Office	10	6.6%	90	60%	50	33.3%	150	9.3%
Other	0	0	10	100%	0	0	10	0.6%
(Do not use	180	60%	100	33.3%	20	6.6%	300	18.7%

Internet)								
Total	590	36.8%	830	51.8%	180	11.2%	1600	100%

Table 6 shows the relationship between the monthly income generated by the respondents and location where Internet is mostly used. From this we can conclude that despite the monthly income greater number of respondents (70%) use Internet at home. It means that the population perceives the positive side of the Internet.

Table 7. Results of the relationship between monthly income and purpose that the Internet is mostly used

Total monthly income / purpose of using the Internet **purpose:**								
Purpose:	< 200 €		200-500 €		> 500 €		Total	
Entertainment	120	20.3%	260	65%	20	11.1%	400	25%
Business purposes	50	8.47%	140	16.8%	60	33.3%	250	15.6%
Communication	210	35.5%	280	33.7%	80	44.4%	570	35.6%
Buy	0	0	10	1.2%	0	0	10	0.6%
Other	20	3.38%	40	4.8%	0	0	60	3.7%
(Do not use Internet)	190	32.2%	100	12%	20	6.45%	310	19.3%
Total	590	36.8%	830	51.8%	180	11.2%	1600	100%

The largest number of respondents or 35.6% who use the Internet, use it for communication purposes, 25% for entertainment, while 15.6% for business purposes.

The relationship between monthly income and purpose that mostly use the Internet are as follows: 65% of respondents to whom the monthly income amounting from € 200-500 used Internet for entertainment, 16.8% of them use the Internet for business purposes and 33.7% for communication. While, 35.5% of respondents who have a monthly income of up to € 200 use the Internet for communication purposes. From response analysis one can conclude that despite the monthly income, the Internet is mostly used for communication. Thus we understood that the use of social networks in recent time are accepted by respondents and also the use of email as an important segment of electronic communication.

Table 8. Results of the relationship between the purchase via the Internet and products features that are mostly matched / viewed

Do you buy products via the Internet						
What product features do you mostly look at on the Internet	Yes		No		Total	
Price	280	56%	220	19.6%	500	32.2%
Design	50	10.4%%	40	9%	90	5.6%
Recommendation	110	22.9%	210	18.7%	320	20%
Other	10	33.3%	20	66.6%	30	1.8%
Don't look at product features at all	30	2%	630	1.78%	660	41.2%
Total	480	30%	1120	70%	1600	100%

Table 8 shows how the respondents buy online and look at/compare characteristics of the products that they have bought or will buy through Internet networks. Out of 1600 respondents 30% of buy products via the Internet. 56% responded that they mostly of compare prices of products when shopping, whereas 22.9% of respondents value more the recommendations that have previously purchased through the Internet. Even 19.6% of respondents who do not buy through the Internet, compare the price of products offered online, and only 18.7% look at the characteristics of the products or services. By this we come to the conclusion that although the number of those who buy through the Internet is small, Internet is an important process during the acquisition, that affects the process of searching for the characteristics of the products themselves that they want to buy, either in the shop or on e-shops.

Table 9. Results of the relationship between family monthly income and purchasing products from domestic or foreign e-shops

Total monthly income and place of purchase								
Buying through:	Up to 200 €		From 200-500 €		More than 500 €		Total	
From local e-shops'	80	25%	210	65.6%	30	9.3%	320	20%
From foreign e-shops	40	26.6%	60	40%	50	33.3%	150	9.3%

(do not buy products via the Internet)	460	40.7%	570	50.4%	100	8.8%	1130	70.6%
Total	580	36.2%	840	52.5%	180	11.2%	1600	100%

Of the total number of respondents who buy through the Internet, 20% buy products from e - shop from Macedonia, while 9.3% buy from foreign e-shops. Of the respondents who have a monthly income from 200 to € 500, 65.6% find local shops as the most attractive ones. From the above data we can conclude that depending on monthly income, the domestic e-stores are recognized by respondents and thus all customers in the Republic of Macedonia.

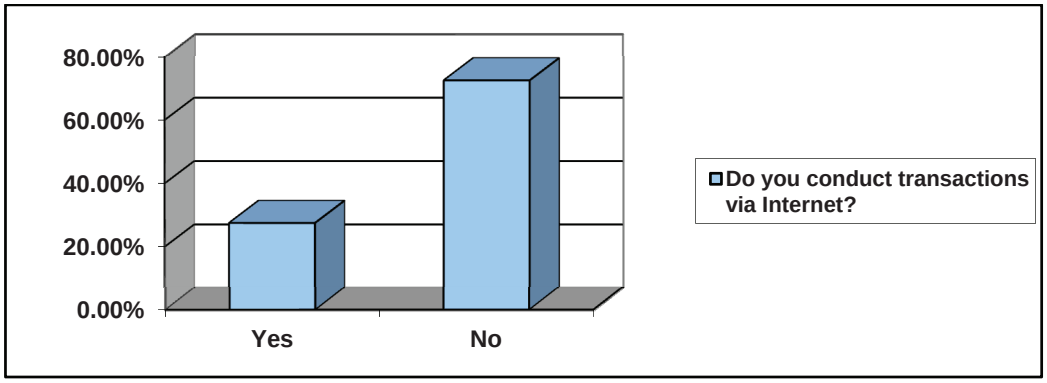


Figure 1.

In answer to the question of whether you conduct transactions via the Internet from all respondents 27.5% answered positively, while 72.5% of them gave a negative answer. By analyzing the responses we can conclude that the level of education is playing a very important role to decide whether to use the Internet for trading purposes.

Table 10. Results of the relationship between the level of education and attitude about security of payment via Internet

What do you think about the safety of payments through the Internet of your requirements?						
Level of education	Yes		No		Total	
Primary	0	0%	30	100%	30	1.8%
Secondary	340	38.6%	540	61.3%	880	55%
Higher / University	230	44.2%	290	55.7%	520	32.5%
Master	10	0.25%	150	93.7%	160	10%
Phd	10	100%	0	0%	10	0.6%
Total	590	36.8%	1010	63.1%	1600	100%

The largest number of respondents (63.1%) think that the payment of their claims is not secure via the Internet. Respondents with higher levels of education have more confidence in this

kind of payment while those with lower education levels are not confident. 31.3%of the respondents with secondary education do not think that this kind of payment is sucure.

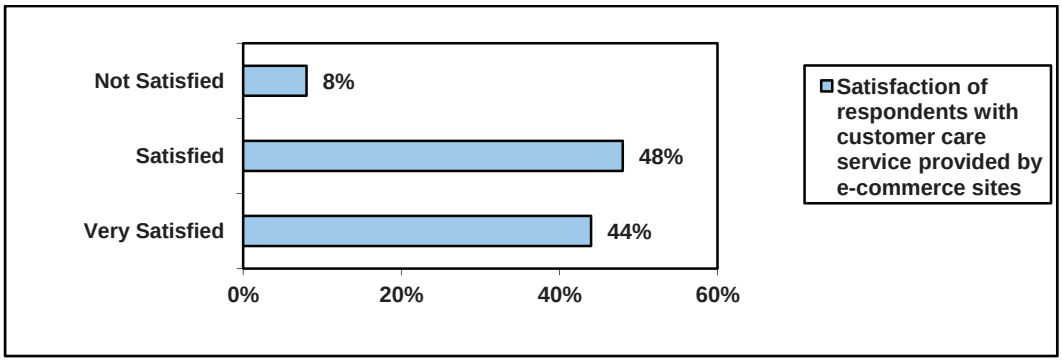


Figure 2. Satisfaction of respondents with customer care service provided by e-commerce sites

Figure 3 considers the respondents satisfaction with the quality of supply. From the respondents' answers we can understand that 70% of those who use electronic commerce are generally satisfied with the quality of the offer. Of these 14% are very satisfied and 6% of them very unhappy. Only 10% of respondents said they are dissatisfied with the quality of the offer.

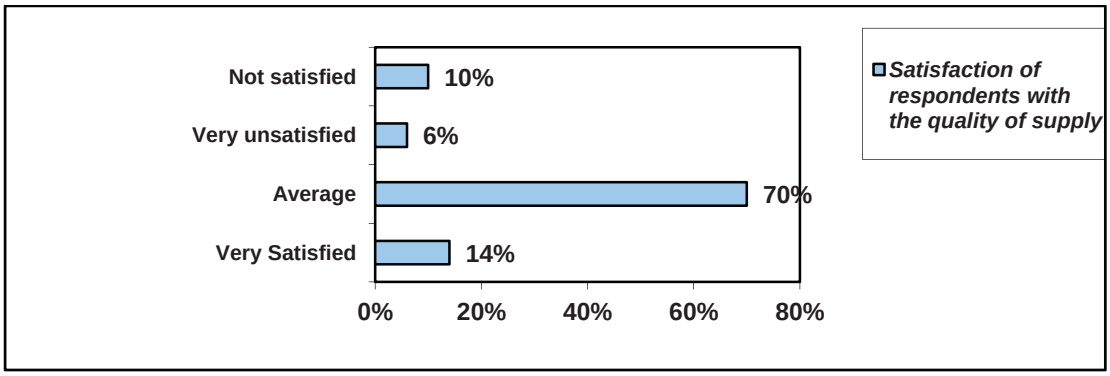


Figure 3. Satisfaction of respondents with the quality of supply

14% of respondents stated that they do not use these sites because of fear of fraud account, the majority of which are women. Respondents who stated that they are afraid of fraud, but they use these services just because of sales, account for only 9%. Most of the respondents who stated that there is always a possibility of fraud, but they use the services of these online websites, and accounted for the majority of all respondents 67%. Percentage of users who claim to consider these pages completely safe is 10%.

As mentioned above, the structure of the questionnaire contained also unstructured questions. Respondents had the opportunity, during unstructured questions within the questionnaire, to give reasons why they do not use electronic commerce. Generally, the following reasons were given: lack of trust on payment process when buying online, not withdrawing the products provided in the e-shops, not trusting in the quality of products and the lack of custom on e-commerce.

A part of the respondents think that the electronic commerce represents a deluxe process, while a good number are nor familiar with the process of accomplishing purchase via the Internet. So one of the tasks of the marketers in the future should be, the understanding of customers with the entire process of buying online.

4.Conclusions and Recommendations

All of us are consumers. Every day we consume various items that are in demand of our needs, desires, attitudes, motivation, lifestyle, our environment and given all the factors, whether internal or external, who affect us. All this affects to how and where we buy.

Thanks to information technologies, which has already penetrated all spheres of life, which reflects a different way to traditional customer behavior, which gradually leads to the formation of another type of customer, where the Internet is an extremely important factor in the process of purchase in total.

Based on the analysis of the survey we can conclude that with the acceptance of the Internet by the entire society together has begun to develop electronic commerce and has become inseparable part of our everyday life. In this context, it analyzed the use of e-Commerce and its impact on consumer satisfaction in Macedonia.

The investigation and proof of the link between the internet and consumer satisfaction, in this paper is included in the introduction and the conclusion.

The research is primarily focused on the practical aspects of research issues. From what we can come to the following conclusions:

- The Internet already for many years is the most powerful way of communication worldwide. Social previous efforts to realize the idea of globalization but individualization of the communication process, the Internet is the one who gave the most efficient solution. With the introduction of the Internet completely changed the way of working. In order for companies to be in step with customer demand, it is necessary to recognize the great potential offered by the Internet, as a tool for all types of business activities.
- In the online environment, customers can receive more information about the products and services to which they are interested, and the same were available anywhere in the world and at any time. It can easily and quickly compare different offers from sellers and thereby bring the right decision when buying. So for online retailers is necessary to create a large database, bonded with customers and based on the data collected to create offering products / services that fit their individual customers, their needs and interests.
- We live in the time of consumption economy in which consumers are everything. It is the result of huge production capacity. Customers are not deficient goods. Companies must learn to address not only the creation of a product but the focus on customer profitability. So, the customer and his behaviour is necessary to constantly be at the centre of marketing research.
- In terms of the modern era where the Internet is available anywhere, thanks to the appearance of groups and virtual communities, geographical segmentation will not be necessary either, and the same should be replaced with a global marketing strategy by marketing experts.
- Consumers using the Internet, simply for comfort of home to choose products, examine and compare performance, use the so-called online blocks forums to know the experience of other customers. Customers visiting the websites of companies have the opportunity to enter into direct contact with the producers themselves. So marketers should make greater efforts to find methods that will encourage customers to visit their web sites and become their online buyers.
- Companies that already understand the essence and importance of e-commerce and the Internet are directed to their work redesign. Through the Internet they affirmed the electronics market and the new opportunities that significantly affect the performance and progress of society. Electronic market is becoming a global market and become a virtual oasis in turn allows for the creation of intangible form of working. So, the Internet became the basic infrastructure of electronic market. On the other hand, the history of electronic markets shows that their number in the field is

growing, in sectors that they already used, which means that they become dominant players, but there is almost no expansion into new markets.

The reasons for this relatively low level of use of e-commerce in Macedonia should be sought in cultural factors; mainly widespread feeling of fear of potential fraud as a result of this kind of market. This kind of fear is a result of several factors. On the one hand, it stems from a lack of trust in state institutions (which should be a guarantee of reliability and honesty), which is mainly as a result of various events in the past twenty years (transition unfair sanctions, wars, etc.). On the other hand, a low level of trust is also deeply rooted in patterns of being friendly to the citizens of Macedonia.

Further more serious research of electronic commerce and promoting this way of doing business will certainly helped this goal. Through publications that bring the process closer to electronic commerce, as well as organizing lectures and seminars dealing with this issue, electronic commerce can even more significantly increase the number of its users in Macedonia.

It is proved that consumer satisfaction will be much higher if the products and services ordered or received is faster. In this way, users satisfied will continue to cooperate with electronic retailers, posting recommendations on electronic merchant sites. An indicator of consumer satisfaction is the return back to the e-commerce site, redemption and disposal of the product.

References

1. A. R. Cooper, M.B. Cooper, and D.F. Duhan, "Measurement Instrument Development Using Two Competing Concepts of Customer Satisfaction", *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior* (2)
2. Caceres, R.C. dan Paparoidamis, N.G. (2007), "Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty," *European Journal of Marketing*, Vol. 41
3. Caceres, R.C. dan Paparoidamis, N.G. (2007), "Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty," *European Journal of Marketing*, Vol. 41
4. P, Zhao, Y "Relationship between Online Service Quality and Customer Satisfaction", Lulea University of Technology
5. Aldag R. J. and Stearns T. M., (1987), *Management*, Cincinnati: South-Western Publishing Company
6. American Marketing Asociation, (2007), Available at http://www.marketing power.com/AboutAMA/Pages/ DefinitionofMarketing.aspx [retrieved 08 Jan 2012]
7. Balaram, P. (2000), Editorial: Information Overload, *Current Science*, Vol. 78, No. 5, pp. 533-534
8. Belch E.G., and Belch A.M., (2003), *Advertising and Promotion*, 6th edition, The McGraw−Hill Companies, Boston.
9. Boone, L.E. and Kurtz, D.L (1998), *Contemporary Marketing*, Southwestern/ Thomson Learning, Cincinnati.
10. Bovee, C.L. and Arens, W. F., (1992), *Contemporary Advertising*, Richard D. Irwin, Inc., Boston.
11. Capon, N., Capon, R., and Hulbert, M. J., (2009), *Managing Marketing in the 21st Century – European Edition*, Wessex, New York.
12. Churchill, Jr. A.G., and Peter, P.J., (1998), *Marketing: Creating Value for Costumers*, 2nd edition, Irwin/McGraw-Hill, Boston.
13. European Commission. (2005). *The New SME Definition: User guide and model declaration*, Enterprise and Industry Publications, Brussels.

14. Grönroos, C., (1994), From Marketing Mix to Relationship Marketing: Towards A Paradigm Shift in Marketing. *Management Decision*, Vol.32(2), pp.4-20.
15. Hisrich,D.R., (2000), *Marketing*, 2nd edition, Barron's Educational Series, Inc., New York.
16. Kotler, P., and Keller, L.K., (2012), *Marketing Management*, 14th edition, Prentice Hall, Boston.
17. Kotler, P., Armstrong, G., Saunders J. and Wong V., (1999), *Principles of Marketing*, 2nd European Edition, Pearson Prentice Hall Inc., New Jersey.

PATRIOTISM AND CONSUMER ETHNOCENTRISM AS A DRIVING FORCE OF DEVELOPMENT OF THE BIH ECONOMY

Arnela NANIĆ[221], M.Sc

Abstract

Nowadays, the economic reality is marked by the global economic crisis, record unemployment rates, low purchasing power, the foreign trade deficit, the emigration of young educated people, poverty, famine... Is there light at the end of the tunnel?! Namely, consumer ethnocentrism as a turning point of economic development of the country is progressing into a global research trend. Consumers are not generally aware of what power they have and how big their impact is to the development of their country. Consumer psychology is a powerful weapon that marketing experts have to use for the benefit of their company. At the moment, living in Bosnia and Herzegovina as an ordinary citizen with the average salary is not easy at all. Conversely, those who are employed and have regular salary are considered to be lucky - it is a success! The unemployment rate in BiH with a long standing tendency of growth breaks all records. If consumers in BiH were at least a little more conscious about the role and importance of buying local products, maybe some of these characteristics of economic development would be rather different.

The aim of the research was to determine whether there is a correlation between the degree of consumer ethnocentrism and the unemployment rate of the population. Also, results of the study will determine the differences in attitudes of surveyed respondents and preference for products of domestic origin. The survey was conducted by random sampling. Data were collected through a questionnaire, and CETSCALE was used to obtain relevant results, whose reliability was estimated using the Cronbach alpha coefficient. The results of the study indicate a correlation between trends in the unemployment rate and the degree of consumer ethnocentrism, as well as connection of consumer ethnocentrism and patriotism. The paper will determine the impact of key factors (economic, political, and demographic) to the level of consumer ethnocentrism. The goal of the research was to investigate the existence and level of consumer ethnocentrism among the citizens of the BiH, and to illustrate to consumers inadequacy and immorality of buying imported products, especially in these difficult times, the times of economic crisis. The aim of the research was also to bring consumers' attention to their role in reduction of unemployment and contribution to the economic development of the country, so they can recognize that buying imported products distorts the national economy and at the same time boosts the development of other countries.

Keywords: *Consumer ethnocentrism, Unemployment, Patriotism, Economic development, Bosnia and Herzegovina*

[221] Arnela Nanić, Univerzitet u Bihaću, Ekonomski fakultet Bihać, Pape Ivana Pavla II, 2, 77000 Bihać, arnelakazaferovic@hotmail.com, arnela.nanic@gmail.com

1. Introduction

Dear consumers: Have you ever considered the fact that you are responsible for the current state of the economy in our country? Do you keep track of what you are buying when you are in the store? Whether you are true patriots or you just call yourselves like that? Do you know what is the real situation in Bosnia and Herzegovina when it comes to unemployment, foreign trade deficit, and a number of other factors that are just due to the fact that the BiH citizens do not care about the country of origin when they are buying? Purchasing foreign –made products you are actually helping other countries and recharge their budgets, hiring their children, increasing their salaries, while we are slowly but surely going down! Dear Bosnian and Herzegovinian - are you aware of it ???

Consumers are certainly the most important and most valuable parts of the market. The basic idea behind marketing is to anticipate and recognize the wishes and demands of consumers, which is not an easy task at all. All activities in marketing actually begin and end with the consumers. Different consumers will satisfy their needs and desires in different ways. The entire process of making the purchasing decision is influenced by many factors. To understand the consumer behavior it is essential to understand the fully process of decision making, from the phase of cognition needs to the final phase - purchasing products. In the process of purchasing it is always about making a choice between at least two different possibilities or two different products.

The company can develop a good product or service, in accordance with modern technology achievements, acceptable as far as the legal and political system, but it still does not guarantee success in the market. Success will be demonstrated only through the reaction of consumers, in the form of acceptance of a product and its periodic or continuous purchases (Tihi, Čičić and Brkic, 2006, p.155). Authors who study the consumer's behavior have determined that there are various of factors that influence the consumer 's behavior and all of them are classified within the internal and external factors. There are many models of consumer's behavior that are created as a desire to connect all of the factors which ultimately the consumer's behavior depends on. The simplest models of consumer's behavior generally consist of several basic components: stimulants from the environment, "black box" and decision-making process about the purchase. The concept of consumer's „black box“ includes many factors that influence consumer's behavior and the final phase of decision-making process.

The emphasis in this paper is on a number of factors whose role is extremely important, and not only for making a final purchasing decisions, but globally the overall development of the country. These factors are: patriotism and consumer ethnocentrism. The main purpose and objectives of the paper certainly are to explore the foundations and development of the consumer ethnocentrism concept, and use the empirical research to establish what the relationship is, or what are the attitudes of Bosnian consumers towards the domestic products, and how much they are aware of their own role in the development of the country. The aim of this study was also to affect consumers that they become aware of their role and their contribution to the development of the country, and to become aware that the purchase of foreign-made products harms to domestic economy and at the same time helps the development of other countries. Ultimately, the main goal is to establish the influence of the extent to which consumer ethnocentrism and patriotism have on the final valuation and purchase products or services.

2. PATRIOTISM AND CONSUMER ETHNOCENTRISM AS FACTORS OF CONSUMER BEHAVIOR

The consumer is the center of market business. In the marketing world everything revolves around the customer. As the market place is a place where supply and demand meet, then if there is no consumer's need for products and services, there is no market at all. If there is no consumer's need, there is no demand for products or services and also there is no process of exchanges at all. Consumer's behavior is a complex process that involves all phases from identifying the needs for a product or service, through seeking information and evaluating them, then selecting the best alternatives and ultimately purchase the product or service. It can be said that the consumer's behavior involves the process of making decisions on the purchase of products or services, as well as the effect of individual consumers before and after the purchase process. In the process of purchasing decision a whole set of factors is included that influence the consumers in the final process of making decision and choosing the best products or services that will meet consumer's need. The main task of marketing experts is to discover the secrets of the consumer's „black box“, and to find out what is in their heads and minds, and how the external stimulants affect to the decision-making process. Consumer's behavior has always been a big challenge for marketing professionals, because each consumer is unique, so the study of consumer's behavior is eternal mystery and definitely „a never ending story“.

Precisely, timely manner and continuous monitoring of the purchase process, identifying the factors in this process and the distinction between specific types of decisions to purchase are essential to the success of any enterprise. Marketing experts who really want to meet the desires and needs of consumers need to fully understand the theory of consumer behavior (Blackwell, Miniard, Engel, 2006, p.4). In the world of marketing experts a number of factors that have an impact on consumers and his behavior in the decision-making process on the purchase are defined. Marketing experts generally cannot control these factors, but it must be taken into consideration when designing marketing strategies. All factors that influence consumer's behavior are mutually connected. Most of the authors have categorized all these factors in two main groups: external and internal factors. According to Grbac and Meler (2007, p.19-22) in the group of external factors these are included:

- Consumer's purchasing power
- Culture of consumers
- Affiliation to social class
- Reference Group
- Informations about the offer of the other market entities operating on the market
- Personal characteristics of consumers

Internal factors are specific and unique to each customer individually. According to them the internal factors are:

- Perception
- Motivation
- Learning and
- Attitudes

Schiffman and Kanuk put all the factors of consumer's behavior into two groups:

1. *The consumer as an individual* - here are counted consumer motivation, personality and behavior of consumers, perception, learning, creating and modifying consumer's attitudes, and communication and consumer's behavior

2. *Consumers in their social and cultural environments* - in this category are: the reference group and the influence of family, social class and consumer's behavior, the impact of culture on consumer's behavior, subculture, and cross-cultural consumer's behavior (Schiffman and Kanuk, 2004).

Kotler (1994, p.204) has classified all these factors that are crucial in the decision-making process about the purchase into several categories:

- *Cultural factors* - which includes the culture, subculture and social class
- *Social factors* - reference group, the family and the roles and status in society
- *Personal factors* - age, stage of life cycle, profession, economic status, personality of the consumers and the notion of self
- *Psychological factors* - motivation, perception, learning and beliefs and attitudes

So, the process of deciding on the purchase is very complex process in which consumers, influenced by many factors that are connected to each other, pass the way from the identifying the needs to the final selection and purchase of the product. However, in addition to the above factors a strong influence on consumer's behavior have two important factors influencing the overall economic development of the country, which are patriotism and consumer ethnocentrism. Taking into consideration the difficult times of crisis in addition to these two factors, another important factor is the social component, or the standard of living consumers. These factors and their relationship to the overall economic development of the country are shown in the model (Chart1), which was created as a result of the research.

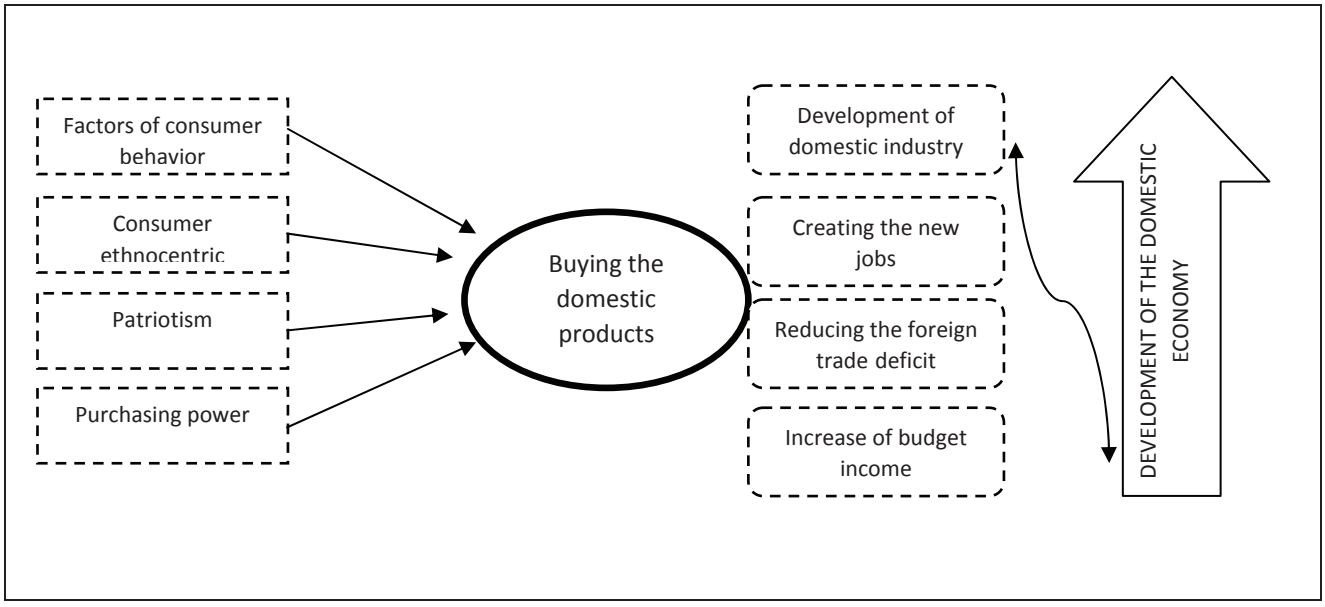


Chart 1.: Model - Patriotism and Consumer ethnocentrism for Economic development

2.1. Patriotism as a factor of consumer behavior and the development of the economy

At the very beginning, the question that arises is: What is the relationship between the patriotism and economic development of the country? Namely, that the patriotism by definition is a "love of country" it simply leads to the conclusion that the true patriots will do everything to give their personal contribution to the development and progress of their homeland. There are different definitions of this concept but all of them basically boil down to love of country, a positive attitude towards their own country, devotion and loyalty. The word patriotism comes from the Latin word patria - fatherland, and the Greek word patrios -origins, affiliation. This concept involves emotional

attachment and loyalty to his people, and based on the different characteristics of the people such as history, culture, language, customs and more. Patriotism is seen as a positive term, as the power of society and the basic condition for the development of the country. If we don't love our country and we don't do anything to help the development, then the others especially won't.

According to Wikipedia: *Patriotism* is, generally speaking, cultural attachment to one's homeland or devotion to one's country, although interpretations of the term vary with context, geography and political ideology. It is a set of concepts closely related to those of nationalism (https://en.wikipedia.org/wiki/Patriotism). Patriotism is commitment - a readiness to sacrifice for the nation , while nationalism is commitment plus exclusion of others, a readiness to sacrifice bolstered hy hostility towards others" (Druckman, 1994, p. 47). Patriotism is love of one's country, identification with it, and special concern for its well-being and that of compatriots (Pavković i Primorac, 2007, p.17). Patriotism refers to strong feelings of attachment and loyalty to one's own country without the corresponding hostility towards other nations (Balabanis et.al., 2001., p.160). Patriots, in general, exhibit a willingness to sacrifice for their country and subordinate their personal interests to national interests (Feshbach, 1990).

About the role and importance of patriotism for the growth and development of the economy of the country the Nobel Prize winner Robert J. Sillman has also spoken. He points out that raising the patriotic spirit is crucial to change the economic situation in a country. The belief in correctness of its own economic model and some form of "healthy nationalism" are the most important condition for a successful fight against an economy which has stagnated (http://www.bankar.me/2014/03/30/patriotizam-i-ekonomija/).

Recently, the patriotism easily becomes one of the most important conditions for economic recovery of the country. Upon entry of the economic crisis on the scene in Bosnia and Herzegovina the importance of patriotism is increasingly emphasized. It is essential that the love of country goes towards the direction of buying the local products, products that are made in BiH. However, a number of campaigns that promote the domestic economy and the importance of buying domestic products are carried out, but it still isn't enough to change the consumer awareness of domestic products. So, here the emphasis is on economic patriotism as a key instrument to protect and develop the local economy, especially in these times of crisis. Therefore, patriotism, especially *economic patriotism* is an act of social responsibility, ethical and moral behavior of every citizen. When economic patriotism becomes a way of life of the most citizens then the country's economic development is secured, because the money that people earn in BiH remains in BiH. With that money comes many positive changes: increasing of GDP, increasing the standard of living, exploiting the own resources, increasing the employment rate, increasing the country's competitiveness and development of the local economy creates new jobs, and finally builds the future of generations to come.

2.2. Consumer ethnocentrism as a factor in consumer behavior and the development of the economy

Ethnocentrism is a word of Greek origin, derived from the words of ethno - nation and centrum - Centre. Simply put ethnocentrism means to put oneself and his culture in the center, and rises above all, and at the same time diminishes the value of other cultures. Ethnocentrism was introduced to the sociological literature nearly a century ago by Sumner (1906). Ethnocentrism is the technical name for this view of things in which one's own group is the center of everything, and all others are scaled and rated with reference to it... Each group nourishes its own pride and vanity, boasts itself superior, exalts its own divinities, and looks with contempt on outsiders. Each group thinks its own folkways the only right ones, and if it observes that other groups have other

folkways, these excite its scorn (Sumner, 1906., p.13). The attitudes include seeing one's own group (the in-group) as virtuous and superior, one's own standards of value as universal, and out-groups as contemptible and inferior. Behaviors associated with ethnocentrism include cooperative relations within the group and the absence of cooperative relations with out-groups (LeVine and Campbell 1972). So, ethnocentrism means attributing positive qualities and experiencing one's own group or nation as superior to the other. The private group is perceived as optimal and is taken as the standard against which an individual evaluates members of all other ethnic groups.

The attention of marketing experts as well as experts in the fields of psychology, sociology and politics, is recently occupied by a phenomenon that tries to discover the origin, but also to explain why some consumers are repelled by and have the negative attitude towards imported products. This phenomenon is called the consumer ethnocentrism. In recent years, the concept of ethnocentrism became an interesting area of research for many marketers who have investigated the impact of this concept on the behavior of consumers and thus created a new concept - consumer ethnocentrism. From the standpoint of marketing ethnocentrism appears as a tendency to prefer purchasing domestic over imported products.

Shimp and Sharma used the term „consumer ethnocentrism" to represent the belifes held by American consumers about the appropriateness, indeed morality, of purchasing forign-made products. From the perspective of ethnocentric consumers, purchasing imported products is wrong because, in their minds, it hurts the domestic economy, causes loss of jobs, and is plainly unpatriotic; products from other countries are objects of contempt to highly ethnocentric consumers (Shimp and Sharma, 1987, p.280). Consumer ethnocentrism, as a dimension of this general consumer orientation toward foreign products construct, is designed to capture normative-based belifes that buying domestic products is somehow good for country, whereas purchasing non-domestic product is deletarious to the economy, the country, and to fellow citizens (Shimp, 1984., p.286). Ethnocentric consumers at the same time believe that the purchase of foreign products is an immoral act that can cause loss of jobs and harm the development of the domestic economy (Huddleston, Good and Table, 2001).

Thus, the notion of consumer ethnocentrism means the consumer aversion to imported products. Consumers with strong ethnocentric tendencies prefer buying local products and in some way condemn all those who buy imported products. Prejudices related to the assessment of the product according to the country where they are produced are a great challenge for all researchers in the field of international marketing and consumer's behavior. It is important to determine whether there is consumer ethnocentrism as one indicator of commitment to local products. Likewise, it is essential to come to realize to what degree consumers ethnocentrism affects the evaluation when purchasing a product.

Ethnocentric consumers want to personally contribute to the economic development of the country, as well as general social and economic welfare of the country. This concept actually provides support to domestic production, by favoring products from their own country at the expense of imported products. The presence of consumer ethnocentrism in the population of a country contributes to its economic development. Increased consumer ethnocentrism usually occurs when a country is in a difficult situation (the post-war period, the crisis), and expresses the desire to contribute to the economic development of the country. Consumers in which the consumer ethnocentrism is expressed negatively evaluate foreign products and consider that they are of lower quality compared to domestic and rarely buy them. Ethnocentric consumers prefer domestic products not only for economic or moral beliefs, but because they truly believe that the products manufactured in their country are the best. Consumer ethnocentrism is particularly evident when consumers are assured that their personal well-being, the well-being of the economy of their country, their children's future is threatened by imports.

Shimp, Sharma and Shin investigated the correlation between patriotism and consumer ethnocentric tendencies, and the results of their research found the existence of positive correlation. It is expected that patriotic individulas will show more consumer-ethnocentic tendencies than individuals who are less patriotic (Shimp, Sharma and Shin, 1995, p 28)

3. Methodology and interpretation of research results

The aim of this study was to o determine whether there is a correlation between patriotism, consumer ethnocentrism and economic development. For the purposes of this survey a method of collecting primary data on a sample of 200 respondents was used. The sampling consist of Bosnian consumers older than 18. For this research it was used 17-item scale called CETSCALE (Consumer Ethnocentric Tendencies SCALE) to assess consumer's ethnocentric tendencies. This scale consist 17 items that has been used for measuring consumer ethnocentrism. The CETSCALE was comprised of 17 Likert-Type items, that are anchored by 1-strongly disagree to 7-strongly agree. In this paper it will be presented and analyzed the results of three items of CETSCALE that are associated with economic development. This study determines a level of ethnocentric tendency of consumers. It also defines the attitudes of consumers on the correlation between unemployment rates, job creation and consumer ethnocentrism, and ultimately the development of the economy in genera.

Reliability of the scale was confirmed by Cronbach 's alpha coefficient. Cronbach's alpha coefficient was used to measure the consistency and reliability of the group claims, and which value can be from 0 to 1. The value of this ratio is closer to 1 the value is closer to the higher level of reliability of the scale for research. The recommended limit of this ratio at the exploratory research is 0.5, which means that the results below this value are not reliable to apply the further research. The value of Cronbach alpha coefficient of 0.826 indicates the high reliability of the scale (Table 1). For the analysis and processing of the research results mathematical and statistical methods needed for data collection and processing were used as well as the presentation of obtained statistical data through SPSS.

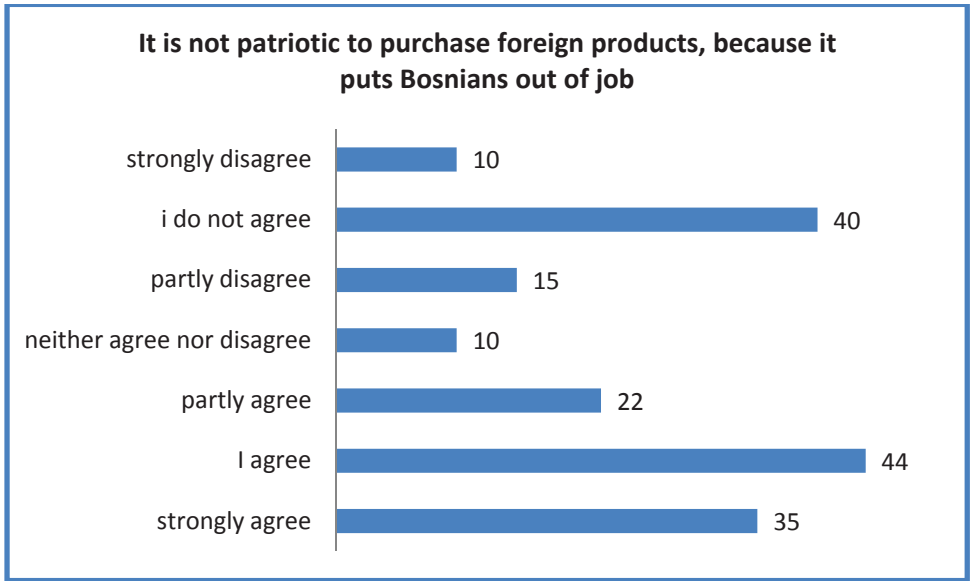
Tabela 1.: *Reliability of CETSCALE*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.826	.826	17

Tabela 2.: *Item-Total Statistics*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T-1	59.90	50.521	.347	.242	.704

Table 2 shows the reliability of the claims: It is not patriotic to buy foreign products, because it puts Bosnians out of job, which directly slows down the development of the domestic economy. Cronbach's Alpha for the above assertion is 0.704 which indicates the reliability and admissibility of claims in future researches.



Graph 1.: *It is not patriotic to purchase foreign products, because it puts Bosnians out of job*

According to the research of more than 50% of the total number of respondents agreed with the statement set, while only 32.5% of respondents expressed various degrees of disagreement with the statement, while the remaining 5% of the group are respondents who neither agree nor disagree with the statement.

In the next statement: Buy BH products! Let the BiH citizens be employed! which directly connects the purchase of domestic products and employment of BiH citizens and displays them as two phenomena that are directly proportional to each other, there has been a high level of consumer ethnocentrism, probably because of the very high unemployment rate in B & H and the USC. With this statement agreed by 85% of respondents, 15% expressed partial agreement, and the percentage of those who disagree with this claim is 0%.

With the following statement: Imported products should be highly taxed in order to reduce their presence in BiH fully agreed 45% of total surveyed consumers, 37% agreed with the statement, slightly lower the percentage of those who partially agreed or disagreed, even 30 % of respondents disagreed with the statement, while 12% of respondents disagreed.

Complete ethnocentric consumers are the ones who will always, in the process of buying, regardless of all other characteristics of the product, choose domestic product, i.e. which is produced in BiH. This category includes consumers who in the majority of allegations responded with: I agree or strongly agree. The second group consists of consumers who are part ethnocentric, meaning to give a slight advantage to domestic products, but are buying and imported products regardless of the same as products in domestic production. The third category consists of entirely non-ethnocentric consumers, ie. those who have responded to claims in cetscale with: I do not agree and disagree. This group consists of consumers who would rather choose the imported product when buying. For these consumers, the country of origin of the product is not at all important, and they generally do not know or are interested in the fact that in this way they increase the foreign trade deficit in his country, which entails a whole series of negative developments in the economy. Based on the analysis of the whole CETSCALE it can be concluded:

- Of the total number of surveyed citizens, according to the results of a detailed analysis, 51% of respondents showed a high level of agreement with the given statements about the purchase of

local products and the protection of domestic production. This group of consumers will always prefer to buy domestic rather than imported products, but it should be noted that the largest percentage of them has put the price on the first place;

- Even 30% of respondents are partially ethnocentric - which means that they buy local products, but also buy regularly and imported products.
- The last category are non-ethnocentric consumers. In this category there are 19% of the total number of respondents. These consumers do not care about the local economy and it does not matter to them whether they are buying imported or domestic products, for them there is no difference, and they do not feel they need to fix the economy, but a government that does nothing.

4. Conclusion

BiH consumers have many prejudices about domestic products. Most BH consumers consider only those products coming from imports have the quality. Such consumers bypass domestic products in stores, without giving any chance to our domestic producers. This group of consumers knowingly causes great damage to the local economy. All developed countries of the world know the importance of buying local products and invest a lot of effort in order to protect domestic producers. Only we close our eyes and help others to enrich themselves at our expense! Buying domestic products strengthens our own economy, we keep the money in your country, we fill our budgets, provide ourselves salaries, pensions, reduce the unemployment rate, reduce the foreign trade deficit (...) and thus contribute to the development of our country, not someone else's !!! Such prejudices can be changed, but it is quite a complex and lengthy process in which we must all be included! If we want to survive in the global competition, if we no longer want to be placed among the poorest countries, we must urgently wake up !!! We need to change the awareness of local consumers, awaken a sense of patriotism in them, a sense of responsibility towards the country we live in, a sense of moral obligation to buy domestic products, products produced by our diligent producers, using safe ingredients, grown in our country !!! Ours, not someone else's.

Most of our customers do not even realize how many high quality local products are offered by our manufacturers. Most often we do not want even to try a domestic product, and we have already condemned him !!! Most citizens of Bosnia and Herzegovina believe that we should buy domestic products, but they actually do not do it. Our trade deficit is enormous !!! There is no excuse, we are alone to blame !!! We increase the deficit by buying imported products from year to year .

It is not ethical to buy imported milk, meat, water, when we have excellent domestic products from these categories! You can not say that you love your country, and at the same time consciously buy imported products !!! There are worrying statistics according to which we import the most those categories of products that we can easily produce: cereals and cereal products, beverages and tobacco, meat and meat products, dairy products, and fruit and vegetables!!! We Bosnians must finally realize that only we can help ourselves! One of key problems for those consumers who really want to buy local products is that the local products are underrepresented in our shopping malls and local stores, and also not recognizable. Most consumers believe that domestic products are all those products coming from countries in the region. Extremely poor support and protection of domestic producers by the country, and the lack of promotional campaigns like that "Buy and use domestic" which would raise consumer awareness about the importance of buying local products.

Accordingly, there is no excuse for the purchase of imported products where there are local products of the highest quality! There is no excuse and no justification !! We are a small country, and the only salvation is to support domestic producers, to rely on our own resources, because it is the only way the money stays in our country, and with that money we build Bosnia and Herzegovina, for ourselves and for future generations!

References

1. D Blackwell – Paul W. Miniard – James F. Engel (2006), *Consumer Behavior, tenth edition*, Thomson /SOUTH- WESTERN, Manson, Ohio

2. Balabanis, G.,et. al. (2001). *The Impact of Nationalism, Patriotism and Internatinalism on Consumer Ethnocentic Tendencies,* Journal iof International Business Studies, 32,1, First Quarter p. 157-175.

3. Druckman, D.(1994), Nationalism, Patriotism and Group Loyalty: A Socila Psyhological Perspective, Mershon International Studies Review, Vol.38, No.1., p.43-68

4. Feshbach, S. (1990) *Psychology, Human Violence and the Search for Peace: Issues in Science and Social Values*, Journal of Social Issues, 46: 183-98.

5. Grbac, B. –Meler, M. (2007), *Znanje o potrošačima – odrednica stvaranja konkurentske prednosti,* Ministarstvo gospodarstva, rada i poduzetništva, Zagreb

6. Huddleston, P., Good, L. K., and Stole, L. (2001), *Consumer ethnocentrism, product necessity and Polish consumer's perceptions of quality*, International Journal of Retail and Distribution Management, 29(5), 236–246

7. Kotler, P. (1994), *Upravljanje marketingom,* Informator, Zagreb

8. LeVine R.A., and Campbell, D.T. (1972), *Ethnocentirsm*, New York, John Wiley

9. Pavković, A.-Primorac, I. (2007). *Patriotism: Philosophical and Political Perspectives,* Igor Date
10. Schiffman,L.G.-Kanuk,L.L. (2004), *Ponašanje potrošača, sedmo izdanje*, MATE, Zagreb

11. Shimp, T., and Sharma, S. (1987). *Consumer Ethnocentrism: Construction and Validation of the CETSCALE,* Journal of Marketing Research, Vol. XXIV, No. 3., p.280-289

12. Shimp, Terence A., (1984), *Consumer Ethnocentrism: The Concept And A Preliminary Empirical Test,* Advances in Consumer Research, Vol. 11, Issue 1, str. 285.-291.

13. Sharma, S.- Shimp, T.A.-Shin,J. (1995). *Consumer Ethnocentrism: A Test Of Antecedents and Moderators,* Journal of the Academy of Marketing Science, Vol.23, No 1.1995

14. Sumner, W.G. (1906), *Folkways*, Ginn and Company available at http://www.gutenberg.org/files/24253/24253-h/24253-h.htm

15. Tihi,B.-Čičić,M.-Brkić,N.(2006), *Marketing, treće izmjenjeno i dopunjeno izdanje,* Ekonomski fakultet u Sarajevu

16. https://en.wikipedia.org/wiki/Patriotism (accessed 26.06.2015)

17. http://www.bankar.me/2014/03/30/patriotizam-i-ekonomija/ (accessed 01.07.2015)

ELEMENTS OF TOURIST DEVELOPMENT: CASE STUDY – TREBINJE IN REPUBLIKA SRPSKA

Dajana Vukojević, PhD[222]

Jana Čarkadžić, graduate student[223]

Predrag Ždrale, graduate student [224]

Todor Obradović, graduate student [225]

Apstract

For purposes of exploring tourist valorization we examine and evaluate the qualitative and quantitative assessment of the value of all the tourist attractions and their enumerated motive values, as well as other constitutive elements of tourist potentials (tourist equipment). Valorization is one of the most important stages in the process of spatial planning of tourism, but it is by far the most complex and most difficult stage, especially when it comes to estimating the values themselves because the importance of tourism is difficult to evaluate objectively. The aim of valorization is to assess the value of the elements of tourist potential (individually and collectively) and to determine their use and exchange value.

For the purpose of tourist valorization, in this paper we will provide an evaluation of the touristic potential of Trebinje with special emphasis on tourist attractions in the area, which according to the authors, is the most important aspect of the overall tourist potential in Trebinje's geographic area.

There are numerous and varied elements of tourist valorization. Given that there are different approaches to the methodology of tourist valorization provided by different authors, the evaluation of the tourist potential of Trebinje could not use one single method. Therefore, using a combination of different elements, criteria and factors of different authors Prikryl (1971), Stankovic (1994), Comic (1990, 1997), Jovic (2005), as well as the recommendations of the World Tourism Organization (UNWTO, 1980) will be researched.

For this research, under the basic elements of tourist valorization we mean attractiveness of tourism resources, their geographical location, spatial distance from the emitting region representing the origins of a large number of tourists, the material base of tourism and the tourist business. The results that were obtained using qualitative and quantitative methods will be illustrated and conveyed graphically, or tabulated in terms of views and cartographic.

***Keywords**: Tourism, development, attraction, Trebinje, Republika Srpska, Bosnia and Herzegovina*

[222] Univerzitet u Istočnom Sarajevu - Office for science, research, development and investments, Vuka Karadžića br. 30, 71123 Lukavica, Bosna i Hercegovina. Email address: dajana.vukojevic@ues.rs.ba

[223] Univerzitet u Istočnom Sarajevu - Office for science, research, development and investments, Vuka Karadžića br. 30, 71123 Lukavica, Bosna i Hercegovina. Email address: jana.carkadzic@ues.rs.ba

[224] Univerzitet u Istočnom Sarajevu - Office for science, research, development and investments, Vuka Karadžića br. 30, 71123 Lukavica, Bosna i Hercegovina. Email address: predrag.zdrale@ues.rs.ba

[225] Univerzitet u Istočnom Sarajevu - Office for science, research, development and investments, Vuka Karadžića br. 30, 71123 Lukavica, Bosna i Hercegovina. Email address: todor.obradovic@ues.rs.ba

Introduction

A tourist destination is a place which provides tourists all that is necessary to fully experience the adventure, relaxation, fun, education and so forth. The foremost task of the tourist destination is to, through the complex touristic offers of attractive, receptive, infrastructural and superstructure resources, respond to the diverse demands of the modern tourist requests. The destination must dispose of all material, physical and human resources if it is to be progressively developed and successfully meet the wishes and needs of tourists (Šimićević, Nicić, 2007).

Tourist destinations offer the most important content serving to trigger every journey. The number of tourist destinations continuously increases (there are constantly new destinations in countries that until recently were closed and undeveloped for tourism receptive), and the quality of their offerings necessarily increases (to diversify the product and the product becomes more complex) as a result of increased competition and major financial investment in the newly developed tourist countries. Quite new tendencies appear on the tourism demand, which is particularly reflected in the individualization of demand, as well as raising the level of education and the interests of changed tourist products which include more content from the fields of culture, education, adventure, sports, health program, gastronomy, etc. (Bakic, 2002).

The aim of this work is to demonstrate, on the basis of previous results in tourism, the strengths and weaknesses of the tourist development of the municipality of Trebinje, as well as on possible further actions to advancing the development of tourism in Trebinje.

Natural and social potential for developing tourism

Trbinje is located in the south of Bosnia and Herzegovina, in the northeastern part of Trebinje field, at an altitude of 274 m. The river Trebišnjica flows through the entire territory of Trebinje (the largest underground river in Europe and one of the largest underground rivers in the world, measuring 98 km). The area is situated in Humine (low Herzegovina[226]), on a narrow strip that divides the karst lakes from the Adriatic Sea. The town is located in the surrounding area of the Adriatic Sea, more precisely, in the hinterland of Dubrovnik and Herceg Novi Riviera. Trebinje covers an area of 904 sq. km; it is surrounded by hills and mountains enclosing its north, east, south and southwest areas, and the lowlands of Popova and Mokro Polje, in the central and western part of the field. In the north, Trebinje borders with Bileća, in the northwest with Ljubinje, the south and southwest with the municipality of Ravno, in the south and southeast of Dubrovnik and Herceg Novi, and on the east with Nikšić.

According to the tourist touring in the immediate region of Trebinje, its position is favorable. Trebinje is located on the border of the two tourist regions on the Adriatic coast - Dubrovnik and Montenegro Riviera. The roads connecting the northern parts of Bosnia and Herzegovina to the sea play a major role for the tourism of Trebinje. Traffic links that connect the coast with Sarajevo tourists from Bosnia, which is 209 km further north from the city, the valley of the river Bosna with agrarian areas of Vojvodina, the capital of Serbia, Belgrade and other centers of the Pannonian area all pass through Trebinje. These are densely populated areas that gravitate towards the Adriatic coast and move towards the direction of the sea.

Another important road goes from Dubrovnik, via Trebinje, along the Drina valley, through Višegrad, Užice and further east along the valley of the West Morava from where it connects to the Pan-European Transport Corridor E-75. This road is of great importance because of its connection of the interior of the country to the sea side. In addition to this transit function, Trebinje has a

[226] Gnjato, 1991

contact function of its geographical position, which is reflected, among other things, in the fact that this area is bordered by two countries, it is in good neighborly relations positively reflected on the foreign tourist, the highest excursion and transit movement.

Travel trends that lead from the northwest to the southeast reach Herzegovina. One of the main tourist roads, the Adriatic highway, partially passes through the territory of Herzegovina, the touristic resort of Neum and connects all of its routes to the north along the valley of the Neretva River and from Dubrovnik to Trebinje (Mihić, 1968).

The main roads are to:
- North-west - towards Banja Luka
- North - towards Sarajevo
- South-west - towards Dubrovnik
- East - towards Nikšić
- South-east - to Herceg Novi

Trebinje is a city of sun, wine and plane trees. It is located in the triangle of cities within the UNESCO's heritage: Dubrovnik (28 km), Kotor (90 km) and Mostar (120 km). Thanks to Trebinje's busy traffic roads, towards the coast, it can be concluded that tourist traffic will be even higher in the future. Trebinje is an important center capable of directing the most important activities in Eastern Herzegovina, it is a center that organizes and serves a wide gravitational area.

Trebinje is located in the area of external Dinarides, belonging to a typical holokrast, from which the physiognomy of its space is derived. This space is a typical karst terrain with highly developed forms of karstic erosion, ranging from cracks and sinkholes, to the bays and karst fields. Trebinje lies in the favorable Mediterranean climate with 260 sunny days in a year. The beauty of Trebinje, expressed in the classic Mediterranean style with elements of the Herzegovinian culture and distinctive features, is complemented by the decades old long boulevards and parks.

In the area of Trebinje there are cultural values from different eras, as well as preserved remains of the different cultures that inhabited this area. Among the most striking architectural heritage in Trebinje include the Old Town - Kastel (created in the early eighteenth century), Arslanagića (Perovića) bridge, which was built by Mehmed Pasha Sokolović around 1570, the Clock Tower which was built in the eighteenth century, Tvrdoš Monastery built in the early sixteenth century, Osman Pasha Mosque built in 1726, Duži Monastery built in the late seventeenth century, and Herzegovinian Gračanica built on the Crkvina hill above Trebinje. The monastery complex was built in honor and gratitude to the great Serbian poet, diplomat and patriot Jovan Dučić, and Njegoš's monument was the first of its kind built in the world in Trebinje in 1934. The image of the city as a cultural, educational and spiritual center is complemented by the many educational institutions, schools, universities, museums, legacies, galleries, art colonies, amateur theaters, cultural clubs and many cultural events. The museum of Herzegovina, with a permanent exhibition, a number of bequests and depots with exhibits of priceless cultural and historical value, and permanent stands at promoting new scientific discoveries in the fields of history, archeology and ethnography, further on the National Library with Dučić's bequest valuable examples of stone sculpture and significant paintings of the author's personal library, all represent institutions of utmost importance and pillars of cultural development of the city and its wider area.

The identity of the city, as a cultural and spiritual center, is complemented by cultural manifestations which exceed the regional and national character, thus becoming a focal meeting point of numerous artists and cultural professionals (Vukojevic, 2010).

The material basis of tourism development in Trebinje

The material basis of tourism and tourist construction status represents a static component of the tourist physiognomy space, or direct transformation of morphological structures of settlements under the influence of tourism (Jović, 2005).

The degree of attractiveness of the overall tourist offer depends on the degree of the material base of tourism as an element of the tourist offer. It could be said that dependence is reflected in the extent to which well-developed and functional tourist equipment enables use of the content of tourist attractions by the tourists.

Based on the data provided by the Tourism Organization of Trebinje in this part of the paper we analyzed the material base of tourism of Trebinje between years 2007-2013.

In 2013, Trebinje offered 525 beds in 250 rooms/suites, which sums up to 18.5% in comparison to the capital of Srpska, Banja Luka. Trebinje's accommodation offer contributed with 5.9% in relation to the total capacity of the Republika Srpska.

Table no. 1 Accommodation capacity of Trebinje in 2013

	Type of commodity	Number	Rooms/Apartments	Beds
Trebinje	Hotel	5	193	378
	Motel	1	35	115
	Boardinghouse	1	6	12
	Other	1	16	20
	Total	**8**	**250**	**525**

Source: Republic Bureau of Statistics in Republika Srpska

Namely, there exist 525 beds in the abovementioned facilities, those being:

- Five hotels with 378 beds or 72%;
- One motel with 115 beds or 21,9%;
- One boardinghouse with 12 beds or 2,2%;
- One facility in the 'other' category with 20 beds or 3,8%.

According to the Republic Bureau of Statistics of the Republika Srpska in 2013, the catering industry in Trebinje areas is represented at 19 locations. The city has seven restaurants with 412 seats, which makes 22.8% compared to Banja Luka, or 4.7% of total restaurant capacity of the Republika Srpska.

The life in Trebinje is complemented by the shops. In 2012, there were 189 shops. The offer of the city comprises of a variety of premises: buffets, cafes, coffee bars, pizzerias, confectionery, dairy restaurants, and roaster restaurants.

Trebinje has a relatively favorable traffic network. All main roads have an asphalt driveway, while at a regional level, asphalt and macadam roads are existent. Trebinje is connected to the rest of Bosnia and Herzegovina and its neighbors through the main and regional roads.

Tourist frequency

Tourist traffic is a dynamic component in the tourist physiognomy of an area or a village. Hence, only static or dynamic presence of tourists and their vehicles in a receptive region is a factor temporary transformation of the landscape and a source of pollution. However, during their stay tourists likewise want to enjoy sports, recreational, cultural and leisure activities. Some of these activities directly, others indirectly influence the transformation of the physical space and the settlements, as a specific anthropological component in the geo-cultural space (Jović, 2005).

The analysis of tourist visits in Trebinje was derived based on the statistical data of the Republic Bureau of Statistics of the Republika Srpska. The number of tourist arrivals and overnight stays (domestic and foreign) in the period from 2007 to 2013 is shown.

According to the Republic Bureau of Statistics of the Republika Srpska, 15,467 tourists spent time in the area of Trebinje, which accounts for 6.5% in the Republika Srpska, or 25.2% compared to Banja Luka, which had 24,954 overnight stays, accounting for 4% in the Republika Srpska or 24.3% compared to Banja Luka.

Table no. 2 Number of arrivals/visits and overnight stays in Trebinje from 2007–2013.

Year	Arrivals/Visits			Overnight stays		
	Domestic	Foreign	Total	Domestic	Foreign	Total
2007.	4891	2405	7296	6956	3535	10491
2008.	6053	2988	9041	9919	5527	15446
2009.	8046	2882	10928	13042	6124	19166
2010.	7237	3055	10292	11504	8086	19590
2011.	7416	2787	10203	12750	6834	19584
2012.	9452	3696	13148	12517	6216	18733
2013.	**9972**	**5495**	**15467**	**13315**	**11639**	**24954**

Source: Republic Bureau of Statistics in Republika Srpska

In the area of Trebinje in the reporting period there has been a steady increase in tourist arrivals, except in 2011 where a noticeable slight decrease is illustrated. The circumstances are similar when it comes to arrivals of domestic and foreign tourists. In the period from 2007 to 2013, the number of arrivals of domestic tourists increased by 5081 or by 50.9%, while the number of foreign tourists for the same period increased by 3090 or 56.2%. The total number of tourists who visited Trebinje in 2007 was 7,296, and in 2013 rose to 15,467, the number of tourists in this period grew by 8171 or 52.8%. A similar movement was also registered in the records of tourist nights. Number of nights from 10,491 in 2007 raised to 24,954 in 2013, addressing that the number of overnight stays in this period increased by 14,463 or 57.9%.

Coefficient of intensity of tourist traffic in 2013 in the area of Trebinje is 50.3%, which is significantly above the national average.

Table no. 3 The turnover of tourist traffic in Trebinje (in Convertible marks - KM)

Год.	Total turnover	Food and drinks	Alcoholic and non alcoholic beverages	Accommodation	Other	Number of units	Employed
2007.	839004	217260	135056	373731	112957	5	57
2008.	1407136	539311	251569	590647	25609	10	74
2009.	2210542	857528	520655	791391	40968	12	98
2010.	3554915	1762948	897772	823144	71051	17	126
2011.	4091910	2155165	984887	866330	85528	18	154
2012.	4533808	2017181	1514211	921750	80666	18	153
2013.	4481715	2039747	1359029	1050821	32118	19	149

Source: Republic Bureau of Statistics in Republika Srpska

In the achieved financial volume of tourist traffic the overall participation of Trebinje to the Republika Srpska in 2013 amounted to 4.481,715 KM or 4.2%.

SWOT analysis of Trebinje

A tourist destination is the synergistic effect of various economic sectors whose concerted action constitutes the basis for the development of tourism. This paper summarizes the most important strategic advantages of Trebinje upon which a further development strategy should be built, the most expressive weaknesses that need to be reduced or neutralized, opportunities to strategically utilize and threats that should be avoided or minimized. SWOT (strengths, weaknesses, opportunities and threats) methodology represents a bridge between the current situation and the desired future situation, the projected by a strategic plan.

Strengths

- The favorable geographical position; town on the border, with small distances from the port, the airport and the famous tourist destinations;
- By natural geographical features, one of the most attractive locations in South-east Europe for healthy life and holidays;
- Rich and diverse natural resources;
- Favorable climatic conditions for development of organic agricultural production (farming, fishing, beekeeping, sheep, poultry, vegetables, herbs, etc.);
- The hydropower potential;
- Fast, effective and dynamic development of the wine industry;
- Relatively good transport links with the environment;
- Close proximity to the Montenegrian and Croatian markets;
- Control and manufacturing center of the energy sector, the most important strategic sector in the RS and BiH;

- The possibility of development of agriculture, small businesses and entrepreneurship in tourism development;
- The existence of basic infrastructure networks;
- The existence of conditions for the development of different forms of tourism (hunting, fishing, recreation, rural, religious, cultural, thematic, etc.);
- A relative number of hotels, accommodation facilities and a variety of restaurants;
- A large number of objects of cultural significance, monuments, religious facilities;
- The city of unique cultural heritage and tradition.

Weaknesses

- Away from the main administrative and economic centers, it is still difficult freight and passenger traffic with Dubrovnik and Ploče;
- Lack of proper maintenance of local roads, roads and bridges;
- Insufficient number of transport vehicles and inadequate road traffic checkpoints;
- Maintenance and promotion of cultural heritage too dependent on decreasing budget and sponsorship funds;
- Insufficient number of high-categorized hotel capacity;
- Insufficient media coverage of positive examples, ideas and results;
- Wrong concept of renewal.

Opportunities

- Emphasizing various reforms in BiH increases the chances of local changes;
- Organic production, production of medicinal herbs and products;
- Inclusion in the programs and the use of legal benefits for development;
- Promotion of natural, religious and cultural heritage, especially in the framework of international deals;
- The development of continental tourism and willingness of the state to financial aid;
- Establish bilateral and multilateral cooperation with neighboring countries;
- Attracting strategic investors in the tourism and agro-food industry.

Threats

- Inadequate flood protection (Popovo Field);
- The possibility of pollution of the environment (water, air, soil);
- Acquisition of a negative image of an unsafe, crime place;
- Insufficient encouragement of the creation of the brand.

SWOT analysis is a suitable technique for each tourist destination in order to obtain the knowledge of all strengths and weaknesses. Since the development of tourism of Trebinje is achievable. It shows the SWOT analysis that will be in the next presentation and theme presented. Be defined: potential internal strengths (strengths), potential internal weaknesses (weaknesses), potential external opportunities (opportunities), potential external threats (threats) the geographical area of Trebinje and to the sector of tourism. Since the development of tourism of Trebinje must be conceived as a project to give rational answers related to the structure and growth of tourism, ie. its effective participation and positioning in the domestic and international tourism market. SWOT analysis is an important tool for the identification and classification of possible choice of key strategies and policies, in order to set goals and achieve. The analysis was made based on the results of tourist and geographic expertise relevant elements and factors of natural and cultural potential and attractiveness in the geographical area of Trebinje. One part was made on the basis of direct insight in the field and interviews with key persons in charge of the tourism sector in the area of

Trebinje. On the other hand, the profile of external circumstances ("opportunities") and threats ("threats"), is derived from the analysis of the market and competitors in the region. The tourist offer in the strict sense here represents the natural and cultural resources, various tourist attractions, tourist structures and tourist infra-structure.

The presented SWOT analysis, evaluation given by the author of the article points to the following:

1. The intensity of defects / weaknesses is smaller than the intensity of power / benefits – suggests that Trebinje with the overall economic development of developing tourism that at the beginning of a professional tourist industry;
2. Shanxi / opportunities in the environment is much more than threats / hazards, showing that things in the environment for now in favor of tourism in this area;
3. The constellation of relations arising out of the SWOT analysis indicates that the development of tourism of Trebinje should be approached as interrelated polygon. Investments will be optimal if used on internal strengths and opportunities, with the inevitable elimination of weaknesses. Without the removal of internal weaknesses investments would be suboptimal;
4. Weaknesses or deficiencies are elements on which tourism policy can act.

This SWOT analysis seeks commitment to further political marketing and lobbying for tourism of Trebinje since best economic studies and projects fail if policy bypasses and marginalizes, despite the bad end of the overall economic effects and losses, instead of prosperity. It should, therefore, by the end alert the interests of all stake holders to reach an agreement on the vision of tourism at the regional level, in order to ease the management of tourism. The existence of a large number of tourist resources (natural, cultural, historical, social) gives a wide opportunity for the development of tourism of Trebinje. The politics behind the future development of tourism must identify all potentials. Their planning, connectivity and management (natural and anthropogenic resources), enable a faster economic development. Through the concept of sustainability, the existing resources are preserved. We are primarily interested in the strategic competitive advantages that Trebinje offers upon which a tourism offer could be built in the future. The SWOT analysis has shown a wide ratio of strengths, weaknesses, opportunities and threats, and on this basis, a wide polygon strategy for action and their priorities is illustrated. Today's world competition in tourism is no longer managed only by organizational and quality criteria of the tourism offer in the strict sense. In times of universal access to information, the development technologies for different types of tourism offers are available to everyone. As such, they are quite easy to copy, but this could be avoided. Consistent and long-term tourism policies, which are guided on the principles of economic experiences, are increasingly focused on building and nurturing their own long-term strategic potential backed up by different types of offers which are harder to copy. Such tourist offers resulting from own long-term strategic potential are strategic resources doomed for success in the future. For successful tourism of Trebinje, the following strategic resources are identified:

- Geo-strategic position. Trebinje is located between two areas, mountainous and coastal, where the borders of Bosnia and Herzegovina, Croatian and Montenegro;
- Positive attitude of the population towards Trebinje tourism. Openness, innate hospitality and strong positive emotional relationship that the customer receives as a result of their stay in this area;
- Large untapped potential of the river Trebišnjica whose contours create a distinctive image of the unique and rich contrasts of the landscape;
- Inherited heritage monuments of different cultures.

Shortcomings must be urgently addressed in order to succeed on the international and national markets so that Trebinje could be positioned with a recognizable tourist offer:

- Lack of generally accepted vision of the development of tourism as an economic sector of great importance;
- It is still not sufficiently designed and established, spatial urban planning regulations of most existing and future tourist attractions (locations), arising from a lack of cooperation between state institutions and stakeholders in the tourism Trebinje;
- The lack of modern roads, as well as tourist road signs.

Starting from the identified strategic advantages and disadvantages, Trebinje should in its tourism development offers a number of different offers that undoubtedly arise from its strategic long-term potential to come and stay in it the best choice for foreign and domestic tourists.

Concluding remarks

Based on the results in this paper, and taking into account the latest trends in tourism development and consulting with the existing Development Strategy for the municipality of Trebinje, yet without wishing to opt for any unattainable solutions, we present the opportunities for the future development of tourism in the area of Trebinje.

The strategic goal of tourism development of Trebinje should be determined by the three-step matrix - the development, growth and survival (sustainability). In achieving strategic success in tourism, often times growth occurs as a success for survival and development as a condition for growth. The operations of tourist companies' growth and development are the result of the struggle for survival in the market.

Analysis of previous development of tourism in the area of Trebinje indicates that the continued existence of the business systems in tourism does not necessarily mean their growth, nor does growth mean development in tourism.

In the future development of tourism of Trebinje, the target should be to increase the competitive base of the tourism economy of Trebinje. A quality market designed and positioned tourist offer is required for the needs of the domestic and international markets, and as such, it ought to be feasible and with the trend of growth and development.

Tourism is an activity must be placed on the principles of sustainability as one of the priority objectives with constant protection of natural and cultural resources. In this way, tourism could become one of the poles of development of Trebinje community.

That the future development of tourism with such attainable goals, show and made tourist valorization of Trebinje and SWOT analysis.

Table no. 4. Goals of future tourism development of Trebinje

Raising the competitiveness level of Trebinje		
Increase of foreign currency influx	Growth of domestic tourist growth	Employment growth
Developing a positive image of Trebinje as a destination		
Sustainability and long-term protection of tourism values		
Improving the quality of life of the population		
Protection of tourism consumers		

Such a strategic commitment to the future development in the Trebinje region ensures an international positioning that is highly competitive for the development of tourism, but is likewise unique and recognizable at the national level.

The key objective of this development is to foster an integrated approach to sustainable tourism development, which contributes to the overall development. By definition of the Brundtland Commission (Brundtland Commission, 1987) sustainable development is development that meets the needs of the present without prejudice that the future generations have the ability to meet their own needs (http://www.msu.edu/~khattaba/classes/documents /Sustainability_ProjectDescription.pdf).

Sustainable tourism in terms of development aims to serve all the needs of tourists and long-term maintenance of environmental quality and enable future generations to the original characteristics of the natural and social resources to continue to develop tourism.

Sustainable development of tourism uses natural and cultural heritage with an aim to increase the number of visitors and profits, preserving the heritage for future generations.

According to the World Tourism Organization (United Nations World Tourism Organization - UNWTO) sustainable tourism development meets the demands of present tourists and local population while preserving resources for future development. Such development involves the management of resources in such a a way to meet the basic economic, social and aesthetic needs while maintaining cultural integrity, essential ecological processes and biological diversity.

Responsible tourism is a combination of social relations that are being developed within the host's cultural habitus and the natural environment, always including new forms of hospitality and removing every aspect of the relationship of superiority (*http://bs.wikipedia.org/wiki/Odgovorni_turizam*).

Quality planning of one region is one of the most important preconditions for long-term and sustainable development of tourism. Adequate use of space implies the adoption of spatial plans for tourism development in the shortest possible time.

Subjects of sustainable development in tourism:

- Man as the key subject (having different roles and activities);
- Employees in the tourism industry directly, but also indirectly impact sustainability;
- Companies (within basic, but also related businesses in the tourism industry) have a direct or indirect impact on sustainability;
- Public services have also a direct or indirect impact on sustainability;
- Local population has an extremely important role in the sustainability of tourist destinations;

- Tourists with their behavior directly affect sustainability.

Achieving sustainable tourism development requires all parties to act in accordance with the principles of sustainable development, and it is necessary to:

- Ensure continuous active role of government;
- Understand, recognize and meet the needs of tourists;
- Ensure the prerequisites for profitable business;
- Invest in employee training;
- Respect the cultural and religious diversity;
- Preserve and restore natural and cultural wealth.

This approach to planning and development of tourism will contribute to a clear profiling of the image of Trebinje municipality as a tourist destination and its better positioning in the tourist market.

Bibliography:

1. Bakić, M. (2002). *Marketing turističkih atraktivnosti – važan faktor konkurentnosti destinacije:* Zavod za udžbenike i nastavna sredstav. Beograd
2. Gnjato, R. (1991). *Istočna Hercegovina, regionalnogeografski problemi razvoja*. Geografsko društvo Bosne i Hercegovine. Sarajevo.
3. Jović, S. G. (2005). *Turistički potencijali naselja Jablanice*. Prirodno-matematički fakultet. Niš.
4. Jović, S. G., Vukojević, D., Ninković, R. (2009). Planning and management of tourist destination, International conference "Alternative tourism-teory and practice, Varna.
5. Mihić, LJ. (1968). *Turistički motivi i objekti u Hercegovini*. Turistička štampa. Beograd.
6. Turistička organizacija opštine Trebinje
7. Turistička organizacija Republike Srpske
8. Vukojević, D. (2010). *Turističko-geografska analiza Trebinja- Magistarski rad*: Filozofski fakultet. Pale.
9. Vukojević, D. (2014). *Uloga turizma u funkcionalnoj transformaciji regionalnih centara Republike Srpske- doktorska disertacija*: Filozofski fakultet. Pale.
10. Šimićević, D., Nicić, M. (2007). Osnovni elementi i pravci razvoja destinacija poslovnog turizma. *Turizam.* 11, pp. 52-54
11. Čomić, Đ. (1990). Neki teorijski i praktični aspekti turističke valorizacije. *Turizam*. 6, pp. 15-27
12. http://www.msu.edu/~khattaba/classes/documents/Sustainability_ProjectDescription.pdf)
13. http://bs.wikipedia.org/wiki/Odgovorni_turizam

ELECTRONIC MARKETING INFLUENCE ON ENTREPRENEURSHIP IN PERIOD OF TRANSITION

Prof.dr.sc.Brano Markić
Faculty of Economics University of Mostar, B&H
E-mail: brano.markic@sve-mo.ba
Prof.dr.sc. Sanja Bijakšić
Faculty of Economics University of Mostar, B&H
E-mail: sanja.bijaksic@sve-mo.ba
do.dr.sc.Arnela Bevanda
Faculty of Economics University of Mostar, B&H
E-mail: arnela.budimir@sve-mo.ba

Abstract

Electronic marketing is set of different types of digital communication of entrepreneurs with market, customers, suppliers, state administration, and other agents relevant for business process. It is based on both local and global computer networks' infrastructure that enables integrated marketing communication and fosters carrying out great number of business activities digitally. Electronic marketing does not only change business function of marketing but it also changes entrepreneurship. On the one hand it enables entrepreneur better information on customers, supplier, competition, while on the other hand it requires new knowledge on possibilities and forms of electronic marketing to improve his/her business effectiveness. This paper researches influence of electronic marketing on both entrepreneur's innovativeness and his/her estimations about business elements' changes in future (entrepreneur's proactivity), and his/her readiness to accept risk of doing business in transitional environment. Empirical research has been conducted in this paper where data were collected using a questionnaire, and key factors of electronic marketing influence on entrepreneurs' behaviour in transitional environment were identified applying factor analysis.

Key words: *electronic marketing, entrepreneurship, types of electronic marketing, factor analysis*

Introduction

Electronic marketing is realisation of entrepreneurial ideas and marketing activities of a company applying appropriate information technologies. Information technologies are integration of data processing technology (computer technology) and data transfer technology to unlimited distances. There are number of studies proving that information technology directly assists and contributes total company's competitiveness enabling information creation for decision-making at different organisational levels. Besides supporting an entrepreneur in decision-making, information technology is also a means of his/her communication with environment, customers, suppliers, market, and state administration. Electronic marketing can be emphasised as a source of information for proactive entrepreneur's activities in such communication system of an entrepreneur with environment, and it helps to decrease business risks and stimulate him/her to be innovative by informing him/her. Technology is repeatedly shown only as a means that enable initiation of two-way information process. That process has a starting point in a company in different types of electronic marketing (web place, email, and advertising); it spreads towards its environment but also from environment towards a company in form of feedbacks from customers, suppliers, and competition. Contemporary marketing is based on participation, personalisation, predictive modelling, and peer-to-peer communities. Electronic marketing intensifies and enables better and larger participation of customers or service users in product creation in comparison with traditional marketing.

A customer becomes an informer to a service provider participating and "intervening" in production process since products are shaped according to his/her wishes and needs. Product is more and more individualised and personalised increasing customer participation and his/her opinions and proposals. It is only possible to recognise needs, wishes, and requirements of the customers by investing enormous knowledge and efforts of analytical nature that ensure development of prognostic and customer's preferences detection models.

Data on customers' viewpoints and opinions are recorded as text on different social networks. Using text data mining methods enable cognition of those opinions, and then inform an entrepreneur and stimulate him/her to undertake new risk and develop new organisation that can adequately respond to customers' needs and requirements.

Therefore contemporary electronic marketing is entrepreneur's reference point that enables him/her to proactively operate towards market and customers, stimulate him/her on innovativeness and acceptance of new risks.

There are many types of electronic marketing (e-marketing) available for an entrepreneur such as real-time marketing, e-mail marketing, affiliate marketing, referral marketing, viral marketing, permission marketing, one-to-one marketing, and frequency marketing.

1. Types of electronic marketing

Viral marketing uses advertising on social networks to spread information about some brand at same speed as well as number of those social network users. It enables fast spreading of information about a product or service over the network. Besides using social networks viral marketing can also use blogs for the same purpose. The information about product or service is in form of pictures, text, interactive games or video clips.

Affiliate marketing is promotion of some product or service on collaborators' websites. "Collaborator" is awarded by in money after number of pays per click, pays per sale or pays per lead are confirmed. That type of electronic marketing is especially represented in touristic services.

Namely, each booking brings certain percentage of accommodation price to a collaborator (for example 5 to 10%).

Referral marketing enables gaining of new customers into an organisation. Gaining new customers into an organisation is paid (for example 5 new members), and they bring new members (for example each of those five brings eight new members) and hierarchial structure is formed. Such concept is often called *tell-a-friend*.

One-to-one marketing is **a form of electronic marketing** that emphasises personalisation of interaction with customers, which particularly contributes to increase in level of customer loyalty. Adaptation of marketing mix elements to an individual customer is the essence of one-to-one marketing. In the first place information technologies enable adaptation of promotion to an individual customer. Namely, it is necessary to develop databases about customers that are based on customers' characteristics e.g. their sociodemographic characteristics enable adaptation and personalisation of promotional activities.

Permission marketing is based on getting permission from a customer to receive marketing messages and information. It can be directly linked to electronic mail used by a company to send information to a customer or service user. Therefore e-mail is a form of electronic marketing that is frequently and simply used as a communication means. It enables improvement in relationship with existing customers as well as gaining new ones.

Frequency marketing limits number of banner reviews to an individual visitor. Namely, messages and marketing information are sent from the same server and cookies memorise number of reviews. For example limitation can be 5 reviews per visitor in 24 hours.

Real-time marketing endeavours to be fast, creative, and uses topical events in marketing directed towards a product or service. Real marketing assumption is permanent monitoring both local and global, of market, events, competition, but also openness to environment.

To implement those different forms of electronic marketing there are Internet infrastructure, appropriate computer equipment, software and communication gadgets at disposal. A user creates website, blog, becomes a member of different social networks (Twitter, Facebook, YouTube, Instagram, LinkedIn and other).

2. Electronic marketing influence on entrepreneurship

Therefore, an entrepreneur cannot distance himself/herself from such forms of communication with market, customers, suppliers or competition. Implementing different forms of electronic marketing an entrepreneur influences a customer and competition, and at the same time he/she gets important marketing information of customers' satisfaction with a product or service, their prices, advantages, and disadvantages of a product or service for the environment. Such feedbacks have to be systematically stored and analysed so entrepreneur's reaction can be timely and appropriate. They inspire an entrepreneur to foster innovation in all segments of business activities and processes.

This paper suggests that electronic marketing, its forms, and realisation tools directly influence three important characteristics, which are present in every type of successful entrepreneurship. They are fostering innovation, undertaking risks for business results, and proactive acting towards market, customers, and competition.

Perceiving an entrepreneur as an innovator is a consequence of his/her capability to recognise business opportunities that are offered in his/her environment and he/she transforms them into real business processes and organisational system that achieves successful business results [5]. An entrepreneur can create new concepts (intervention) and convert those new concepts (interventions) into business venture that is acceptable for the market. In this paper the hypothesis that different forms of electronic marketing assist an entrepreneur in generation of ideas, interventions, and then in their practical verification is set. That hypothesis is visualised and identified as H1.

Proactive action is another key characteristic of an entrepreneur. Proactivity is inclination of an entrepreneur to influence changes in the environment. Persons that have such characteristics have bigger possibility to become entrepreneurs. Electronic marketing enables an entrepreneur to get deep insight into micro and macro environment and therefore the second hypothesis (H2 in Figure 1) that forms of electronic marketing positively influence entrepreneur's proactive engagement is set.

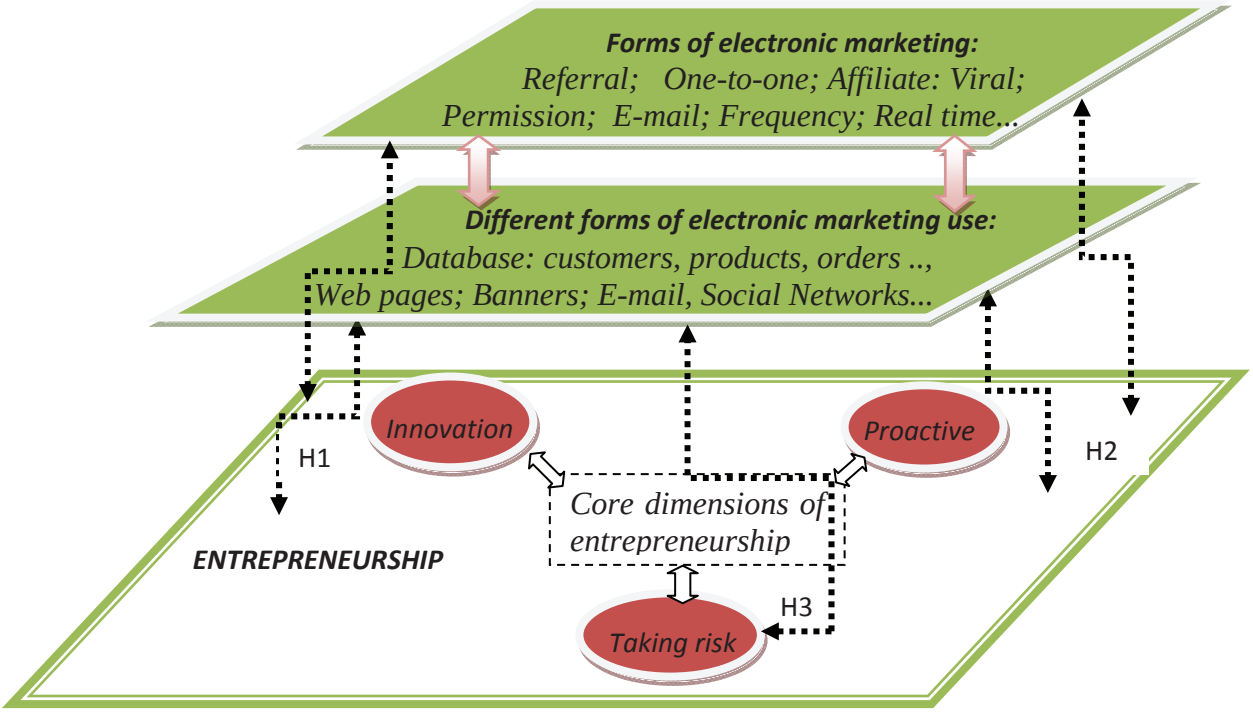


Figure 1: Influence of electronic marketing to core dimensiones of entrepreneurship

Business activity is exposed to a great number of different risks. It is hard to list all the risks and it is even impossible to predict them. Some of the risks are changes in prices of raw materials, energy, transport (change of input prices), interest rates, lowering of competition products' price, decrease in aggregate demand, occurrence of substitutes, risks of floods, earthquakes, fires, loss of business reputation, foreign currency risk etc. An entrepreneur accepts all the risks and has to manage them.

Electronic marketing increases awareness of an entrepreneur, and increase in the amount of accurate and concise information stimulate an entrepreneur to undertake risk and manage it (H3 in the Figure 1).

Leadership is one of entrepreneur's core dimensions. It is an entrepreneur's capability to influence other people behaviour and directs that behaviour towards set aim of organisational system functioning [4].

3. Research methodology

It is possible to identify electronic marketing influence on key entrepreneurship dimensions in transition countries like Bosnia and Herzegovina using carefully created questionnaire with important questions related to electronic marketing and entrepreneurship. Besides that, it is also important to ensure representativeness of a sample. Entrepreneurs of different sociodemographic characteristics such as gender, age, education, average monthly income, and geographical arrangement in the Federation of Bosnia and Herzegovina were selected as a sample so that proportion of chosen characteristics in sample "meet" proportion of those characteristics in population (basic set). A questionnaire as an instrument to conduct a survey is made of range of closed type questions (questions with offered answers in advance) and it has three parts:

1. Introduction
2. Questions about sociodemographic characteristics of respondents (taking care not to ask those data that endanger respondents' anonymity)
3. Questions about electronic marketing and entrepreneurship.

The second step is selection of respondents from the basic set. 2000 questionnaires were sent and 55 were filled in.

3.1. The research results

The methodology in this paper is based on principal component analysis and R programming language. At the same time R denotes three things: data analysis software, calculator and programming language.[227]

3.1.1. Business intelligence in analysis of electronic marketing influence on entrepreneurship

In analysis of electronic marketing influence on entrepreneurship (key entrepreneurship dimensions) methods of multi-variant statistics will be used as a part of data mining and business intelligence whose aim is to create accurate, concise, and timely information.

3.1.1.2. Analysis of principal components in business intelligence system

Reduction of data and their analysis are the basic aim of principal component analysis. It interprets the matrix structure of variants and co-variants sets of original variables using lower number of their linear combinations. Variability of the whole system is described with some ***n*** number of input variables but great part of whole variability can be described with lower number of p principal components (p<n). Principal component analysis is a statistical method that belongs to the multivariate analysis [2]. Its essence is reducing the size of a large data set or transformation of the initial data set, which represents vector patterns in a new set of vector patterns with a lower number of dimensions. Formally, the main idea of principal component analysis shows the following: a set of n-dimensional vector samples $X = \{x_1, x_2, x_3, ..., x_n\}$ can be transformed into a new set $Y = \{y_1, y_2, y_3, .., y_n\}$ of the same size [1] but y has the property that its largest information content stored in the first few dimensions.

[227] R STARTED AS A PROJECT BY ROSS IHAKA AND ROBERT GENTLEMAN AT THE DEPARTMENT OF STATISTICS UNIVERSITY OF AUCKLAND, NEW ZEALAND, DURING 1990S. R COSTS NOTHING AND IS COMPLETLY FREE. TO INSTALL R ON YOUR COMPUTER VISIT THE SITE 1. HTTP://CRAN.R-PROJECT.ORG/MIRRORS.HTML AND CHOOSE THE NEAREST MIRROR.

Suppose that given data matrix X with **n** rows and **p** columns is as follows:

$$X = \begin{vmatrix} x_{11} & \dots & x_{1p} \\ \dots & \dots & \dots \\ x_{n1} & \dots & x_{np} \end{vmatrix}$$

The rows represent observations (in our example the respondents' answer in survey) and the columns variables (in our example, the values of answers on the questions). Covariance matrix is calculated from X matrix [1]:

$$C = \frac{1}{n-1} X^T X = \frac{1}{n-1} * \begin{vmatrix} \sum_{i=1}^{n} x_{i1} x_{i1} & \dots & \sum_{i=1}^{n} x_{i1} x_{ip} \\ \dots & \dots & \dots \\ \sum_{i=1}^{n} x_{ip} x_{i1} & \dots & \sum_{i=1}^{n} x_{ip} x_{ip} \end{vmatrix} = \begin{vmatrix} c_{11} & \dots & c_{1p} \\ \dots & \dots & \dots \\ c_{p1} & \dots & c_{pp} \end{vmatrix}$$

Covariance matrix C is symmetric. New variables Y_i are linear combinations of the original variables X_i:

$$Y_i = a_{i1}X_1\ a_{i2}X_2 + \dots + a_{ip}X_p\ ; \qquad i = 1,2,\dots p.$$

New variables Y_i are derived in decreasing order of their importance. These are called principal components. The next step is to calculate their eigenvalues λ and eigenvectors **e** of the matrix C and then solve the following equation:

$$A * e = \lambda * e\ .$$

Eigenvalues λ of the matrix are sorted in descending order: $\lambda_1 \geq \lambda_2 \geq \dots \lambda_n$. The aim is to present the data using a new set of mutually orthogonal coordinate (the new base). Each of these directions is the major component or its eigenvector.
Eigenvalues are variances, one for each own vector. Percentage of total variance explained by each component is:

$$\%p = \frac{\lambda_p * 100}{\sum_{p=1}^{n} \lambda_p}$$

The Kaiser's criterion will be used for the principal components: keep the principal components whose eigenvalues are higher than 1.

3.1.1.2. The principal components analysis in R language

R language is used for principal component analysis. "R is a free software environment for statistical computing and graphics. Together they provide a sophisticated environment for data mining, statistical analyses, and data visualisation"[228]. Unlike other programming languages is not necessary to declare variable in the R language because the type is ***determined automatically*** when variable is created with "<-" operator. This programming language's commands are intuitive and

[228] R STARTED AS A PROJECT BY ROSS IHAKA AND ROBERT GENTLEMAN AT THE DEPARTMENT OF STATISTICS UNIVERSITY OF AUCKLAND, NEW ZEALAND, DURING 1990S. TO INSTALL R ON YOUR COMPUTER VISIT THE SITE: HTTP://CRAN.R-PROJECT.ORG/MIRRORS.HTML AND CHOOSE THE NEAREST MIRROR.

easy to use. Therefore, we will immediately apply the statements of R language in the analysis of data collected through the questionnaire and stored in dataset called cAnEmPo.csv.

3.2. Detecting electronic marketing influence on entrepreneuship

The first thing that we will do to analyse our multivariate data will be to read it into R language, and to plot the data. We can read data into R language using the read.table() function. Our dataset contains twenty-two answers of respondents to the survey out of twenty-eight questions in total. Only those questions that are related to importance of entrepreneurship and electronic marketing for business success of organisational system, influence of electronic marketing on entrepreneur's decision on supplier selection, and acceptance of appropriate risk, and entrepreneur's commitment regarding products sales via electronic marketing are in focus in this part of analysis.

1. E-marketing attracts new customers and informs about competition behaviour (nK-Likert scale 1-5).
2. E-marketing is necessary for successful business result (pR-Likert scale 1-5).
3. E-marketing is necessary for new suppliers finding (nD-Likert scale 1-5).
4. References listed on their website influence selection of new suppliers (rD-Likert scale 1-5).
5. E-marketing is necessary to increase the number of suppliers (bD-Likert scale 1-5).
6. E-marketing is necessary for cooperation with others in product designing and development (sD-Likert scale1-5).
7. Potential availability of confidential business information to competition is a barrier to an entrepreneur to purchase materials/products via e-marketing (bI-Likert scale 1-5).
8. Insecurity related to solving possible disputes prevents an entrepreneur to purchase materials/products via electronic marketing (sM-Likert scale 1-5).
9. Low number of suppliers on electronic market is a barrier to an entrepreneur to purchase materials/products via electronic marketing (mD-Likert scale 1-5).
10. Insecurities related to information about supplier and his/her identity is a risk that an entrepreneur cannot accept in purchase of materials/products via electronic marketing (smD-Likert scale 1-5).
11. Insecurities related to quality of contract on delivery of materials/products concluded with a supplier via electronic marketing are the risks that an entrepreneur cannot accept (smU-Likert scale 1-5).
12. Insecurity related to supplier’s possibility to fulfil all requirements from purchase contract often prevents an organisation to purchase materials/products via electronic marketing (smR-Likert scale 1-5).
13. E-marketing is necessary for new customers finding (nK-Likert scale 1-5).
14. Customer’s decision to purchase a product/service is influenced by website appearance and listed references on it about organisation and quality of its products/service (kW-Likert scale 1-5).
15. E-marketing is necessary to increase the number of customers (bK-Likert scale 1-5).
16. E-marketing makes distribution channels shorter for an entrepreneur (kP-Likert scale 1-5).
17. Price available via e-marketing influences product/service purchase (cS-Likert scale 1-5)?
18. How much does information available via e-marketing influence entrepreneur’s behaviour and his/her relationship with customers (pP-Likert scale 1-5)?
19. How much does information available via e-marketing influence entrepreneur’s decision about product/service prices (cP-Likert scale 1-5)?
20. How much does information available via e-marketing influence entrepreneur’s decision about change of organisation and its improvement (oP-Likert scale 1-5)?
21. How much does e-marketing impact entrepreneur’s permanent learning and innovation of processes in an organisation (iP-Likert scale 1-5)?

22. E-marketing is necessary for an entrepreneur to share operational information to suppliers (dP-Likert scale1-5)?

There is certain level of connection and redundancy between variables. Questionnaire cannot eliminate correlation between variables in advance. Therefore, using special methodological procedure, analysis of principal components, the components that are not in correlation are extracted (angle cosine between two variables is zero i.e. mutually they close an angle of 90%), and variables linked with components that are the most important for each global component.

The following three hypotheses are set:
H1: e-marketing influences entrepreneur's innovativeness.
H2: e-marketing influences proactive activity of an entrepreneur.
H3: e-marketing influences entrepreneur's readiness to take the risk of business venture.

Data with respondents' answers are stored in C://cAnEmPo.csv database [229]. Firstly, data are loaded in emPC variable:

```
>emPC<-read.table("C://cAnEmPo.csv",header=T,sep=";")
>emPC
     eK pR nD rD bD sD bI sM mD smD smU smR nK kW bK kP cS pP cP oP iP dP
1     4  2  2  2  2  2  2  2  3  3     3     3  3  2  2  2  2  2  2  2  3  3
2     3  2  2  2  2  2  2  2  3  3     3     3  3  2  2  2  2  2  2  2  3  3
.....................................................................................................
166  3  2  2  2  2  2  3  2  3  3     5     5  5  2  2  3  2  2  2  2  5  5
167  4  2  2  2  2  2  2  2  3  3     3     3  3  2  2  2  2  2  2  2  3  3
```

The first step in data analysis is to test internal consistency of questions in the questionnaire using Cronbach alpha reliability coefficient. It is sufficient to load *psych* in R language and then call ***alpha()*** function as follows:

```
> library(psych)
> alpha(emPC)
Reliability analysis
Call: alpha(x = emPC)
raw_alpha std.alpha G6(smc) average_r S/N   ase    mean   sd
     0.84      0.84      0.88      0.19   5.3   0.018  2.7 0.24
 lower alpha upper     95% confidence boundaries
0.81 0.84 0.88
```

Alpha value is 0.84 that can be accepted as confidence boundary (Cronbach alpha<0.5 is inacceptable).

Those twenty-two variables define influences of electronic marketing on key entrepreneurship dimension. Number of variables could also be higher.

We are interested in entrepreneurship's place in principal components' area, lower number of dimensions on which this twenty-two dimensional area can be reduced. New hypothesis: "Twenty-two variables can be reduced to lower number of components that retain the most important information on e-marketing influence on entrepreneurship" can be derivated from the main paper's hypothesis. The results of principal components' analysis are more realistic if the values of all

[229] DATA ARE STORED IN DATABASE C://CANEMPOKON.CSV ON ROOT DISC DIRECTORY.

variables are standardised. Standardised values are calculated in that way that arithmetic mean is reduced for variable value and obtained result is divided with standard deviation[230].

In R language it is enough to call function for emPC variable standardisation and round the result on one decimal place in order to simplify presentation:

```
standardisedValues<-round(as.data.frame(scale(emPC[1:22])),1)
standardisedValues[1:2,]
     eK  pR  nD  rD  bD  sD  bI  sM  mD  smD  smU  smR  nK  kW  bK
1   1.1 -0.1 -0.7 -0.4 -0.3 -0.5 -0.4 -0.2 -0.6 -0.7  -0.8  -0.7  -0.8 -0.4 -0.5
2  -0.9 -0.1 -0.7 -0.4 -0.3 -0.5 -0.4 -0.2 -0.6 -0.7  -0.8  -0.7  -0.8 -0.4 -0.5
                                                      kP  cS  pP  cP  oP  iP  dP
1                                                   -0.9 -0.6 -0.2 -0.5 -0.2 -0.9 -0.9
2                                                   -0.9 -0.6 -0.2 -0.5 -0.2 -0.9 -0.9
.....
166 -0.9 -0.1 -0.7 -0.4  3.3 -0.5 -0.4 -0.2 -0.6 -0.7  0.8 -0.7  1.0 -0.4  2.0
167 -0.9 -0.1  1.4 -0.4 -0.3  2.0 -0.4 -0.2 -0.6  1.2  0.8  2.5 -0.8 -0.4  2.0
                                                      kP  cS  pP  cP  oP  iP  dP
                                                236  1.1 -0.6 -0.2  2.2 -0.2  0.7  0.4
                                                237 -0.9  1.8 -0.2 -0.5 -0.2  2.2  1.7
```

The standardised values of variables have the standard deviation 1 and the mean 0. The total variance is therefore equal to the number of variables.

The next step in principal component analysis is calculation of covariance using the next statement in R language (all the values are rounded to two decimal points):

```
> covaC<-round(head(cov(standardisedValues)),2)
> covaC
      eK   pR   nD   rD   bD   sD   bI   sM   mD  smD  smU  smR
eK  1.00 -0.10 -0.50 -0.31 -0.21 -0.44 -0.39 -0.16 -0.32 -0.39 -0.34 -0.39
pR -0.10  1.01 -0.08  0.10 -0.03  0.08  0.10 -0.02  0.14 -0.09 -0.09  0.01
nD -0.50 -0.08  1.00  0.04  0.11  0.23  0.01  0.10  0.22  0.26  0.43  0.29
rD -0.31  0.10  0.04  0.96 -0.03 -0.06  0.28  0.02  0.16  0.21  0.21  0.22
bD -0.21 -0.03  0.11 -0.03  0.99  0.19  0.03 -0.04  0.04  0.02  0.02  0.17
sD -0.44  0.08  0.23 -0.06  0.19  0.98 -0.11  0.08 -0.02  0.16  0.05  0.13
      nK   kW   bK   kP   cS   pP   cP   oP   iP   dP
eK -0.41 -0.21 -0.28 -0.65 -0.27 -0.05 -0.24 -0.13 -0.66 -0.67
pR -0.03 -0.04 -0.06  0.12 -0.06 -0.02 -0.05  0.25  0.08  0.11
nD  0.24  0.13  0.12  0.36  0.26 -0.07  0.19  0.23  0.32  0.41
rD  0.10  0.17  0.26  0.17  0.02 -0.08  0.23 -0.01  0.33  0.35
bD  0.07  0.22  0.07  0.15  0.00  0.10  0.05  0.22  0.28  0.33
sD  0.28  0.05  0.15  0.31  0.29  0.21  0.11  0.04  0.32  0.37
```

In principal component analysis we need to calculate the eigenvalues and corresponding eigenvectors:

```
> eigenvalues<-eigen(cov(standardisedValues))
> eigenvalues
$values
 [1] 5.6558279 1.8365003 1.6468618 1.5342840 1.3264665 1.1929127 1.0510249
 [8] 1.0269720 0.8924429 0.7879108 0.7481970 0.6761335 0.6219179 0.6023417
[15] 0.5201756 0.4571252 0.3637430 0.3447488 0.3135597 0.2745638 0.1875022
```

[230] STANDARDISED VALUES HAVE STANDARD DEVIATION 1AND ARITHMETIC AVERAGE 0.

[22] 0.1265413
> eigenvectors<-eigen(cov(standardisedValues))
>round(eigenvectors,2)

The following matrix, whose columns are principal components, shows the results of previous R language order

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8
eK	-0,35	0,09	-0,11	0,08	-0,06	-0,19	0,04	-0,01
pR	0,03	-0,16	-0,03	-0,29	-0,50	0,43	0,26	0,18
nD	0,23	0,15	0,01	-0,25	0,22	-0,16	-0,14	0,14
rD	0,16	-0,21	-0,27	0,22	-0,09	0,11	0,28	-0,15
bD	0,12	-0,12	0,30	-0,16	-0,24	-0,45	-0,20	-0,21
sD	0,17	-0,12	0,30	-0,16	-0,24	-0,45	0,20	-0,03
bI	0,18	-0,37	-0,21	0,14	-0,01	0,11	-0,08	0,24
sM	0,05	-0,25	-0,02	-0,11	0,44	0,26	-0,31	0,27
mD	0,20	0,27	-0,20	0,16	-0,36	0,16	-0,14	0,11
smD	0,25	0,42	-0,12	0,18	-0,03	0,13	0,03	0,15
smU	0,26	0,24	-0,32	-0,06	0,11	-0,14	-0,03	-0,02
smR	0,28	0,10	-0,19	-0,01	-0,07	-0,08	-0,25	-0,23
nK	0,20	0,22	0,28	0,27	0,01	0,17	0,04	0,28
kW	0,15	-0,23	0,12	0,33	-0,18	-0,31	-0,29	0,39
bK	0,18	-0,17	-0,01	0,30	-0,01	-0,28	0,27	0,13
kP	0,29	-0,14	0,07	-0,20	0,06	0,23	-0,20	-0,01
cS	0,17	0,34	-0,01	-0,10	0,16	-0,08	0,18	0,34
pP	0,04	0,13	-0,01	-0,10	0,16	-0,08	0,06	0,02
cP	0,17	-0,12	-0,10	0,08	0,29	-0,17	0,60	0,07
oP	0,09	0,02	-0,09	-0,47	-0,31	-0,27	0,16	0,35
iP	0,33	-0,23	0,10	0,03	0,00	0,05	-0,02	-0,30
dP	0,35	-0,12	0,05	-0,13	-0,06	-0,06	0,14	-0,28

The following three different methods can be used in order to decide how many components should be retained:

1. Screeplot function and mark the change in slope;
2. Kaiser's criterion where we retain components for which the variance is higher than 1 when principal component analysis was applied to standardised data;
3. Keep the number of components required to explain at least some minimum of total variance.

It is obvious that the change in slope occurs at the fourth component if we implement plot() function.

>displayPC<-prcomp(standardisedValues)
> plot(displayPC,type="l")

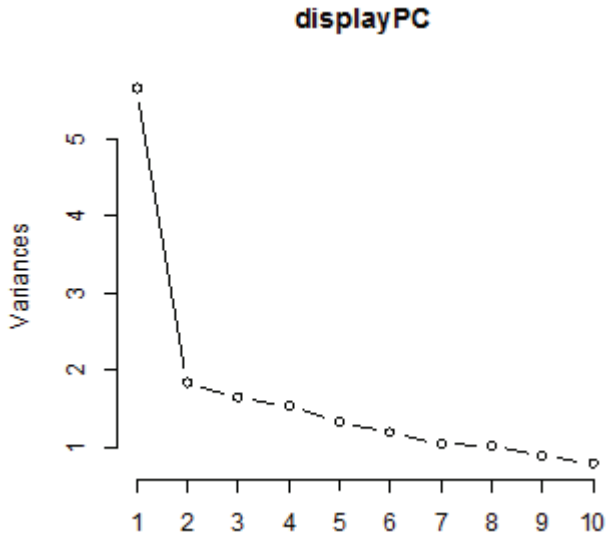


Figure 2.: Screeplot function and determination of number of components

Kaiser's criterion will be used. Variance's values of the first seven components are higher than 1 (5.66; 1.84; 1.65; 1.53; 1.33; 1.19; 1.05; 1.03). Therefore using Kaiser's criterion seven principal components will be kept. Loadings for the first seven components are eigenvectors.[231] The results are in form of matrix whose columns are loadings for each of seven principal components. Principal components (PC) are linear combination of variables' values:

PC1 = -0.35 * eK + 0.03 * pR + 0.23 * nD +...+ 0,20 * mD + 0.25 * smD + 0.26 * smU + 0.28 * smR+...+0.29 * k+....+ 0.33 * iP + 0.35 * dP

PC2 = 0.09 eK - 0.16 * pR +0.15 * nD - 0.21 * rD - 0.37 * bI – 0.25 * sM + 0.27 * mD + 0.42 * smD + ...+ 0.24 * smU + 0.22 * nK – 0.23 * kW +...+ 0.34 * cS +...

PC3 = -0.11* eK - 0.03 * pR +0.01 * nD +...+ 0.30 * bD + 0.30 * sD +... - 0.32 * smU + ...+ 0.28 * nK +...

PC4 = 0.08* eK - 0.29 * pR - 0.01 * nD +...+ 0.30 * bD + 0.30 * sD +... - 0.32 * smU + ...+ 0.28* nK +... - 0.47 * oP +...

PC5 = - 0.06 * eK - 0.50 * pR+ 0.22 * nD +...-0.24 * bD - 0.24 * sD +... + 0.44 * sM + ... -0.36 * mD +...+ 0.29 * cP - 0.31 *oP +...

PC6 = -0.19 * eK + 0.43 * pR - 0.16 * nD +... - 0.45 * bD - 0. 45 * sD +... + 0.26 * sM + ... -0.31 * kW – 0.28 * bK + 0.23 * kP +...- 0.27 *oP +...

PC7= -0.04 * eK + 0.26 * pR - 0.14 * nD + 0.28 * rD +... - 0.31 * sM +... - 0.25 * smR + ...- 0.29 * kW + 0.27 * bK +...+ 0.60 * cP +...

PC8= -0.1* eK + 0.18 * pR + 0.14 * nD +...- 0.21 * bD +... 0.27 * sM +... - 0.23 * smR + 0.28 * nK + 0.39 * kW +... + 0.34 * cS +...+ 0.35 * oP – 0.30 * iP – 0.28 * dP.

The first principal component has the highest loadings (in absolute value) for eK (-0.35; e-marketing attracts new customers and informs them), iP (0.33; e-marketing influences an entrepreneur to learn continually and innovate processes in an organisation), dP (0.35; e-marketing is necessary to an entrepreneur to share operational information with suppliers). Interpretation of the first principal component could be as follows: E-marketing stimulates ***innovativeness and continual communication with suppliers.***

The second principal component has the highest loadings (in absolute value) for bI (-0.37; availability of confidential business information to competition is a barrier to an entrepreneur in purchasing materials/products via e-marketing), smD (0.42; insecurity with regards to information

[231] The same result can be obtained implementing prcomp() function on standardised data set named ***stanVal.***

about supplier and his/her identity is a risk that an entrepreneur cannot accept in purchasing materials/products via electronic marketing), cS (0.34; price available via e-marketing influences product/service purchase). Interpretation of the second principal component is: E-marketing directs ***entrepreneur's attention towards purchase risk***. Insecurity of an entrepreneur with regards to information he/she receives via electronic marketing on materials and products' quality as well as about suppliers' references has the highest influence in the second principal component.

The third principal component has the highest loadings for bD (0.30; e-marketing is necessary to increase in number of suppliers), sD (0.30; e-marketing is necessary for cooperation with others in product designing and development), and smU (-0.32; insecurities related to quality of contract on delivery of materials/products concluded with a supplier via electronic marketing are the risks that an entrepreneur cannot accept).
An entrepreneur can accept the risk related to contracts he/she concludes with suppliers via electronic marketing, where e-marketing ensures increase in number of suppliers but also the cooperation that stimulates product's new design and development. The third principal component ***reflects e-marketing influence on entrepreneur's innovativeness and strengthening of cooperation with suppliers***.

The forth component has the highest loadings for bD (0.30; e-marketing is necessary to increase the number of suppliers), sD (0.30; e-marketing is necessary for cooperation with others in product design and development), smU (-0.32; insecurity with regards to information about supplier and his/her identity is a risk that an entrepreneur cannot accept in purchasing materials/products via electronic marketing). The fourth principal component reflects importance of ***cooperation between an entrepreneur and suppliers via e-marketing***, and that cooperation contributes increase in number of suppliers, new design and decrease risk in conclusion of contracts with suppliers (algebraic sign of loading factor for smU variable).

The fifth principal component has the highest loadings for pR (-0.50: e-marketing is necessary for successful business result), sM (0.44; insecurity, related to solving possible disputes, prevents an entrepreneur in materials/products purchasing via electronic marketing), mD(-0.36; low number of suppliers on electronic market is a barrier to an entrepreneur to purchase materials/products via electronic marketing), oP(-0.31; information available via e-marketing influence entrepreneur's decision to change organisation and improve it).
The fifth principal component gives e-marketing neither key role for total business result nor engages e-marketing more in organisational structure change. It is expected since e-marketing increases communication power and strength of organisational system with environment. Its influence on business results and organisational structure changes is not indirect but it spreads through strengthening of connections with company's environment. The fifth principal component reflects ***direct influence of e-marketing on company's operations*** and its business result.

The sixth principal component has the highest loadings for pR (0.43: e-marketing is necessary for successful business result), bD (-0.45; e-marketing is necessary to increase the number of suppliers), sD(-0.45; e-marketing is necessary for cooperation with others in product design and development), kW(-0.31; customer's decision to purchase a product/service is influenced by website appearance and listed references on it about organisation and quality of its products/service).

It is important to observe algebraic sign of certain factors of loadings in the sixth principal component. It reflects the fact of ***same direction of e-marketing influence*** on increase in number of suppliers, and customer's decision to purchase a product/service is influenced by website appearance, and listed references on it about organisation, and quality of its products/service.

Again, that direction is opposite to business results on which e-marketing indirectly influences (the fifth principal component).

The seventh principal component has the highest loadings for sM (-0.31; insecurity related to solving possible disputes prevents an entrepreneur to purchase materials/products via electronic marketing) and cP (0.60; information available via e-marketing influence entrepreneur's decision about product/service).

This component reflects entrepreneur's risk ***acceptance*** in possible disputes and influence of e-marketing on pricing methods and price highness.

The eighth principal component has the highest loadings for kW (0.39; customer's decision to purchase a product/service is influenced by website appearance and listed references on it about organisation and quality of its products/service) and cS (0.34; price available via e-marketing influences product/service purchase), oP (0.35; information available via e-marketing influence entrepreneur's decision about change of organisation and its improvement), iP (-0.30; e-marketing impacts entrepreneur's permanent learning and innovation of processes in an organisation).

This component reflects influence of e-marketing on ***permanent learning and innovation of processes*** in an organisation where e-marketing does not have direct and dominant influence on organisational structure change.

Standardised values can be calculated multiplying every variable's loading for an individual principal component (characteristic vectors' matrixes) and standardised values.

New standardised values (scores) can be calculated implementing next statement in R language (formed by multiplying the loadings with the original data):

```
dm=data.matrix(standardisedValues)
z=eigenvectors
eV=NULL
eV<- matrix(unlist(eigenvectors), ncol = 22, byrow = TRUE)
evR=subset(eV[1:22,])
evT=t(evR)
PC<-dm %*% evT
>round(PC,1)
          [,1]  [,2]  [,3] [,4] [,5] [,6]  [,7] [,8]  [,9] [,10] [,11] [,12] ... [,18] [,19] [,20] [,21] [,22]
   [1,]  -1.7  2.9  0.2 -0.1  0.1  0.0  0.2 -0.1  0.1   0.0   0.0   -0.1  ...  0.0   -0.1  0.0    0.0    0.1
  .....
[166,]  -2.6 -2.9  1.1 -0.9  0.2 -0.2 -0.6  1.2  1.4  -0.7  -2.0  -1.7 ...  0.4    0.0   0.4   0.7   -0.2
[167,]  -1.7  2.9  0.2 -0.1  0.1  0.0  0.2 -0.1  0.1   0.0   0.0  -0.1  ...  0.0   -0.1   0.0   0.0    0.1
```

The values of the principal components are stored in the matrix with the principal components, where the first column in the matrix contains the first principal component, the second column the second component, and so on.

Thus, in our example, " PC[,1] " contains the first principal component (***innovativeness and permanent communication with suppliers***), and " PC[,2] " contains the second principal component (*e-marketing* ***directs entrepreneur's attention on purchase risk****).*

We can make a scatterplot of the first and second principal components, by typing:

```
>plot(PC[,1], PC [,2])
>text(PC [,1], PC[,2], emPC$pR, cex=0.5, pos=3, col="blue")
```

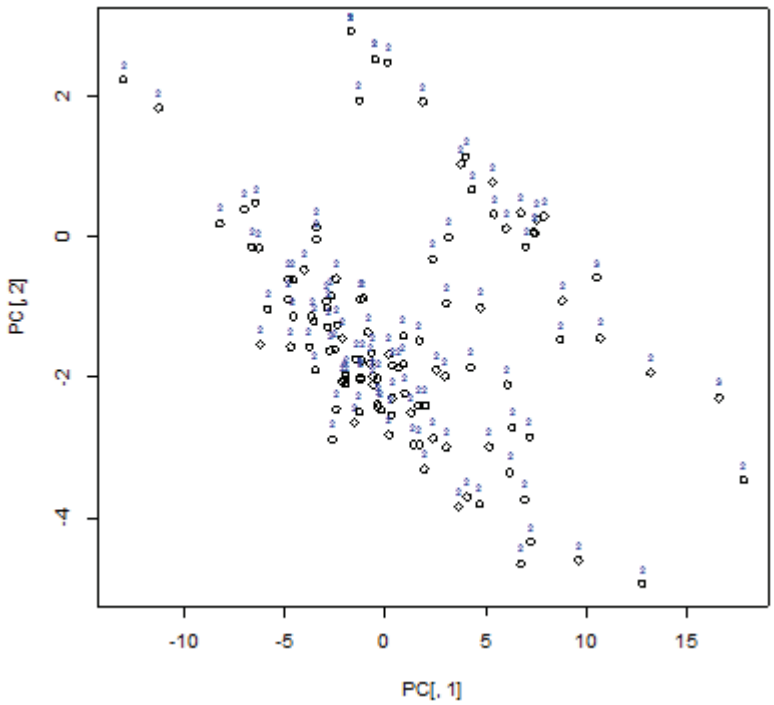


Figure 3: Scatterplot of first PC[,1] and fourth PC[,2] principal component

The scatterplot displays the first principal component on the x-axis, and the second principal component on the y-axis. It can be seen in the scatterplot that there is regularity regarding the values of these two principal components. If the values of the first principal components are increased, then the values of the second component are decreased. In other words, if innovativeness and permanent communication with suppliers is improved then entrepreneur's risk is decreasing. These eight components retain the most of information provided in the questionnaire about e-marketing influence on entrepreneurship. The first is that e-marketing stimulates innovativeness and permanent communication with suppliers; the second component is that e-marketing directs entrepreneur's attention to purchase risk; the third component reflects e-marketing influence on entrepreneur's innovativeness and strengthening of cooperation with suppliers; the fourth reflects the importance of cooperation between an entrepreneur and suppliers via e-marketing; the fifth reflects direct e-marketing influence on company's operations and its business result; the sixth reflects the fact of same direction's e-marketing influence on increase in number of suppliers, customers' commitment for product or service purchase based on website appearance and increase in number of suppliers; the seventh reflects entrepreneur's risk acceptance in possible disputes and e-marketing influence on pricing and price highness; and the eighth reflects e-marketing influence on permanent learning and processes' innovativeness in an organisation where e-marketing does not have direct and dominant influence on organisational structure change.

Conclusion

The research has confirmed the hypothesis that electronic marketing influences entrepreneurship i.e. its three key dimensions: proactivity, innovativeness, and readiness to accept the risk.

The principal determinants of electronic marketing influence on entrepreneurship are derived from twenty-two variables and they are the following: improvement of innovativeness and permanent communication with suppliers; directs entrepreneur's attention on purchase risk, direct e-marketing influence on company functioning and its business result; e-marketing influence on increase in number of suppliers; customer's commitment to purchase a product or service based on website appearance; entrepreneur's risk acceptance in possible disputes and e-marketing influence

on pricing methods and price highness; and needs of permanent learning and process innovativeness in an organisation where e-marketing does not have direct and dominant influence on organisation structure's change. The research follows "natural and logical" series of activities that are part of business intelligence, which is a process of information creation out of data using appropriate data mining methods. Analysis of principal components is used in this paper. It is based on respondents' answers, presented in a form of dataset that reduces multidimensional area on eight key components where important information is kept. Functions and R programming language packages were used in empirical review of the set hypotheses. It showed excellent application power and strength in results' visualisation.

References

1. A.L. Yuille (2004): *Dimension Reduction & PCA*, Department Statistics UCLA.

2. Bijakšić, S., Markić, B., (2014) *The Motivation Factors of Sales Personnel in Financial Institution*s, Chinese Business Review, David Publishing Company, ISSN 1537-1506, CBSN 270B0069, Volume 13, No. 4, pp. 259-271.

3. Bijakšić, S., Bevanda, A., Markić, B., (2014) Marketing i metrika, Napredak Glavna podružnica Mostar, Mostar.

4. Buble, M., *Modeli menadžmenta inherentni poduzeću 21. stoljeća*, 3rd Regional Meeting & International Scientific Conference of Management Departments, Book of Proceedings. University of Dubrovnik, pp. 1-37.

5. Chanthima Phromket et al. (2013), Effects of e*ntrepreneurial orientation and market information capabilities on competitive advantage and firm growth of* SMEs in Thainland, Journal of International Management Studies; Vol. 13 Issue 2, p 47.

6. Levie, J., Autio, E., (2011), *Regulatory burden, rule of law, and entry of strategic entrepreneurs: an international panel study*, Journal of Management Studies 48 (6), 1392–1419.

7. Onwumere J., Onyebu C.M., Orji M.A. (2014), *Assessing the effect of organizational and marketing innovations on medium scale food wholesale marketing firm Abia State, Nigeria*, International Journal Small business and entrepreneurship Research, Vol2. No2 pp28-43.

8. Ramsey, E (2012), *Entrepreneurial marketing in SMEs: the key capabilities of e-CRM*, Journal of Research in Marketing and Entrepreneurship. v74, n6, 61 (17).

9. Saher H. EL-Annan (2013), *Innovation, proactive, and vision are three integrated dimensions between leadership and entreprenuership*, European Journal of Business and Social Sciences, Vol. 1, No. 12, pp 148-163.
10. Skendrović, K., Karabatić, M. (2014), *Concentration of Entrepreneurs as Response to Business Challenges and Risks*, Collegium Antropologicum, Vol. 38 Issue 1 Supp, p 205.

11. Ziyae et al. (2014), *The deployment and internationalization speed of e-business in the digital entrepreneurship era,* Journal of Global Entrepreneurship Research, http://www.journal-jger.com/content/4/1/15.

PART SEVEN:
FINANCE, FINANCIAL MARKETS, ACCOUNTING AND RISK MANAGEMENT

THE EFFECT OF MARKET LIQUIDITY ON THE COMPANY VALUE

Tajana Serdar Raković, MSc[*]

Abstract

Market liquidity as an important factor of making investment decisions at the capital market, provides security for the investors and reduces the risk of not being able to close their positions without significant loss of financial assets. Less liquid market brings higher yields due to greater price volatility, but withdraws a greater risk. Liquidity is considered a primary factor in the development of capital markets. Generally, market liquidity is based on the existence of a great number of buyers and sellers at any time, the possibility of carrying out subsequent transactions at the same price as the previous one and the market ability to absorb buying and selling the larger quantities of the securities without significantly affecting the price.

In theory, there are strong evidences suggesting market liquidity has a positive impact on performance, and thus on the company value. Companies with shares listed on liquid markets and generally with more liquid shares, generate higher returns on assets and have more equity in the capital structure. One of the ways to measure the market liquidity is over the impact of the amount of traded stocks on the market price. Researches made in emerging markets showed that there was an 80% correlation between the spread of purchasing and selling prices and market liquidity. With the reduction of difficulties in trading related to prices, volume and market capitalization, the level of market liquidity increases. As the cash flow and control rights of the company are essentially determined by company shares, the marketability of shares will undoubtedly play a decisive role in corporate governance, assessing the value and performances of the company.

The purpose of this paper is to show that that market liquidity has a positive impact on the performance and operating profitability of the companies, and thereby on the value of the companies. Empirical analysis proved that companies with more liquid shares, traded on more regular basis, had higher operating income which was increasing business value. Another basis for the growing performance of the companies with liquid shares is by increasing the incentive effects of managerial contract founded on performance on more liquid markets. Information feedback that managers and other shareholders are getting over the market price of shares is responsible for the better performance of companies whose shares are quoted on the more liquid capital markets.

***Key words**: market liquidity, performances, company value, market price, shares*

[*] Faculty of Economics, University of Banja Luka, tajana.serdar@efbl.org

Introduction

Market liquidity as an important factor of making investment decisions at the capital market, provides security for the investors and reduces the risk of not being able to close their positions without significant loss of financial assets. Considering the complexity of the liquidity term, there is more than one definition of liquidity. Generally, liquid market can be described as one where participants can quickly accomplish large transactions with no significant impact on the price. How can the liquidity on the capital market be measured?

One way to measure market liquidity is over the impact of the quantity of shares which were traded on the market price, as Pástor and Stambaug (2003) demonstrated in their study. There is a correlation between market liquidity and shares yields (Amihud & Mendelson, 1986). Liquidity variations are correlated with monetary policy and have an effect on shares and bonds (Chordia, Sarkar & Subrahmanyam, 2005). The liquidity of capital markets is defined by four aspects (von Wyss, 2004):

- Trading time (the ability to perform the transactions immediately and at the prevailing price);
- Density / compaction (capability of simultaneous purchase and sale at approximately equal price);
- Depth (possibility of buying or selling certain assets without affecting the price);
- Elasticity / resistance (the ability of simultaneous purchase or sale without a significan influence on the price, taking into account not only the volume but also the elasticity of supply and demand).

These dimensions of liquidity can be observed at five different levels of liquidity:

- Trading possibility;
- Possibility of buying and selling sertain amount of securities with an impact on the price;
- Possibility of buying and selling sertain amount of securities without affecting the price;
- Possibility of simultaneous buying and selling of securities at approximately equal price;
- Possibility of immediate trading.

Liquidity is considered a primary factor in the development of capital markets. Companies with shares listed on liquid markets and generally with more liquid shares, generate higher returns on assets and have more equity in the capital structure. Researches done in the emerging markets showed that there is a correlation of 80 percent between the range of bid and offer prices and market liquidity (Levy Yeyati, Schmukler & Van Horen, 2007. With decrease in trading difficulties related to prices, volume and market capitalization, the level of market liquidity increases (Lesmond, 2005, p. 37). Thus, a liquid market is the one where participants can quickly accomplish large transactions with no significant impact on the price.

The paper focuses on the hypothesis that market liquidity has a positive impact on the performance and operating profitability of the companies, and thereby on the value of the companies. In order to confirm this conclusion, the measures of market liquidity have been analysed, and the overview of previous research and studies of this subject has been given. Then we have specified the methodology for empirical analysis we used in our work, presented and discussed research results and provided appropriate attitudes and conclusions of researh topic.

1. Measures of market liquidity

Liquidity measures can be classified into two cathegories: one-dimensional and multidimensional, depending on the number of variables covered. One-dimensional liquidity measures are divided into four groups (Benić and Franić, 2008):

1. *Measures for analysing the size of the company.*

The market capitalization expresses the company value as the multiplicator of the number of issued shares (Si) and their market price (Pi): $Mcap_i$ = Si x Pi. Number of shares actually available on the market can be used for more precise liquidity measurement (Free Float).

2. *Measures that represent the volume (quantity of shares) per time unit.*

a) The *volume* represents the number of shares traded in a certain period of time - high volume withdraws higher market liquidity.

b) *Turnover* is the multiplicator of price (pi) and the quantity of shares in the transaction (qi) in a certain time interval (t):

$$\mathrm{Tn} = \sum_{i=1}^{Nt} \mathrm{p_i} \times \mathrm{q_i};$$

c) Turnover is a more significant measure of volume because it allows comparison of more different shares. When turnover is analyzed together with a market capitalization, the result is *trade turnover* that determines how many times securities have changed owners:

$$\text{Trade turnover} = \mathrm{Tn} / \mathrm{Mcap}.$$

d) *Indicator of average daily change in value of the market index* shows volatility of the market. The lower value of this indicator (less price change) means higher liquidity.

e) *The ratio of the average daily change of the index and the trade turnover* shows the impact of turnover and market capitalization on the volatility of prices. (Sarr & Lybek, 2002). The lower ratio is, liquidity and market efficiency is higher. If this indicator is low, the market depth is not satisfactory, respectively high-value transactions affect the price because there are not enough large and numerous orders with low price range.

3. *Measures of liquidity associated with time* - show frequency of market transactions.

High frequency of transaction execution and shorter time between transactions suggest that the market is liquid. The *number of orders* in a certain time period is also a measure of liquidity belonging this group of measures, which is important in comparing the situation in several capital markets.

4. *Measures associated with the spread (the difference between bid and selling price)* –show amount of costs associated with trading.

Absolute or quoted spread is the difference between the highest bid and the lowest selling price. This spread is always positive under the condition the trading is regular. The lower limit of the spread is minimal money unit permitted on the capital market. Market liquidity is higher as the measures of spread are lower.

Multi-dimensional liquidity measures are the following (Benić and Franić, 2008):

1. *Amivest liquidity ratio* relates securities trading volume in certain period with the percentage of price change in absolute terms:

$$\mathrm{LR1_t} = \frac{\mathrm{Tn_t}}{\mathrm{Ir_t I}} = \frac{\sum_{i=1}^{N} \mathrm{p_i} \times \mathrm{q_i}}{\mathrm{Ir_t I}}$$

Meaning: $LR1_t$ - liquidity ratio in time, r_t - percentage of price change (yield), expressed in absolute terms, Tn – trade, N- number of transactions in the time period t, p_i – price, q_i - quantity of securities in the transaction.

Higher ratio means that the market is possible to absorb a larger price changes viz. market is more liquid.

2. *Amihud illiquidity measure* shows the percentage of price change in absolute terms and the trading volume (Amihud 2002, according Benić and Franić, 2008):
$$ILLIQ_t = \frac{1}{LR1_t} = \frac{\mathrm{Ir_t I}}{\mathrm{Tn}}$$

This indicator analyzes several measures of liquidity, respectively price change, trading volume and the impact of trading volume on the price. It shows the influence of one KM (or dollar) on the percentage of daily price change in the market. A lower value of measure indicates a higher market liquidity, and vice versa.

In analysing the liquidity of certain market it is necessary to apply more measures in order to gain the right information of existence of liquidity and the degree of market illiquidity. Companies with more liquid shares traded on more regular basis have higher operating income, which is ultimately increasing company value. Furthermore, performances of the companies with liquid shares are growing by increasing the incentive effects of managerial contract founded on performance on more liquid markets.

3. The overview of previous research on market liquidity

The effect of liquidity on the performances of the company is in the focus of causal theories based on agency costs. One of the most important representatives of these theories is Maug (1988), who believes that liquid markets support effective corporate governance. Market liquidity can not be considered separately from trading with private information on the capital markets nor from monitoring of companies by large investors in order to realize capital gains on shares. Liquid capital markets contribute to resolving the lack of information. In less liquid market large investors will choose a smaller stake to diversify risk. According to Edmans (2009), the majority shareholders in the market behave as informed participants, not as control subjects and their added value of majority shareholders should depend on liquidity. Reducing market liquidity and increasing the share of majority shareholders control imply that the stakes of large shareholders become less liquid. Although these two actions reduce the liquidity of large blocks of shares, they have the opposite effect on the monitoring - reducing market liquidity decreases monitoring. (Maug, 1998, p. 68). The growth of the required control stake forces majority shareholders to accumulate a larger block of shares in order to maintain control which means they need to take a higher level of monitoring in the future.

The expected profit increase of monitored companies is always included in the share price. The only source of profit from the monitoring for large investors arises from the uncertainty of the final payment. Profit comes from an increase in volatility, not from change in the refund amount. If capital markets are less liquid, large shareholders will be less engaged around monitoring. In order to avoid the obligation for monitoring, they will diversify their portfolio that is they will possess smaller stakes in several companies. Liquid share market leads to greater monitoring because it allows the investor to cover the costs of monitoring through trading based on relevant information. When a large shareholder can choose between monitoring and acquisition as various forms of intervention in companies that operate with loss, they will prefer: less expensive method if the market is not liquid and more effective method if the capital market is liquid.

Liquid markets increase the possibility of successful corporate restructuring in two ways. As the first, liquid markets allow shareholders to realize gains from monitoring through informed trading, and secondly, they ensure application of the restructuring method because of its efficiency, not lower price (Maug, 1998, p. 89). Rent which large shareholders draw from the company monitoring can be reduced if larger packages of voting rights are required, forcing large shareholders to concentrate their stakes (large stakes are therefore less liquid). Higher demands for majority control increase initial stakes, reduce rents and enhance the tendency to monitoring.

In theory there are strong evidences suggesting that market liquidity affects positively the performance and thus the value of the company. Since the shares are determinant which is crucial for determining cash flow and control rights, marketability of shares will undoubtedly have a decisive role in corporate governance, value appraissal and performancs of the company. Liquid markets allow purchase of a large or a control block of shares, reduce opportunism of managers, promote a more efficient system of managers remuneration and stimulate trade between informed investors thereby improving investment decisions through more informative share prices (Khanna & Sonti, 2004).

Numerous papers have been supporting the claim that market liquidity has effect on the performances of the company. Highly liquid shares used to calculate the ratios such as market-to-book ratio show better performance. Market-to-book ratio is a very good starting indicator in calculating different measures of liquidity. Companies with shares quoted on liquid capital markets and generally with more liquid shares, achieve higher returns on assets and have more equity in the capital structure. On the other hand, the price-operative earnings ratio is similar for liquid and for illiquid shares. These conclusions are valid in determining controlling stake for the industrial branch, the level of shareholder rights, risk and the moment when return to shares is achieved (Fang, Noe & Tice, 2009, p. 151). Furthermore, exogenous shocks and changes in the environment in terms of liquidity indicate that major changes in the shares liquidity lead to major changes in the performances of the company.

Subrahmanyam and Titman (2001) in their study of the relationship between share prices and company's cash flow have showed that the positive effects of a liquid market on the performances of companies is greater for liquid shares with high business uncertainty (high volatility of operating income and intense investment in research and development). Liquid markets allow informed investors to expose private information and profit from them. With the higher inflow of such information, the results of greater liquidity are increasing gains from the use of compensation based on shares. However, liquidity does not increase or diminish the effects of performances on shareholder rights. The market liquidity positive effect on performances comes from improving the incentive effects of the compensation in shares and improving investment decisions of corporate insiders.

In an extensive study Fang et al. (2009) have analyzed the correlation between market liquidity and the performance of companies, measured by Tobin's Q indicator. They used the indicator of the effective range based on daily TAQ[232] data, which is considered to be one of the best shares liquidity representative. To check indicators power, they used three alternative measures of liquidity: adjusted measure of illiquidity (Amihud, 2002), measure of liquidity based on a

[232] TAQ (The Trade and Quote) is a database that contains the daily trading and quotas of all securities listed on the New York Stock Exchange, American Stock Exchange, the NASDAQ national system of trading and securities of relatively small market capitalization (SmallCap issues). TAQ provides information about all securities quoted on the New York Stock Exchange since 1993.

percentage of zero daily returns (Lesmond, Ogden and Trzcinka, 1999) and the relative quota range on TAQ data basis..

The indicators on Tobin's Q basis has been used as a measure of companies' performances. Tobin's Q is used in a number of similar studies and represents the ratio of the company's market value and the costs of replacing its assets. Indicator Q in Fang et al. (2009) expresses the quotient of the assets market value and assets book value of the company at the end of the fiscal year. In addition, there have been calculated earnings-to-price ratio as the value of the operating income after depreciation divided by the market value of common shares and financial leverage ratio as a proportion of equity in the market value of the company's assets. All measures have revealed similar results, proving that market liquidity positively affects the performances and value of the company.

4. Methodological framework for empirical analysis

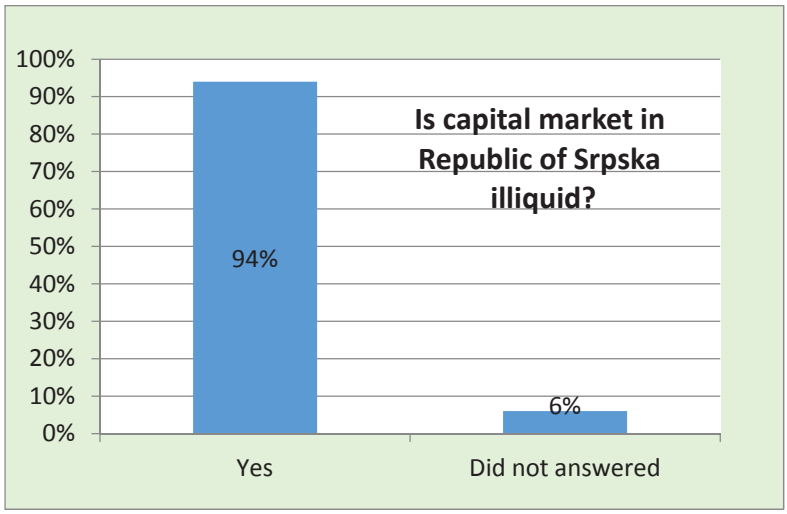
Illiquidity of the capital market and its impact on the performance and operating profitability of the companies, and thereby on the value of the companies are subject for a number of foreign studies, as well as few domestic analyses. Liquid markets allow informed investors to expose private information and profit from them. Results of other studies (Maug, 1998, Subrahmanyam & Titman, 2001, Khanna & Sonti, 2004, Fang, Noe & Tice, 2009) compared with ours, confirmed our hypothesis. Relevant information found on liquid capital market such as New York Stock Exchange prove that companies with more liquid shares have more success in corporate governance and higher operative business result. The main aim of this research is to confirm that liquidity of market and the marketability of shares (having in mind that cash flow and control rights are determined by shares) will be decisive factor in corporate governance, assessing the value and performances of the company.

We used information obtained by interviewing 50 certified appraisers in Bosnia and Herzegovina, who owned the license for evaluation. Most of the questions are of closed type: direct questions, questions with multiple choices and intensity questions. Respondents highlighted the characteristics of market illiquidity, which they believed existing in the Republic of Srpska. Furthmore, respondents gave their opinion about the characteristics and intensity of market illiquidity and how that affected their choice of methods and approaches they used performing their appraisal work. They answered the question about the coorelation between the market liquidity and performance of the companies they evaluated. Also, respondents declare on effect of managerial contract on companies' performance on capital market in Republic of Srpska.

The survey was limited to the examination of illiquidity of capital market in the Republic of Srpska. We also used data from the Banja Luka Stock Exchange, Republic of Srpska Institute of Statistics, as well as data from New York Stock Exchange, International Monetary Fund, World Bank and studies of other relevant instututions and authors.

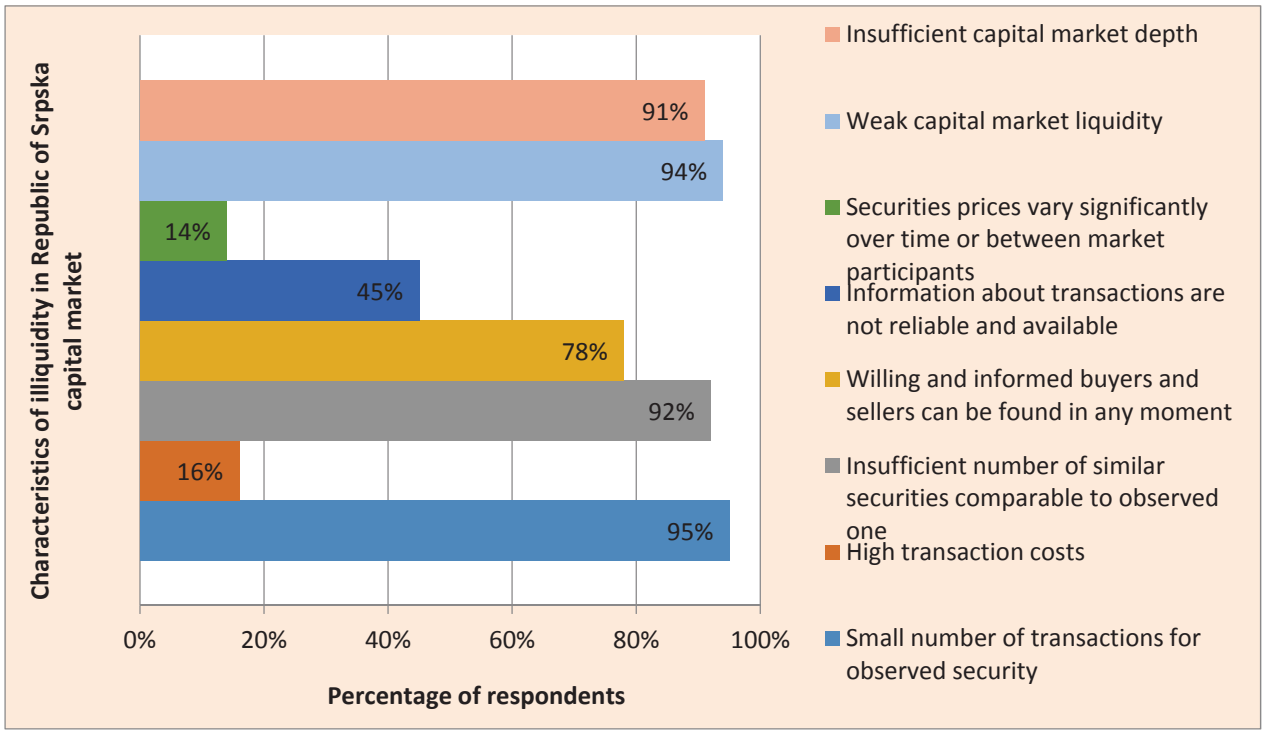
5. Results of analysis and discusion

Foremost, the research results show a high degree of agreement of respondents with the statement that the capital market in our country is illiquide. 94% of total number of respondents believe that the capital market in Republic of Srpska is not liquid, while 6% of the respondents did not answer the question. Of those interviewed, none has said that the capital market in our country is liquid.



Graph 1: Is capital market in Republic of Srpska illiquid?
Source: Author's survey

Respondents have agreed that all features of illiquid capital are characteristic for capital market in Republic of Srpska, only the degrees of manifestation of certain features are different.



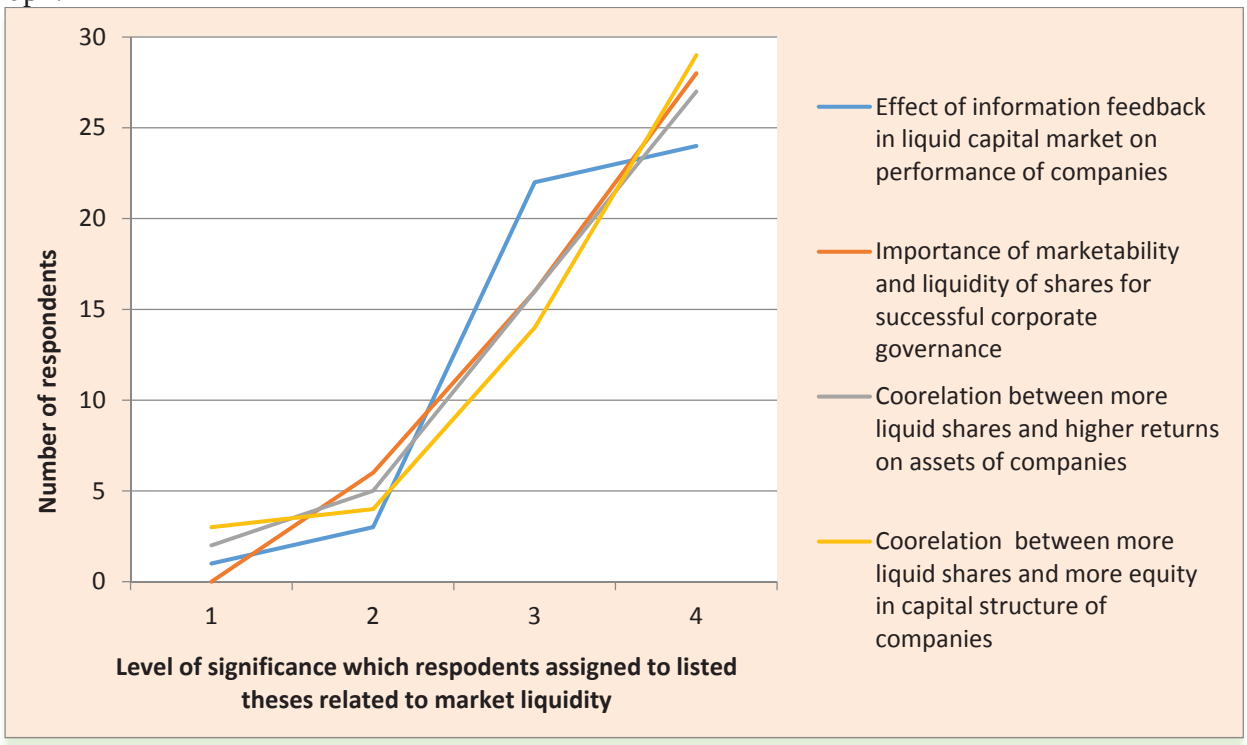
Graph 2: Characteristics of illiquidity in Republic of Srpska capital market
Source: Author's survey

Results indicate that 95% of respondents believe that there are small number of transactions for observed security or securities with similar characteristics on our capital market. Also, poor market liquidity and insufficient depth of the capital market (number and financial potential of buyers and sellers) are observed by 94% and 91% of surveyed appraisers, respectively. Likewise, the interviewees have found that the insufficient number of similar securities that are comparable with the observed one is significant problem in our capital market (92%). Somewhat smaller number of respondents are convinced that they can find a willing and informed buyers and sellers at any time (78%).

However, less than half of the respondents, that is 45%, think that information about the transactions are not reliable and available. The least marked characteristic of illiquid capital market are the high transaction costs (16%) and a significant variation of securities prices over time or between market participants (14%).

Obviously, the capital market in the Republic of Srpska is characterized as illiquid with all features of illiquidity at lower or higher extent.

The importance and the level of significance of market liquidity that respondents assigned to specific statements related to value and performance of companies are presented on following graph.



Graph 3: Significance of capital market liquidity for performance, return on assets and capital structure of companies
Source: Author's survey

Examinees marked theses related to market liquidity as not important (1), less important (2), medium important (3) and very important (4). Examined theses are: effect of information feedback in liquid capital market on performance of companies, importance of marketability and liquidity of shares for succesfull corporate governance, coorelation between more liquid shares and higher return on asset of companies and coorelation between more liquid shares and more equity in capital structure of companies.

Respondents have decided if four listed theses are less or more important. Effect of information feedback in liquid capital market on performance of companies is marked as not important by 2% and less important by 6% of examinees. Cumulatively, majority of examinees beleive that information are of medium importance (44%) or of high importance (48%) for result and performance of companies.

The importance of marketability and liquidity of shares for succesfull corporate governance is low for 12% of respondents, but medium for 32% and high for 56% of respondents, respectively. Obviously, majority of respondents think that marketability and liquidity of shares are of the highest importance for efficient menagement business.

The coorelation between more liquid shares and higher return on asset of companies is very strong according to 54% of respondents and medium strong for 32% of them. 10% of respondents marked this coorelation as less strong and only 4% of respondents see mentioned coorelation as weak.

The coorelation between more liquid shares and more equity in capital structure of companies is determined as medium strong by 28% of respondents and as very strong by 58% of them. Similar like in previos thesis, 6% and 8% of examinees think that this coorelation is weak and less strong, respectively.

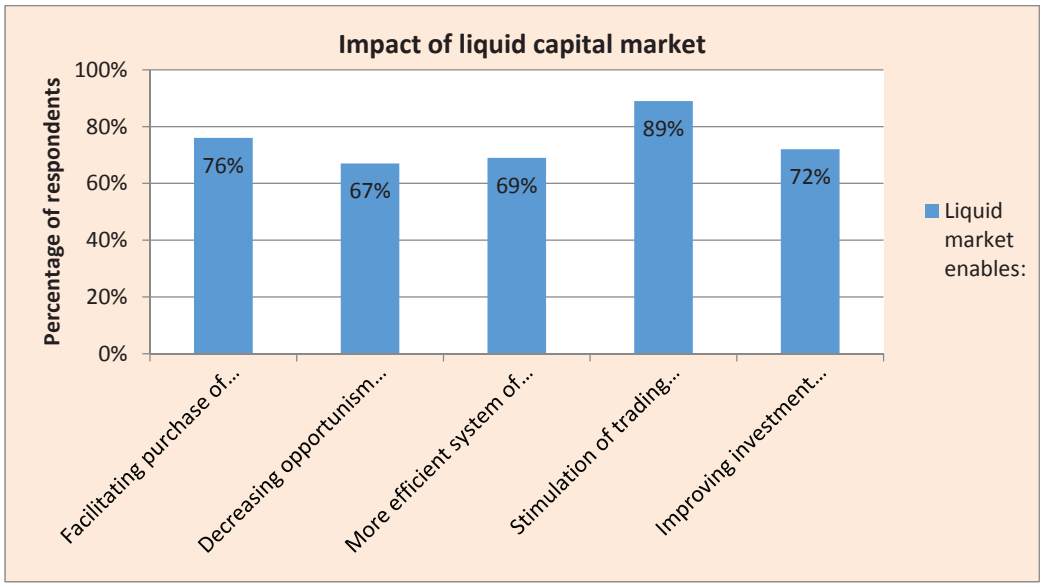
Conclusion following from all listed results is that in liquid capital market companies have higher returns, more equity in capital structure, better performance as well as more successful menagement, due to increasing incentive effects of managerial contracts. Thus, liquid capital market leads to higher value of companies listed on that market. More equity in capital structure of companies listed on liquid markets is explained by more effective share issues and continuous and regular shares trading.

Table 1: Some of precedences of liquid capital market

Liquid market enables:	**Percentage of respondents who agreed with statement**
Facilitating purchase of control or large block of shares	76%
Decreasing opportunism of menagers	67%
More efficient system of rewarding menagers	69%
Stimulation of trading between informed market participants / investors	89%
Improving investment decisions and corporate governance	72%

Source: Author's survey

Previous table presents results from analysis of some effects of liquid markets. 76% of examinees consider that liquid market enables easier purchase of control or large blocks of shares. Decreasing opportunism of menagers and more efficient system of rewarding menagers are assigned as characteristics of liquid markets by 67% and 69% of respondents, respectively. Stimulation of trading between informed market participants/investors is enabled by liquid market according to 89% of examinees. Finally, liquid market enables improving investment decisions and corporate governance as it is concluded by 72% of respondents. This is also presented on the graph.



Graph 4: Impact of liquid capital market
Source: Author's survey

The great majority of respondents agreed that liquid capital markets has positive impact on many aspects of operating business. On the other hand, in Republic of Srpska, capital market is illiquid which means that companies are faced with lower performances, more difficulties in gathering equity capital and achiving positive business results. The analysis showed that due to lack of liquidity in capital market in Republic of Srpska, appraisals are limited in using some of the methods of appraisal, especially methods of market approach. When market is illiquid, market value as the most reliable concept of value does not correspond conditions of appraisal, so other concepts such as fair value or special value have to be used. This means that illiquide capital market significantly restricts possibility of using certain appraisal approaches and concepts which results in less reliable and representative value of companies. The causal coorelation between less relevant company value achieved in appraisals and lower performanse on iliquid market is found to be existing in capital market of Republic of Srpska.

Conclusion

The market liquidity is based on the existence of a large number of buyers and sellers at any moment, ability to perform the following transaction at the same price as the previous one and the market capacity to absorb buying and selling larger amounts of securities without significantly affecting the price. The liquidity of capital markets is defined by four aspects: trading time, density/compaction, depth and elasticity/resistance. Liquidity measures are classified into two cathegories: one-dimensional and multidimensional. One-dimensional measures include: measures for analysing the size of the company, measures that represent the volume (quantity of shares) per time unit, measures associated with the spread and measures of liquidity associated with time. Multidimensional measures is consisting of Amivest liquidity ratio and Amihud illiquidity measure.

Results of the other authors' studies showed that the market liquidity positively affect the performance and operating profitability of the company. Causes of these results also have been examined and there has been provided empirical support for models of share price as well as for the view that liquidity improves the value of management compensation linked to the results achievement. In order to identify the causal effects of market liquidity on performance, the effect of exogenous shocks on liquidity has been tested theoretically. Increasing liquidity in the months of exogenous shocks enhance performance by boosting operating income. Liquid share market leads to greater monitoring because it allows the investor to cover the costs of monitoring through trading

based on relevant information. Liquid markets increase the possibility of successful corporate restructuring by allowing shareholders to realize gains from monitoring through informed trading and by ensuring application of the restructuring method based on efficiency, not lower price. Market liquidity can not be considered separately from trading with private information on the capital markets nor from monitoring of companies by large investors in order to realize capital gains on shares.

Empirical analysis conducted in our country envince that all features of illiquid capital are characteristic for capital market in Republic of Srpska, only the manifestation degrees of certain features are different. Significance of capital market liquidity for performance, return on assets and capital structure of companies was also demonstrated. Finding following from all listed results is that in liquid capital market companies have higher returns, more equity in capital structure, better performance as well as more successful menagement, due to increasing incentive effects of managerial contracts. Information feedback over the shares market price which are getting managers and other stakeholders is responsible for the better performance of companies whose shares are quoted on the more liquid capital markets. Thus, liquid capital market leads to higher value of companies listed on that market.

More equity in capital structure of companies listed on liquid markets is explained by more effective share issues and continuous and regular shares trading. This means that illiquide capital market significantly restricts possibility of using certain appraisal approaches and concepts which results in less reliable and representative value of companies. The causal coorelation between less relevant company value achieved in appraisals and lower performanse on iliquid market is found to be existing in capital market of Republic of Srpska. We conclude that the market liquidity improves the performance of the company over the higher operating income, which finally increases the value of the company.

References

1. Amihud, Y. (2002). Illiquidity and stock returns: cross-section and time-series effects. *Journal of Financial Markets.* 5, 1, pp. 31-56.
2. Amihud, Y.; Mendelson, H. (1986). Asset pricing and the bid-ask spread. *Journal of Financial Economics*. 17, pp. 223-249.
3. Benić, V.; Franić, I. (2008). Komparativna analiza likvidnosti tržište kapitala Hrvatske i zemalja regije. *Financijska teorija i praksa*, 32 (4), pp. 481-502.
4. Chordia, T.; Sarkar, A.; Subrahmanyam, A. (2005). An Empirical Analysis of Stock and Bond Market Liquidity. *Review of Financial Studies*. 18 (1), pp. 85-129.
5. Edmans, A. (2009). Block holder trading, market efficiency and managerial myopia. *Journal of finance*. 64 (6), pp. 2481-2513.
6. Fang, V. W.; Noe, T. H.; Tice, S. (2009). Stock market liquidity and firm value. *Journal of Financial Economics*. 94, pp. 150-169.
7. Khanna, N.; Sonti, R. (2004). Value creating stock manipulation: feedback effect of stock prices on firm value. *Journal of Financial Markets*. 7, pp. 237-270.
8. Lesmond, D. A. (2005). Liquidity of Emerging Markets. *Journal of Financial Economics.* 77, pp. 411-452.
9. Lesmond, D. A.; Ogden, J.; Trzcinka, C. (1999). A new estimate of transaction costs. *Review of Financial Studies*. 12, pp. 1113-1141.
10. Levy Yeyati, E., Schmukler, S.; Van Horen, N. (2007). *Emerging Market Liquidity and Crises*. Policy Research, Working Paper, 4445. The World Bank. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/12/13/000158349_20071213152426/Rendered/PDF/wps4445.pdf (accessed 29.06.2015.)

11. Maug, E. (1998). Large shareholders as monitors: Is there a trade-off between liquidity and control? *Journal of Finance*. 53 (1), pp. 65-98.
12. Pástor, L.; Stambaugh, R. (2003). Liquidity risk and expected stock returns. *Journal of Political Economy*. 111, p. 642-685.
13. Sarr & Lybek, (2002). Measuring Liquidity in Financial Markets. *IMF Working Paper WP/02/232.* http://www.imf.org/external/pubs/ft/wp/2002/wp02232.pdf (accessed 29.06.2015.)
14. Subrahmanyam, A.; Titman, S. (2001). Feedback from stock prices to cash flows. *Journal of finance.* 56, pp. 2389-2413.
15. Von Wyss, R. (2004). *Measuring and Predicting Liquidity in the Stock Market*, doctoral dissertation. St. Gallen: University of St. Gallen
16. Online sources:
17. Banja Luka Stock Exchange. (n.d.). Available at: www.blberza.com
18. International Monetary Fund. (n.d.). Available at: www.imf.org
19. New York Stock Exchange. (n.d.). Available at: www.nyse.com
20. Republic of Srpska Institute of Statistics. (n.d.). Available at: www.rzs.rs.ba
21. World Bank. (n.d.). Available at: www.worldbank.org

INTER-FUNCTIONAL COORDINATION AND ENTREPRENEURIAL FIRMS' FINANCIAL PERFORMANCE: A DEVELOPING ECONOMY

PhD Tamara Jovanov Marjanova[233]

PhD Elenica Sofijanova[234]

PhD Ljupco Davcev[235]

PhD Riste Temjanovski[236]

Abstract

The main purpose of this paper is to verify the significance of the internal part of market orientation, i.e. inter-functional coordination (IFC) for the financial performance of the entrepreneurial firms in a developing economy. The objectives are: 1. To measure the level of each of the variables of the scale (IFC 1: Current and future needs of consumers are discussed in all of the concerned departments; IFC 2: When a department discovers something important about the consumers or the competition, it quickly informs the other concerned departments; IFC 3: There is extensive communication between different departments in terms of consumer experience and market changes); 2. To determine the average level of IFC and, 3. To confirm the effect IFC has on profitability. The methodology included both quantitative and qualitative methods and, the research was done in entrepreneurial firms from the food production industry. This research is a part of an ongoing project entitled: "Strengthening the business capacity of women entrepreneurs in Republic of Macedonia, as a developing country". Primary data was derived from questionnaires and semi-structured follow-up interviews. Secondary data was collected from books, journals and academic articles. Data was analyzed with IBM SPSS19. The conclusions are given on the basis of descriptive and deductive statistics. The results show that firms of different sizes demonstrate diverse level of implementation of IFC i.e. medium – sized and large firms have higher average levels of IFC than small firms. The results also corroborate the significant relationship as well as the direct influence of the level of IFC on business profitability. The main limitation of this study is that it analyses a single industry in a given period of time and, the (small) size of the sample. However, the paper has some practical implications: to achieve higher financial performance and thus, higher success, firms must adopt and implement inter – functional coordination, as a part of the market orientation process. Also, the measurability of this internal part of market orientation on the basis of the MARKOR and MKTOR scales makes available a valuable tool for control of its implementation. The value of the paper derives from the verification of the significance of the relationship between IFC and profitability, in a different business sector and with a different research subject from those analysed hitherto by the literature. It also demonstrates the relationship among the dimensions that form inter – functional coordination in the firm.

Keywords*: Inter – functional coordination, market orientation, financial performance, entrepreneurship, developing economy*

[233]Faculty of Economics – Shtip, University "Goce Delcev" – Shtip, 2000 Shtip, Republic of Macedonia, tamara.jovanov@ugd.edu.mk

[234]Faculty of Economics – Shtip, University "Goce Delcev" – Shtip, 2000 Shtip, Republic of Macedonia, elenica.sofijanova@ugd.edu.mk

[235]Faculty of Economics – Shtip, University "Goce Delcev" – Shtip, 2000 Shtip, Republic of Macedonia, ljupco.davcev@ugd.edu.mk

[236]Faculty of Economics – Shtip, University "Goce Delcev" – Shtip, 2000 Shtip, Republic of Macedonia, riste.temjanovski@ugd.edu.mk

Introduction

The turbulent business environment and constantly increasing competition is causing researchers and firms to continuously search for and analyse the key elements in the working of the organization. In the past few decades some of the widely analysed marketing and management factors of influence were, and still are the competitors and the consumers (Smith, 1990; Cromie, 1991; Stokes and Wilson, 2006; Marjanova J. and Conevska, 2011; Marjanova J., 2014). Nonetheles, one other factor with great significance is the workforce, which is considered as an element of strategic importance and, with the greatest influence on business results (Post, Preston, and Sachs, 2002). In most of the industries, the employees are involved in every stage of the business process, form procurement of materials and goods to distribution and post – sales communication. Moreover, the participation of the personnel in the process of production, commercialisation or the final provision of the service creates a base for significant differentiation among firms (Gummesson, 1987; Lings and Brooks, 1998; Lings, 2004). Due to the proven connection with business performance, the personnel (employees' orientation, their treatment as internal customers) has become a subject of study of internal marketing (Collins and Payne, 1991; Rafiq and Ahmed, 1993). Furthermore, the process of market orientation of a company undeniably takes into account the actions of the workers through the analysis of the internal information sharing, known also as inter-functional coordination (IFC) (Narver and Slater, 1990; Kohli et al, 1993; Farell and Oczkowski, 1997).

However, most of the research regarding internal marketing and also, inter-functional coordination (IFC) has been done in developed economies. On the other side, firms in developing economies are facing challenges that rise from the changes in the process of transition, which additionally puts pressure on normal course of work. Macedonia belongs in transition/developing economies and, has witnessed significant structural changes in its domestic market (Davcev and Hourvouliades, 2013). The escalation of rivalry among competitors, rise in the amount of product substitutes, increased prospects for product quality, functionality etc., make the everyday tasks challenges in a medium and long run. Ferguson (1992) argues that lack of developed institutions, absence of skills and knowledge on the side of the working force as well as the managers, are some of the difficulties in marketing management processes faced by firms in developing economies. Zurawicki and Becker (1994) have identified several key challenges in firms in developing economies: low confidence in the reliability and efficiency of managers by broader public; lack of databases and representative research; gaps in the knowledge of management and marketing; failure to develop long-term strategies; little entrepreneurial activities; trivial starting capital and limited financial resources; focus on short-term financial results; affinity for small investments.

Macedonian entrepreneurial firms face problems common for developing economies, such as (Agency for Promotion of Entrepreneurship of the Republic of Macedonia, 2005) and (Ministry of Economy of the Republic of Macedonia, 2009): the economic development is based mainly on traditional markets through export of metals, food and beverages; price is main element of competitiveness; low quality of products; lack of certification for international quality standards and standardization of production processes; little information about market possibilities. Many of these factors are typical marketing management activities, such as: market research, positioning, diffusion of innovations, analysis of competition, etc.

The food production industry in Macedonia as the focus of the paper plays a significant role in the national economic development (Economic Chamber of Macedonia, 2013): it has a positive impact on the external trading balance of the country; it employs a significant part of the workforce and, it is a major consumer of other domestic industries (the packaging industry, transportation services etc.). However, this industry is continuously faced with many difficulties: 1. It is a part of a fragmented market for consumer goods, which is characterized with high competitive rivalry,

possibility of new entrants, many substitute products, high bargaining power of suppliers and consumers; 2. Foreign firms with strong brands, higher prices of products and / or intensive promotion are the market leaders, while the domestic firms implement mostly strategy of a follower or imitator with low – priced, low quality products. Continuous implementation of such strategies, on a market where the possibility to achieve better success, higher profit and larger market share are directly influenced by the sustainable competitive advantage, better competitive positioning and a proactive approach to strategic planning and marketing – management activities (Marjanova J., 2012), can be damaging to the firms in a way that produces a long - term inability to achieve higher market competitiveness.

This reality highlights the importance of additional research in the area of marketing and management in developing economies, such as Macedonia, because through sufficient evidence of the significance of marketing and management activities for business performance, new generations of managers can make a difference in the business operations.

In light of the above-mentioned, this paper presents the empirical results of one of the components of market orientation, specifically, inter-functional coordination level and implementation, in entrepreneurial firms in a developing economy.

Literature review

Some of the first contributions that included the internal aspects of the firm and personnel analysis as integral part of firms marketing activities are the studies by Kotler (1972) and Booms and Bitner (1981). Grönroos (1984) suggested that company's orientation toward personnel is related to external marketing or customer focus. Other have concluded that the employees are one of the groups of stakeholders with the strongest influence on the company (Donaldson and Preston, 1995; Post, Preston, and Sachs, 2002). According to Grönroos (1985) and Richardson and Robinson (1986), employees can be motivated to develop a higher market orientation, to search for and identify the needs and demands of company's customers, and to develop a sales mentality. Gummesson (1987) and Lings (2004) suggest that an entrepreneurial company should seek to grow the level of customer orientation among all the workers, and not only to the ones that interact directly with customers, because all the employees included in the production and commercialisation of the goods and services affect the end results of the business. The focus and analysis of the employees in a company can lead to integration of the functions within (George, 1990; Gilmore and Carson, 1995) and, serve as a strong base for strategic implementation and change (Winter, 1985).

The level to which every employee is fully commited to build and introduce marketing philosophy and integration of marketing activities in the company that will create value for consumers can be considered as inter – functional coordination (Wrenn, 1997). Inter – functional coordination is also defined as "the coordinated use of company resources in creating superior value for target customers" Narver and Slater (1990). IFC is considered as an integral part of market orientation, which consists of (Kohli and Jaworski, 1990): consumer orientations, reaction on consumer demands, competitor orientation, inter – functional coordination or internal information sharing. Therefore, higher level of IFC can lead to higher level of market orientation, which additionaly results in numerous benefits for the company (Marjanova J., 2014): better response to - and satisfaction of customers' needs; detailed analysis of competitors and better preparation for defensive or offensive strategies; increased internal information sharing and improved decision making; orientation on long term strategic planning instead of short term activities; etc.

Altogether, the analysis of empoyees and the level of IFC, can be considered as a marketing management process that integrates the many different functions of a company. This means that

with the proper management of personnel, the company can achive an improvement of employee-customer interaction, and also success in the market and business performance (Bak et al., 1994; Foreman and Money, 1995; Lings, 1999).

Methodology and hypotheses

This paper aims to prove the significance of inter-functional coordination (IFC) as an integral part of market orientation, for the competiveness of entrepreneurial firms, linking it to business performance (profitability), in a developing economy. The methodology included quantitative and qualitative methods. Primary data derived from structured questionnaires about attitudes on inter-functional coordination statements, measured on a 5-point Likert scale (1- strongly disagree to 5-strongly agree), whereas for profitability a subjective scale was created (0 – extremely poor to 10 – absolutely outstanding). The subjective scales are taken as a measure due to: 1. managers' avoidance to provide accurate data that reflect their business performance, and 2. high level of convergence between subjective and objective scales for measuring business performance as reported by Dawes (1999). In addition, a semi-structured interview was conducted with the managers of 19 firms in the food production industry in Macedonia. Secondary data derived from books, journals and academic articles. Data was analyzed with IBM SPSS19. The conclusions are given on the base of descriptive and deductive statistics.

The model of market orientation and, IFC as its fundamental part is given on the basis of popular scales used in the measurement of market orientation, i.e. MKTOR (Narver and Slater, 1990), the revised MARKOR scale of 20 variables (Kohli et al, 1993) and (Farell and Oczkowski, 1997). Accordingly, the elements of IFC for the needs of this study are as follows:

- IFC 1: Current and future needs of consumers are discussed in all of the concerned departments (adapted from MARKOR, point 8);
- IFC 2: When a department discovers something important about the consumers or the competition, it quickly informs the other concerned departments (adapted from MARKOR, point 11);
- IFC 3: There is extensive communication between different departments in terms of consumer experience and market changes (adapted from MKTOR, point 12 and MARKOR, point 7).

Some of the scales (MKTOR, Narver and Slater, 1990) used in the measurement of market orientation and IFC are being criticized (Kohli et al, 1993) for their narrow focus (primarly on customers and competition). For this reason, our study adopts the scale of measurement based on the aforementioned three different scales, applied to a different business sector and with a different research subject from the ones studied by these authors. One of the main goals of the adaptation was the need and ability to measure the degree of transfer of information in the firms, which are essential for appropriate and timely business decisions.

In the light of the above - mentioned literature, we can conclude that firms from development economies are facing many challenges on the basis on which they demonstrate some weaknesses in their strategic planning, such as: difficulties to plan or implement strategy, insufficient situational analysis, low levels of market orientation and low market competitiveness in general. With sufficient evidence for the impact of the mentioned factors, new generation managers in developing economies may create a base that will implement the changes needed for strategic planning. Therefore, in order to confirm the effect that the components of market orientation, specifically inter-functional coordination, have on business performance, we propose the following hypotheses:

1. Entrepreneurial firms in a developing economy implement medium level of IFC.
2. The implementation of IFC differs among firms of different sizes;

3. Implementation of higher level of IFC in business activities directly and positively affects business profitability.

Findings and discussion

Descriptive statistics shows that the share of the enterprises by size (small, medium and large) in the purposive statistical sample of 19 enterprises are nearly equal (Table 1). The analysis if focused on entrepreneurial firms irrespective of the size, since the authors believe that the level of IFC and, market orientation of the company in general, should not depend of the size, but of the level of competitiveness and attractiveness of the industry and the competitive strength of the company within.

Table 1. Descriptive statistics of the sample: Enterprises by size

		Frequency	Percent	Cumulative Percent
Valid	Small	6	31.6	31.6
	Medium	7	36.8	68.4
	Large	6	31.6	100.0
	Total	19	100.0	

The analyzed firms have reported on average moderately bad profitability (average of 5.3; min.3; max.9), with notable differences among firms of different sizes, i.e. most of the small firms (50%) have profitability that is bad (close to 0), most of the medium – sized firms (57%) have moderately good profitability, while large firms have stated that their profitability is very good (33%) and extremely good (33%) (Table 2).

Table 2. Crosstabulation: firms' profitability and size

			Size of the company			
			Small	Medium – sized	Large	Total
Profitability	Bad	Count	3	0	0	3
		% within company's size	50.0%	.0%	.0%	15.8%
	Moderately bad	Count	2	2	1	5
		% within company's size	33.3%	28.6%	16.7%	26.3%
	Moderately good	Count	1	4	1	6
		% within company's size	16.7%	57.1%	16.7%	31.6%
	Very good	Count	0	1	2	3
		% within company's size	.0%	14.3%	33.3%	15.8%
	Extremely good	Count	0	0	2	2
		% within company's size	.0%	.0%	33.3%	10.5%
Total		Count	6	7	6	19
		% within company's size	100.0%	100.0%	100.0%	100.0%

Scale reliability was tested with coefficient Cronbach alpha (α). It is obtained that IFC has internal consistency over the acceptable level $\alpha = 0{,}854$ (Gliem and Gliem, 2003). This means that the test can simply be repeated in future research.

The degree of IFC as a whole and of the variables in the model separately, are defined through measures of central tendency (Aaker, Kumar and Day, 2007), in this case - arithmetic mean of the responses of managers for each of the variables that make up the scale. Overall, the average degree of IFC from the analysis of the firms showed a level of 3.9 (Table 3). This result confirms the first hypothesis. Aditionaly, from table 3 we can see that the employees in these firms have better results in dissemination of important information among different departments (IFC 2), while on the other side, the discussion about the needs (current and future) of consumers are on a lower level (IFC 1).

Table 3. Average values of IFC variables

IFC		IFC 1	IFC 2	IFC 3
N	Valid	19	19	19
	Missing	0	0	0
Mean		3.53	4.16	4.05
Min.		2	3	2
Max.		5	5	5

* Average value of IFC is 3.9, i.e. (3.53+4.16+4.05)/3=3.91

The analysis (Table 4) shows that small firms have the lowest average level of implementation of IFC (2.89), medium-sized, on the other hand, showed better results with higher average values (4.14), as well as large firms (4.17). The almost same levels of implementation of IFC showed by medium – sized and large firms' demands further research on the causes of this situation.

Table 4. Crosstabulation: Level of IFC and firms' by size

			Size of the company			
			Small	Medium - sized	Large	Total
IFC (min - max)	2.33	Count	1	0	1	2
		% within company's size	16.7%	.0%	16.7%	10.5%
	3.00	Count	3	1	0	4
		% within company's size	50.0%	14.3%	.0%	21.1%
	3.33	Count	0	1	1	2
		% within company's size	.0%	14.3%	16.7%	10.5%
	3.67	Count	0	1	0	1
		% within company's size	.0%	14.3%	.0%	5.3%
	4.00	Count	1	0	0	1
		% within company's size	16.7%	.0%	.0%	5.3%
	4.33	Count	0	1	1	2
		% within company's size	.0%	14.3%	16.7%	10.5%
	4.67	Count	0	1	0	1
		% within company's size	.0%	14.3%	.0%	5.3%
	5.00	Count	1	2	3	6
		% within company's size	16.7%	28.6%	50.0%	31.6%
Total		Count	6	7	6	19
		% within company's size	100.0%	100.0%	100.0%	100.0%

* Average value of IFC in small firms: [2.33 + (2*3) + 4 + 5] / 6 = 2.89
* Average value of IFC in medium - sized firms: [3 + 3.33 + 3.67 + 4.33 + 4.67 + (2*5)] / 7 = 4.14
* Average value of IFC in large firms: [2.33 + 3.33 + 4.33 + (3*15)] / 6 = 4.17

The deductive analysis is based on the assumption of a linear dependence of phenomena, according to which it is assumed that the level of profitability in a company is a linear function of the level of IFC which the enterprise applies in its operations. Several measurements were performed using correlation and linear single regression analysis, in order to test the isolated impact of IFC on the business profitability. Prior regression analysis, it was important that some of the underling conditions for linear regression are met: 1. Linear relationship between the dependent variable and the independent one (confirmed by significant correlation association of phenomena and F-test); 2. High reliability of the test (Gilem and Gilem, 2003) for measuring of the independent variables (determined by the values of Cronbach's alpha); 3. There is no multicollinearity between independent variables (VIF < 5).

Correlation analysis shows that there is significant direct correlation between IFC 1, IFC (total average) and business profitability (Table 5).

Table 5. Correlation: IFC and profitability

		IFC 1	IFC 2	IFC 3	IFC
Profitability	Pearson Correlation	.464*	.402	.396	.478*
	Sig. (2-tailed)	.046	.088	.093	.038
	N	19	19	19	19

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Additionally, during a one sided test, a simple linear regression analysis with critical value of the test $t_{df;\alpha}$ =1.740, according to the rule of decision-making: $t>t_{df;\alpha}$ (Newbold, Carlson and Thorne, 2007), confirmed the linear dependence of profitability on IFC, i.e. that the profitability depends proportionately on the level of implemented IFC (table 6).

Table 6. Regression estimates

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.478[a]	.228	.183	1.838

a. Predictors: (Constant), IFC

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.732	1.789		.968	.347
	IFC	.997	.444	.478	2.243	.038

a. Dependent Variable: profitability

With the F-test for testing the statistical quality of the regression (F=5.033; df:1;17; critical value of the test $F_{1;17}$= 4.45) (Newbold, Carlson and Thorne, 2007) the relation between profitability and the the level of IFC in a company, is statistically significant (Table 7).

Table 7. ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.000	1	17.000	5.033	.038[a]
	Residual	57.421	17	3.378		
	Total	74.421	18			

a. Predictors: (Constant), IFC
b. Dependent Variable: profitability

The regression analysis has confirmed the third hypothesis. The relation of IFC and profitability states the importance of the higher level of IFC for better performance and competitiveness of firms.

After mentioning the main contributions of the study, we show its most notable limitations. First of these is the analysis of IFC at a given moment in time, when its study demands a longitudinal treatment in accordance with the dynamic nature of the reality that it aims to describe. However, the main limitation of the present study lies in the small number of firms analyzed, despite the high response rate (all of the targeted respondents). It is therefore necessary to repeat the study in other entrepreneurial firms characterised by turbulent business environment similar to the one analyzed.

Conclusions

The study shows that entrepreneurial firms in a developing economy operate under problematic circumstances, with certain limitations in the strategic planning process and implementation. They tend to implement a medium level of IFC, whereas firms of different sizes demonstrate diverse level of implementation of IFC. That is, medium – sized and large firms have higher average levels of IFC than small firms. The results also corroborate the significant relationship, as well as the direct influence of the level of IFC on business profitability. On the base of the findings, we can conclude that it is of great importance for a company to adopt and maintain a high level of IFC and, market orientation in general. Therefore, the entire personnel, regardless of the size of the enterprise, in various departments of the company must be coordinated in a way that can create value for customers through mutual cooperation and assistance, or the company should organize multifunctional teams rather than separate departments. It is also important that the internal cooperation is presented through participation in the creation of company's plans and strategies, distribution of information obtained from/about clients across sectors, as well as knowledge about offering superior value to the customer.

The paper has some practical implications. Namely, in order to achieve higher financial performance and thus, higher success, firms must adopt and implement inter – functional coordination, as a part of the market orientation process. Also, the measurability of this internal part of market orientation on the basis of the MARKOR and MKTOR scales makes available a valuable tool for control of its implementation. The value of the paper derives from the verification of the significance of the relationship between IFC and profitability, in a different business sector and with a different research subject from those analysed hitherto by the literature.

Funding

This research is a part of the project entitled: “Strengthening the business capacity of women entrepreneurs in Republic of Macedonia, as a developing country”. The the publication fee is covered by the funds of the project.

References

1. Agency for promotion of Entrepreneurship of the Republic of Macedonia. (2005). *SME's report for 2004.* Skopje: SME's Observatory of the Republic of Macedonia. pp.61-66.

2. Bak, C.A.; Vogt, L.H.; George, W.R. and Grenntree, I.R. (1994). Management by Team: An Innovative Tool for Running a Service Organization through Internal Marketing. *Journal of Services Marketing*. 8(1), pp. 37-47

3. Booms, B.H. and Bitner, M.J. (1981). Marketing Strategies and Organizational Structures for Service Firms. In J. Donnelly y W. George (Eds.). *Marketing of Services.* American Marketing Association. pp. 47-51, Chicago, IL.

4. Collins, B. and Payne, A. (1991). Internal Marketing: A New Perspective for HRM. *European Management Journal*. 9(3), pp. 261-270.

5. Cromie, S. (1991). The Problems Experienced by Young Firms. *International Small Business Journal*. 9(43), pp. 45-46

6. Davcev, Lj. and Hourvouliades, N. (2013). Banking Concentration in FYROM: Evidence from a country in transition. *Procedia Economics and Finance.* 5. pp. 222-230

7. Dawes, J. (1999). The relationship between subjective and objective company performance measures in market orientation research: Further empirical evidence. *Marketing Bulletin*. 10. May. pp. 65-75

8. Donaldson, T. and Preston, L.E. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications. *Academy of Management Review.* 20(1), pp. 65-91.

9. Economic Chamber of Macedonia. (2013). *Group of Confectionery Industry*. http://www.mchamber.org.mk/%28S%28wxyhczytipfy0te232kvqhai%29%29/default.aspx?mId=130&lId=1&smId=6, (accessed: 15.11.2013)

10. Farrell, M. A. and Oczkowski, E. (1997). An Analysis of the MKTOR and MARKOR Measures of Market Orientation: An Australian Perspective. *Marketing Bulletin.* 8. Article 3. pp. 10-11

11. Ferguson, P. (1992). Privatization options for Eastern Europe: The irrelevance of western experience. *World Economy.* 15(4), pp.487-504.

12. Foreman, S.K. and Money A.H. (1995). Internal Marketing: Concepts, Measurement and Application. *Journal of Marketing Management*. 11(8), pp. 755-768.

13. George, W.R. (1990). Internal Marketing and Organizational Behavior: a Partnership in Developing Customer-Conscious Employees at Every Level. *Journal of Business Research.* 20(1), pp. 63-70.

14. Gilmore, A. and Carson, D. (1995). Management Competences for Services Marketing. *The Journal of Services Marketing*. 10(3), pp. 39-50.

15. Grönroos, C. (1984). A Service Quality Model and Its Marketing Implications. *European Journal of Marketing.* 18(4), pp. 36-44.

16. Grönroos, C. (1985). Internal Marketing-Theory and Practice. *American Marketing Association´s Services Conference Proceedings*. pp. 41-47.

17. Gummesson, E. (1987). Using Internal Marketing to Create a New Culture. The Case of Ericsson Quality. *Journal of Business Industry Marketing.* 2(3), pp. 23-28.

18. Marjanova, J.T. and Conevska, B. (2011). Comparative analysis of factors from marketing and legal perspective and policies that affect SMEs in Macedonia and EU. *Proceedings: Economic development and entrepreneurship in transition economies: A Review of Current Policy Approaches (REDETE)*. October. Banja Luka. pp. 477-490

19. Marjanova Jovanov, Tamara (2012). Marketing Research of the Chocolate Market in Macedonia. *Marketing*. 43(1). pp. 62-77

20. Marjanova Jovanov, Tamara (2014). Market orientation and business performance: through the prism of Macedonian SMEs. International REDETE Conference *Proceedings: Researching economic development and entrepreneurship in transition economies*, 3. Banja Luka. pp. 642-653

21. Kohli, A. and Jaworski, B. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*. 54. p. 6.

22. Kohil, A.K. Jaworski, B. J. and Kumar, A. (1993). MARKOR: A Measure of Market Orientation. *Journal of Marketing Research.* 30. November. pp. 467-477

23. Kotler, P. (1972). A Generic Concept of Marketing. *Journal of Marketing*. 36(2), April. pp. 46-54.

24. Lings, I.N. (2004). Internal Market Orientation. Construct and Consequences. *Journal of Business Research.* 57(4), pp. 405-413.

25. Lings, I.N. and Brooks, R.F. (1998). Implementing and Measuring the Effectiveness of Internal Marketing. *Journal of Marketing Management.* 14(4/5), pp. 325-351.

26. Lings, I.N. (1999). Balancing Internal and External Market Orientations. *Journal of Marketing Management*. 15(4), pp. 239-263.

27. Lings, I.N. (2004). Internal Market Orientation. Construct and Consequences. *Journal of Business Research.* 57(4), pp. 405-413.

28. Ministry of Economy of the Republic of Macedonia. (2009*). Industrial politics of the Republic of Macedonia for 2009-2020.* Ministry of Economy of the Republic of Macedonia. Skopje. pp. 72-74.

29. Narver, J. and Slater, S. (1990). The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*. 54. pp. 20-35.

30. Post, J.E.; Preston, L.E. and Sachs, S. (2002). Managing the Extended Enterprise: The New Stakeholder View. *California Management Review.* 45(41), pp, 6-28.

31. Rafiq, M. and Ahmed, P.K. (1993). The Scope of Internal Marketing: Defining the Boundary between Marketing and Human Resource Management. *Journal of Services Marketing.* 14(6), pp. 449-462.

32. Richardson, B.A. and Robinson, C.G. (1986). The Impact of Internal Marketing on Customer Service in a Retail Bank. *Human Communication Research*,.8(2), pp.170-188.

33. Smith, D. (1990). Small is Beautiful, but Difficult: Towards Cost-Effective Research for Small Business. *Journal of the Market Research Society.* 32(1), pp. 37–60.

34. Stokes, D. and Wilson, N. (2006). *Small Business Management and Entrepreneurship*, 5th ed. Thomson Learning.

35. Winter, J.P. (1985). Getting your House in Order with Internal Marketing: a Marketing Prerequisite. *Health Marketing Quarterly*. 3(1), pp. 69-77.

36. Wrenn, B. (1997). The Market Orientation Construct: Measurement and Scaling Issues. *The Journal of Marketing Theory and Practice.* 15(3). pp. 31-54

37. Zurawicki, l. and Becker K. (1994). Marketing issues and strategies for change in the Central/Eastern European and CIS countries. *Journal of Euro marketing.* 3(2), pp.61-90.

INFLUENCE OF CATASTROPHIC FLOODS ON BUSINESS ENTERPRISES IN BOSNIA AND HERZEGOVINA

PhD Nenad Lalić[237]

MSc Predrag Đurić[238]

Boris Novarlić MSc[239]

Abstract

This paper analyses the influence of catastrophic floods in May 2014 in Bosnia and Herzegovina onto small and medium enterprises. In that period a massive amount of rain hit Bosnia and Herzegovina, which caused severe floods in North, East and Central areas in the country. It is estimated the floods were the greatest in the last 120 years, thus they caused enormous destruction, end made worse the previous damage from 1992-1995 Civil war and unemployment issues. Natural catastrophes struck nearly a fourth of Bosnia and Herzegovina territory, and approximately 1 million people, which is around 27% of the total population. Further on, almost 50% of local administration units, as well as urban, industrial and rural areas were affected by these floods.

The research for this paper was realized in June 2014 at the City of Doboj, on a sample of 115 small and medium enterprises (N=115). The research method used was quantitative and field constructed, and also the research was supported by the Agency for development small and medium enterprises city of Doboj. The questioner used for the research contained questions concerning the extent of direct and indirect damage in the enterprises, the estimated number of working days necessary for restarting the business, and the number of workers that needed to be fired due to downsizing of business activities. Also, within the research we tasted the attitude of the entrepreneurs on potential ways of help to the enterprises which were damaged in the floods.

This issue is crucial, since the city of Doboj represents one of the key communication and transportation centers in Bosnia and Herzegovina. Its territory encompasses 813 km^2 and it is split in 73 local communities with approximately 73.000 residents. In other words, it is a strategic city which was most affected by one of the greatest floods in the country, so its recovery had to be fast.

The goal of this paper is to try to find concrete solutions and ways of enabling help for small and medium enterprises in Doboj, in order to them to recover as soon as possible from the consequences of floods in May 2014. Also, this paper suggests creating a special Help Fund for economy and exceptional situations in Republic of Srpska, and Bosnia and Herzegovina in general.

Keywords: *economy, floods, Help Fund,management and organizational change*

[237] Faculty of Economics Brcko, University of East Sarajevo, Associate Professor of Entrepreneurship, Studentska 11, 76100 Brcko, Brcko District, Bosnia and Herzegovina, nenad.lalic@yahoo.com

[238] Agency for development small and medium enterprises city of Doboj, Director, Nemanjina 20, 74000 Doboj, Republic of Srpska, Bosnia and Herzegovina, predodjuric@gmail.com

[239] Communal Enterprise „Progres“ a.c. Doboj, Managing Director, Karadjordjeva 10, 74000 Doboj, Republic of Srpska, Bosnia and Herzegovina, boris.novarlic11@gmail.com

Introduction

For the past 30 years disasters are increasing in frequency and intensity. The total number has risen from 73 in 1975 to around 440 in 2007. The number of climate disasters has been almost triplicated: from 1.280 between 1978 and 1987 to 3.435 between 1998 and 2007. According to a document *Collaboration center for research of epidemiologic catastrophes* (2009) the catastrophes mostly affect the developing countries because they are the most vulnerable and have weak capacities for dealing with them. For example, an earthquake of 6.6 degrees which struck Iran in 2003 has killed 40.000 people. Opposite to it, an earthquake of 6.5 degrees which struck California four days earlier killed 2 people and injured 40 people. Catastrophes also redirect great national resources from development to help, renovation and reconstruction, leaving the poor without resources necessary for escaping poverty. It is estimated that a tsunami in Aceh, Indonesia in 2003 increased the number of people living under the line of poverty from 30% to 50%. Besides, in developing countries the population is dependent on healthy animals and crops, so that catastrophes caused by biological dangers can have very negative influences on food safety, and thus cause new disasters. In terms of biological dangers one should have in mind that disease and pest development, if not properly fought against, can easily become endemic and influence the "economic" status of a country or a region, i.e. on the middle-term and long-term economic perspectives.

This paper analyses the influence of catastrophic floods in May 2014 in Bosnia and Herzegovina onto small and medium enterprises. In that period a massive amount of rain hit Bosnia and Herzegovina, which caused severe floods in North, East and Central areas in the country. It is estimated the floods were the greatest in the last 120 years, thus they caused enormous destruction, end made worse the previous damage from 1992-1995 Civil war and unemployment issues. Natural catastrophes struck nearly a fourth of Bosnia and Herzegovina territory, and approximately 1 million people, which is around 27% of the total population. Further on, almost 50% of local administration units, as well as urban, industrial and rural areas were affected by these floods.

According to estimates, damages and loses caused my floods in May 2014 in Bosnia and Herzegovina are enormous and range around 2 billion Euros. Only the business sector suffered the damage of approximately 1.2 billion Euros, while the estimates did not take into account the damages made in the informal sector, which also need to be repaired. The damages of floods endangered lives and socio-economic future of citizens of BiH, where 3.000 people lost their jobs and 13.500 working positions have been directly endangered, while 50.000 working positions are considered to be indirectly endangered. However, a more disappointing fact than the mentioned data is that the mentioned damages could have been double smaller if the authorities in charge have made preventive measures against floods in time. Data showing that in the last few years floods have struck areas of Federation of BiH and caused major material damages which were estimated to around 50 million in 2010 Euros testify these claims are true. It is indicative that floods repeat almost every year in the same areas identified in the document. From businessmen's point of view the authorities have not done enough in conducting prevention measures which resulted in flooding of objects, agricultural land and settlements. Researches of scientists and studies, as stated in a document *Revision report of performance – flood prevention in FBiH (2013),* show that activities in reconstruction and maintenance of existing and installment of new protective objects are insufficient and that there is an evident stagnation. According to expert estimate each invested dollar for prevention reduces the flood damage up to eight times, floods as a natural phenomenon are impossible to prevent, but undertaking preventive measures can ease harmful water influence.

Economy structure indicators in Doboj City area

The total territory of the city of Doboj is 813 km^2, and it is administratively divided into 73 local communities, and according to the Republic statistics department it has 73.000 citizens

(Socio-economic analysis of the municipality of Doboj, 2010). The particularity of Doboj economy is reflected in the fact that in the 1980s economic growth was based on industry and mining more than in other cities in BiH. Industry and mining together with construction and manufacturing participated in the social product of the municipality with approximately 50%, and in total employment approximately 55% (Đukanović and Stjepanović, 2013). According to data from 2013 the structure of total industrial production in Doboj city area is extremely unfavorable since only a few economy subjects participate with 90,4% in total structure, while other companies participate with 9,6%. Besides, recession movements in the economy of Republic of Srpska which are in great amount a consequence of economy and foreign-trade activities also influence negatively. In industry area the process of structural reforms happened slowly or was completely omitted, so the sector of industrial production could not positively influence the entire economic development of the local community. Specifically, in most industrial companies after conducting the process of privatization no important results of production revival, technological programming modernization and quality of operations are visible (Information on current problematic of economy state in Doboj city area with reference to fulfilled results of economy subjects' business according to the annual account of 2012, (2013)). When one looks at the total foreign trade exchange in Doboj city area, it is a fact that the structure of exchange is not favorable. In export structure raw materials and half-products of low processing level as well as products with low level of working power engagement are dominating. The structure of imported goods is much wider, from fuels to consumer goods and groceries. In 2012 the structure of import was as it follows: raw materials (45,8%), reserve parts and equipment (43,8%) and consumer goods (10,4%). From competitiveness standpoint this state is unfavorable because the structure of export has a low level of participation of those product groups which desirably to create the competitiveness of the city of Doboj in the future. Improving export structure and competitiveness cannot be achieved through radical decrease of import. On the contrary, it should be specially stimulate the import of equipment and components which develop production programs and widen the range of export offer.

Table 1: Structure of companies according to size and shape of organization in the city of Doboj

No.	Size	Company No.	Independent enterprises	Total	%
1.	Micro	100	2.104	2.204	87,1
2.	Small	272	11	283	11,2
3.	Medium	38	-	38	1,5
4.	Large	6	-	6	0,2
Total		**416**	**2.115**	**2.531**	**100**
%		16,4	83,6	100	

Source: Department of economy and social activities of Doboj City, 2013.

As presented in Table 1, there were 2.531 economy subjects in Doboj city in 2012 which is 31, 4 companies on 1000 citizens which is close to the average of Republic of Srpska (30,04). Out of total number of companies 416 (16,4%) are small and medium enterprises, while 2.115 (83,6% are independent enterprises). Within the structure of independent enterprises there are mostly micro enterprises 2.204 (87,1%), while 283 (11,2%) are small enterprises. In Doboj city area the greatest number of small and medium enterprises is concentrated in retail and wholesale trade sector 146 (35,1%), then in manufacturing 41 (9,8%), while other sectors are much less covered and together they make 229 (55,1%) small and medium enterprises. According to organizational type within the total number of independent contractor shops there are small trade shops 702 (33,1%), then craft shops 457 (21,6%) and catering shops 326 (15,4%).

The level of damage on business sector as a consequence of floods

Heavy rain falls at the area of Republic of Srpska and wider, included the city of Doboj and caused catastrophic floods in Doboj city area by pouring the rivers of Bosnia, Usora and Spreca and their tributaries and terrain gliding with unforeseeable consequences such as damages and destruction of residential, commercial, public and other objects, blockage of road and postal traffic, electricity and water supply interruption, as well as large damage and destruction of agricultural, construction and forest land and road infrastructure. Natural disaster caused by elementary catastrophe (flood) at the Doboj city area included 5.168 ha, whereas the rivers Bosnia and Usora flooded 4.676 ha and the river Spreca 492 ha. The result was that the floods included the inner center of Doboj city, the suburbs and 33 other residential areas. Besides areas in the valley of rivers Bosnia and Spreca, parts of communities Stanari and Raškovci were flooded, too.

The results of damage evaluation are presented according to instructions on unique methodology for elementary disasters damage evaluation (Elaborate on estimated damages in Doboj city area caused by an elementary disaster, 2014, p 34). The total damage for legal entities on construction objects, equipment, and other resources and goods and indirect damages in Doboj city range around 80 million BAM, which is presented in Table 2.

Table 2: Structure of legal entities' flood damage in May 2014 on construction objects, equipment, other resources, and indirect damage in Doboj city

Activity	Number of companies	Estimated damage level		Expenses	Indirect damage	Total damage in BAM
		Damaged	Destroyed			
Industry and mining	4	60.994	753.007	0	96.600	910.601
Agriculture and fishing	6	174.930	1.259.839	0	300.000	1.734.769
Forest resources	2	0	15.287	0	0	15.287
Water resources and supply	1	67.723	19.007	0	200.000	286.731
Construction	18	1.153.687	1.284.420	0	1.779.600	4.217.707
Traffic and relations	7	212.862	361.585	0	1.225.000	1.799.447
Trade	325	19.477.810	13.418.418	47.385	23.131.096	56.074.709
Catering and tourism	130	490.637	5.285.296	0	3.585.542	9.361.475
Craft	154	0	4.963.729	0	1.237.844	6.201.573
Residential and utility services	27	77.395	1.015.189	0	0	1.092.584
Financial and other services	16	0	1.074.614	0	10.600	1.085.214
TOTAL	**690**	**21.716.038**	**29.450.391**	**47.385**	**31.566.282**	**82.780.097**

Source: Commision for damage from elementary disasters evaluation, Doboj, 2014, p 34

As presented in Table 2, in the Doboj city area a total number of 690 enterprises suffered the damage from May 2014 floods. When it comes to partial damage on construction objects and equipment it ranges around 21 million, while 29 million is the amount of completely damaged

equipment in the mentioned companies, while indirect damage is around 31 million. The total amount of flood damage for legal entities in May 2014 on construction objects, equipment and other resources, and the indirect damage in Doboj city is around 82 million.

The main challenges the city of doboj faces with after the disasterous flood from the standpoint of city garbage depot

Through May and June 2014 an amount of 110.000 m^3 of waste (cca 35.000 tons of balky and solid waste) was collected on the Doboj city territory, which corresponds to the amount of waste collected over a period of 10 years in normal circumstances. The city of Doboj suffered a great material damage in terms of property, objects and human victims. Surreal efforts are necessary to bring this kind of state at least partially to the level it had before the flood, and revive industries present in the past.

From the point of view of UC "Progres" a.c. Doboj, a utility company employing expert workers successful in maintain the city clean and "green", it is important to note that this company has problems with lack of machinery for conducting their usual jobs, because the one they own is partially outdated and partially completely destroyed in the floods. The citizens of Doboj are the best confirmation that this city is clean throughout the year and it surfaces are green (in spring and summer); however, how to continue to do so today and in the future without the necessary machinery. How to protect the health of residents? Who can guarantee us that in the following period there will be no floods, landslides, earthquakes and other elementary disasters? After a series of questions and everything else related to issues mentioned earlier there is a structural discussion suggesting all measures of precaution to set a "dam" or a supporting wall' between the city of Doboj and the presented problems.

From UC "Progres" a.d. Doboj angle, as the only authorized utility representative for managing communal waste in this city and Doboj region, after a wide range of analyses the expert team of this company conducted in cooperation with experts of nearby and foreign countries, a conclusions were reached pointing at the equipment this company (and Doboj) needs in order to solve the existing state caused by the flood, but also the equipment which could serve for future disaster, and which includes:

- Loading machinery for loose materials (sand, gravel), and loading of all other types of waste (bulky waste in conditions of elementary disasters, such as solid waste which was loaded during the flood in Doboj, and which caused a great damage on working machinery);
- Dredges which, in emergency conditions and for prevention of elementary catastrophes, can be used for all purposes of land, rock an underwater digging and terrain breakthrough. It means this kind of specialized working machinery will help UC "Progres'a.c. Doboj to dig, load material, transfer and lift away cargo, building banks, rough surface evening and planning;
- A bulldozer which would speed up the renewal process after elementary disasters, and make the waste easier to "group" and transport by loading trucks further to the garbage depot Doboj;
- A compactor which would maximize the use of garbage depot space in order to repair the existing "overloaded" Doboj city depot. Besides, this machine will reduce the amount of waste at the depot (by squashing) and minimize the danger of fires and thus protect the environment;
- Trucks which would ease the burden of waste created in the period of elementary disasters, but also accomplish everyday business assignments and cargo transport (dipper, tank, tow truck).

Each covering of the local depot leads to accumulation of the so called "unused supplies" of secondary materials which prevent unobstructed waste reproduction cycle.[240] However, if in this concrete case we talk about waste made after the great flood in Doboj, it includes all kinds of waste i.e. unsorted waste (metal, bulky furniture, electric appliances and etc.) which partially contributed to devastation of this depot. How to return the Doboj city garbage depot into the state it had before the great flood? In what way can we use an important part of the waste which cannot be biodegraded and threatens to block further existence of this depot Doboj cannot function without? Besides the mentioned issues which support discussion there is an entire range of similar questions which dispute on the citys' depot survival and threaten to cause greater problems in this city.

So, in order for the city depot to function, and the legally regulated communal waste transport stay possible on this depot, it is necessary to do the following:

- Conduct a supply of machinery for waste reduction-mobile depot reparatory of 30t/h capacity (for more details go to www.tehnix.com);
- Supply two bulldozers for groping and compressing waste st the depot;
- Supply mobile recycling besides the one UC „Progres" a.c. has at Poljice bb, next to Doboj-Tuzla highway to conduct separation of all secondary materials (cardboard, plastic, milk cartoons, plastic bottles) which could be used in a new cycle of reproduction at the city depot, then to separate metal as well as dangerous components which can be reported to sanitary services in order to be taken care of;
- Supply the so called gas generators which would degrade organic components from communal waste, and produce depot gas to serve as producer of electric energy for the depot. The depot gas contains 44% of methane A machine (gas generator) installed this way would be used to generate electric energy thanks to a source used as a depot gas from the city depot.

Based on that, the city depot suffered great load of bulky waste in emergency situations (the recent great flood). In order to repair this depot besides the mentioned machinery, it is also necessary for the local community to engage more and cooperate with the management of UC "Progres" a.c. Doboj.

The local community can be an important strategic partner as a guarantee in cases of applying for EU grants. We suggest to the city of Doboj to apply for these grants because EU funds can give us utility machinery which will not only keep the city "green" but also protect the population. The reason to apply for the grants lays in the fact that IPA 2007-2013 project still has a meaningful amount of financial resources, with a deadline to use before 2016. UC "Progres" a.c. Doboj could have the goal to hire renown consultants for Logical matrix construction an other components for the project application, while the city of Doboj should step forward as a guarantee of this projects' realization.

The most important aspects of research results

The research for this paper was realized in June 2014 at the City of Doboj, on a sample of 115 small and medium enterprises (N=115). For the purpose of conducting a quantitative research the method of random sample was used. The data were collected through a questionnaire (structured in a form of open questions, which asked for participants' personal opinions) which has characteristics of a qualitative research. The questionnaires were delivered to the surveyed by e-mail, but also in person, and a great support in concrete realization of research was received from the Agency for development of small and medium enterprises city of Doboj.

[240] The notion concerns the following typs of unsorted communal waste: unsorted household waste, industrial waste, company waste, organic waste and wooden waste, and all other types of bulky waste.

The questionnaire used for the research contained questions concerning the extent of direct and indirect damage in the enterprises, the estimated number of working days necessary for restarting the business, and the number of workers that needed to be fired due to downsizing of business activities. Also, within the research we tested the attitude of the entrepreneurs on potential ways of help to the enterprises which were damaged in the floods.

As a research result in the following part are basic recommendations of the surveyed small and medium enterprises in order to overcome current difficult situations in Doboj and which were a consequence of May 2014 floods. The presented recommendations which are under the jurisdiction of the local community are mostly conducted, while in the period of this papers' creation we are still waiting for an adequate reaction in the jurisdiction of the Government of Republic of Srpska.

Right after the disastrous flood the city of Doboj undertook a series of activities in providing certain benefits for legal subjects in order to ease the recovery of business activities. Concrete measures of decreasing and removing flood consequences (damage) the Assembly of Doboj city made a series of decisions wherever there was a legal opportunity to reduce fees and taxes on the local level including the following:

- Decision to amendment the Decision on citys' administration taxes ("Official Herald of the Doboj city" No. 5/14) in terms of tax-free period for all citizens, legal subjects and entrepreneurs, and which refers to requests for damage repair caused by a catastrophic flood. The Decision predicted a tax-free period until December 31st, 2014;
- Decision to amendment the decision of tax-free on paying rent for use of office spaces, garages and public surfaces in possession of the city of Doboj ("Official Herald of the Doboj city" No. 7/14) , which includes the period from May to December 2014 when the city of Doboj pays rent for renters whose office spaces, garages and public surfaces have been flooded;
- Decision on paying fee on rent, regulation of citys' construction land and turning agricultural into construction land for all citizens whose housing units were damaged or destructed by landslides ("Official Herald of the Doboj city", No. 7/14) which authorizes the Doboj Mayor to engage financial funds for paying fee for rent and regulation of citys' construction land for citizens whose housing units were damaged or destroyed by landslides, and for construction of a new housing unit in dimensions and at the approximately same location of the damaged or destroyed object;
- Decision on determining a tax fee on property in Doboj city area in 2014 ("Official Herald of the Doboj city" No. 7/14) which regulates that tax-payers whose property was damaged by the elementary disaster (flood) are free of charge from July 1st 2014 to December 31st 2014;
- In terms of reducing consequences of damages The city Assembly made a Decision on credit obligation, with the intention of repairing housing units for citizens, independent contractors and business companies (at this moment we still wait for a positive opinion on this decision by the Ministry of financials of Republic of Srpska).

For all other benefits, which are not under the jurisdiction of the city, an official letter was sent to the Government of Republic of Srpska suggesting certain changes of legal regulations as well as a possibility of introducing certain benefits for business-real sector in terms of:

- Starting a procedure of urgent change of Laws on regulation of land and construction and the Law on utility activities, so business subjects can have the opportunity of reducing taxes/fees;
- Renegotiation of credit obligations for business companies with a minimum 6 months deadline;
- Changes in Law on renegotiating tax debt and extending the same for a period of 5 years;
- Subsidization of purchase of new cash registers for flooded business companies;

- Important reduction of tax charges for the city (charges for woods, waters, anti-hail protection, etc.);
- Liberation of dividend from taxes on capital interests;
- Liberation of paying direct and indirect taxes to potential investors and similar.

Conclusion

Catastrophic floods which struck Republic of Srpska, BiH and the region in May 2014, by its destruction shed a great shadow on economic expectations in short-term as well as long-term sense. The consequences of natural disasters can be seen through various dimensions, though in the moment of analysis the official data on size and structure of damage were not published. Despite the fact this represents a limiting factor it is possible to predict potential scenarios of future tendencies in the national economy. It is realistic to expect that the first effects of floods will be negative on the local production, especially because the companies located in the flooded areas are directly hit and must reduce or even stop production for a certain period of time. However, long-term effects might be a bit brighter because we can expect a greater activity in the construction sector which could influence supporting and related branches, most of all construction material production and wood processing industry.

It would be desirable that the measures by the Government for reducing negative effects of floods could include tax benefits for business companies which were directly hit by floods, while in the financial domain it is necessary to animate commercial banks to postpone or renegotiate obligations which flooded companies have, in order to help them recover. As one of crucial measures it would be starting Solidarity fund (Help fond) or similar on local ore even regional level. The primary source of those funds should be the local tax or just a contribution pay by citizens of local communities in order to repair and prevent damage. In contrast to Republic solidarity fund which would be an institutional reflex of temporary and social character the funds on local level would be opened when needed, and would have more elements of financial justification. In other words, having in mind that the Fund would be created by the citizens directly or indirectly endangered in cases of elementary disasters, they would feel that paying is more justified and would be willing to pay. People are more willingly to pay a fee if the justification of the counter fee is greater and more direct later. It is certainly easier to do so on the local level than on the republic level. Experience of certain countries, such as Germany, point out that is one of the most efficient ways of systemic insurance and sudden material loses. For example, recent floods in Germany caused enormous material damage but were rapidly repaired thanks to resources from that fund which were more than enough for the purpose. Developed EU countries in similar situation have covered up to 75% of estimated damage through insurance companies. So it is necessary for Republic of Srpska and Bosnia and Herzegovina in general to solve at least the insurance of the state and public companies' property in a systemic way, and educate the citizens of benefits of property insurance.

Reference list

27. Babić, M. and Lukić, Z. (2009). *Management theory, institutional aspects and corporative management*. Banja Luka: Faculty of Economics

28. Collaboration center for research of epidemiologic catastrophes. (2009). *EU strategy for support of risk reduction of catastrophes in developing countries, Brussels.*

29. *Decision on determining a tax fee on property in Doboj city area in 2014.* (2014a). "Official Herald of the Doboj City" No 7/14. Doboj

30. *Decision to amendment the Decision on citys' administration taxes.* (2014b). "Official Herald of the Doboj City" No 5/14. Doboj

31. Đukanović, A. and Stjepanović, V. (2013). *Doboj: monography*. City of Doboj

32. *Elaborate no estimated damages in Doboj city area caused by elementary disaster (flood).* (2014). Commision for damage from elementary disasters evaluation. The City of Doboj

33. *Information on current problematic of economy state in Doboj City area with reference to fulfilled results of economy subjects' business according to the annual account of 2012.* (2013). Department of economy and social activities City of Doboj.

34. *Integrated strategy development of Doboj Municipality 2011-2020.* (2011). Municipality Development Team, Doboj.

35. *Law on development of small and medium-sized enterprises*. (2013). "Oficcial Herald of Republic of Srpska". No 5/13. Banja Luka

36. Milisavljević, M., and Todorović, J. (1995). *Planiing and development company policy*. Beograd: Contemporary administration.

37. *Revision report of performance-flood prevention in FBiH.* (2013). Sarajevo: Revision office FBiH

38. *Socio-economic analysis of Doboj Municipality.* (2010). Doboj: Municipality Development Team

IMPORTANCE OF PROCESS PERFORMANCE MANAGEMENT FOR PERFORMANCE IMPORVEMENT – SPLIT AIRPORT CASE STUDY

Marko GUDELJ, univ.spec.oec[241],
Željko GARAČA, PhD[242],
Dino PAVLIĆ, mag.oec[243]

Abstract

In an increasingly competitive environment, the organization's success depends on its ability to achieve efficiency through effective management of its own processes. Today, the concept of business process management and commitment to making that concept effective, is an integral part of any serious organization - an organization that wants to become and remain competitive.
The subject of this research is the application of the process intelligence concept as a specific form of business intelligence on the issue of business process management. Process Intelligence delivers unique combination of corporate and process control at the strategic, tactical, and operational level. If key performance indicators deviate from anticipated values, the causes can be analyzed within business processes. Corrective action can then be taken in real time even before live operations are impacted.
In developed countries, there is almost no company whose business is not computerized. Huge amounts of data and complex business processes imply that without the information technology business is almost impossible. In line with the trend of information society there is a need for specialized software tools for business processes management as well as process performance management.
Split Airport is one of the examples of organization that deals with their business and their business processes successfully, and thus meets the requirements of the market. The author of this research has initiated a project at Split airport to create study measuring the success of their own business processes by using process intelligence concept. Key business processes of the Airport were selected as a scope of the project - handling process (arrivals / departures) of passengers and aircraft. The selected tool for the particular case study is the ARIS Process Performance Manager (ARIS PPM), a tool of the technology platform (ARIS) that is intended for automatic measurement and analysis of actual business processes.
This paper demonstrates how the system of business process performance management helped Split Airport in adjusting and optimizing business processes as well as the fact that this directly affected the achievement of competitive advantage and additional earnings.

Keywords: *Business intelligence, process intelligence, business process management, process performance management, business analysis*

[241] Software AG Adriatics - IDS Scheer d.o.o., Ivana Gundulića 26A 21 000 Split, Croatia, marko.gudelj@softwareag.com
[242] Faculty of Economics, University of Split, Cvite Fiskovića 5, 21 000 Split, Croatia, garaca@efst.hr
[243] Faculty of Economics, University of Split, Cvite Fiskovića 5, 21 000 Split, Croatia, dpavlic@efst.hr

INTRODUCTION

In an increasingly competitive environment, the organization's success depends on its ability to achieve efficiency through effective management of its own processes.

The research problem is the area of process organization and business process management. Executive directors of the world's leading organizations do not identify innovation in products and services as a main success factor, but emphasize innovation in business models within operating or control processes as a factor which should bring market growth. In developed countries, there is almost no company whose business is not computerized. Huge amounts of data and complex business processes imply that without the information technology business is almost impossible. In line with the trend of information society there is a need for specialized software tools in order to make it possible to effectively manage business processes. Recently, tools for business process management were ranked as the number one technology that will have a major contribution in helping IT managers implement and support the company's business strategy.

Guided by these and similar considerations, Split Airport Board decided to improve its operations. Split airport had 1,752,000 passengers in 2014 and has a constant annual increase in traffic. Geographical position of the airport prevents the expansion of capacity in terms of construction of additional runways and associated facilities. All these facts have influenced the decision of the Board to improve its business processes and thus ensure the necessary factors to fulfill market requirements.

The author of this paper has initiated a project to perform a research measuring the success of Split Airport business processes. Key business processes were selected as the scope of the analysis – passenger service and aircraft ground handling process (departures, arrivals). Technological solution used for the analysis is presented within this paper - ARIS Process Performance Manager (ARIS PPM), a tool of the technology platform (ARIS) used for automatic measurement and analysis of actual business processes.

The subject of this research is the application of process intelligence concept as a specific form of business intelligence on the issue of business process management.

The main objective of this research is to investigate the possibilities and effects of the application of business intelligence systems and specialized software tools on the improvement and management of business processes by using the case study of the Split Airport. Case study shows how the business process performance management system helped Split Airport in adjusting and optimizing business processes and how this directly affected the achievement of competitive advantage.

BUSINESS PROCESSES AND PROCESS PERFORMANCE MANAGEMENT

2.1. Business Process Management

Business process is a procedure relevant for adding value to an organization (Scheer and Nüttgens, 2000). Business process management (BPM) as a concept lies between IT and management, and its methods and techniques are used to design, control, and analyze business processes of enterprises and related employees, segments of the organization, applications, documents and other sources of information (van der Aaist et al., 1990). BPM is a management model that enables the company management to manage its business processes as well as any other company assets, and to improve business processes (Smith and Fingar, 2003). If this concept is carried out manually, it should not differ from the traditional concept of improving business. This is where specialized software tools come in, that make BPM activities faster and cheaper. BPM has been increasingly recognized a driver for innovation in a digital world (vom Brocke and Schmiedel, 2014).

The first step in effective business process management is the identification and modeling (graphical representation) of business processes of the company (Jeston and Nelis, 2014). Business process modeling means the creation of graphical models and diagrams, when the process is defined in the form of process map by using various types of objects (Homees and Reijswoud, 2000).

Business process measurements definition depends on each company's characteristics. In order to re-evaluate measurement activities, it is necessary to identify exactly how performance measurement can lead to overall improvement of the effectiveness and efficiency of business processes. Only then it is possible to identify a minimum set of performance measures that will enable the greatest return on their investment of implementation and maintenance of the measuring system. The true meaning and value of the measurement system is realized only when the values obtained are compared with other values. This determines the current real level of performance, which are the most critical and which are the best segments of organization (Scheer, 2006). For the measurements system to successfully control the performances, it should be a part of the whole control mechanism (Boland and Fowler, 2000).

2.2. Business Intelligence

There are many definitions of business intelligence, below are some of them.

Liautaud (2001) suggested that intelligence raises the information within the organization to a higher level. Intelligence comes from a full understanding of information, previously taken and existing opportunities and options. Once sown, intelligence will spread itself within the organization.

Moss and Atre (2003) suggested that business intelligence is neither a product nor a system. It is architecture and collection of integrated operational applications and decision support applications and databases that offer an easy access to business data for business community.

Murfitt (2001) on the other hand states that business intelligence is a method for delivering the right information in the right format to the right people at the right time. A good business intelligence system collects information from all parts of the company, analyzes them, prepares required reports and sends them to people who need them. In this way, each individual receives information "tailored" according to his needs.

Kalakota and Robinson (2001) suggested that business intelligence is a group of applications designed so that they can organize and structure data on business transactions in a manner that enables the analysis useful in supporting decision making as well as within operational activities of the company.

Badami (2003) defined that business intelligence is the process of collecting the available internal and external relevant data and their conversion into useful information that can help business users make decisions.

Akash and Ravi Chandra (2003) suggested that business intelligence is used to characterize those business approaches that aim on converting the desired results in reality. Prominent global companies realize business intelligence as a tool that enables their employees make the best possible decisions in the shortest possible time, with a high degree of reliability.

The concept of business intelligence is based on the following basic ideas (Doran, 2003):

- The intention of the concept of business intelligence is not making a greater amount of information, but only generate better, higher quality information necessary for making business decisions.
- Business intelligence provides users only the information they need, given timely and reported in a way that suits them best.
- If applied properly, the concept of business intelligence will reduce the amount of information to which the company employees are exposed, at the same time increasing the quality of that information.

Traditional decision support systems generally do not personalize information, and therefore should be changed or adjusted in each new application (Hackathorn, 2001). Business intelligence makes way for "new wave" of decision support systems, and knowledge management systems by working by the model that consists of five major components (Panian and Klepac, 2003):

- Information
- Analysis and segmentation
- Personalization
- Multi-channel information delivery
- Actions, interactions and / or transactions

2.3. Process Intelligence

The modern business environment demands from companies investing great efforts on increasing the efficiency of processes that have a direct or indirect impact on the financial performance of the company (Weske, 2012). There are adequate methods and tools that enable company’s greater sensitivity and faster response to specific business events, eliminating the bottlenecks in decision-making (Lientz and Rea, 2001).

The convergence of business intelligence and business process management software leads to the creation of so-called business process intelligence which means the application of business intelligence in the management of business processes (Felden et al., 2010). An important aspect of the process intelligence is performance management very close to real time, not only the measurements of historical efficiency. "Looking into the mirror" and investigating what and how happened in the past will be, in fact, often of little or no help in efforts to optimize future activities.

By analyzing key performance indicators (KPI) and connecting them with the actual business processes, process intelligence brings a new dimension to corporate governance. Performance and success of business process is transparent at all times. If defined key factors of success are not met,

the source of the anomaly in the business can be immediately identified and resolved, meaning that management no longer has to wait for the end of the quarter to see if goals are not achieved. Crisis management is replaced by the ability to correct errors in the business before the business performance of the companies was affected by the crisis. The performance of the business is usually associated with the financial success of the company's business, such as revenue, cash flow etc. However, it is mostly not possible to affect these directly, since they are the result of business processes that represent the operational activities of the organization. In order to enhance and improve business performance, organizations must focus on the efficiency and effectiveness of business processes. By analyzing the resources used within the business processes, it is possible to reduce the cost of business processes while focusing on key customers may increase customer satisfaction, and thereby increase revenue of the company.

A step further in the perspective of process intelligence was made by company IDS Scheer (Software AG) that developed a methodological approach to business process management from business strategy to control. Today it is considered that this model is the starting point of the new strategy as a way of integrating appropriate technologies to be used in order to address the issue of the effectiveness of business processes. The creation of the intelligence of business processes should be considered first and major step of building a complete business process performance management network.

ARIS PROCESS PERFORMANCE MANAGER AND PROCESS INTELLIGENCE

IDS Scheer has been a leading manufacturer in the category of tools for business process modeling and consulting services to support each stage of the life cycle of business processes management - from design, modeling and analysis to implementation, monitoring and optimization. IDS Scheer has its own methodology - ARIS Value Engineering (AVE) whose author is the founder of the company, A.W. Scheer. AVE analyzes enterprise architecture from the perspective of the organization, functions, data and products / services, and these four perspectives are combined within the process perspective.

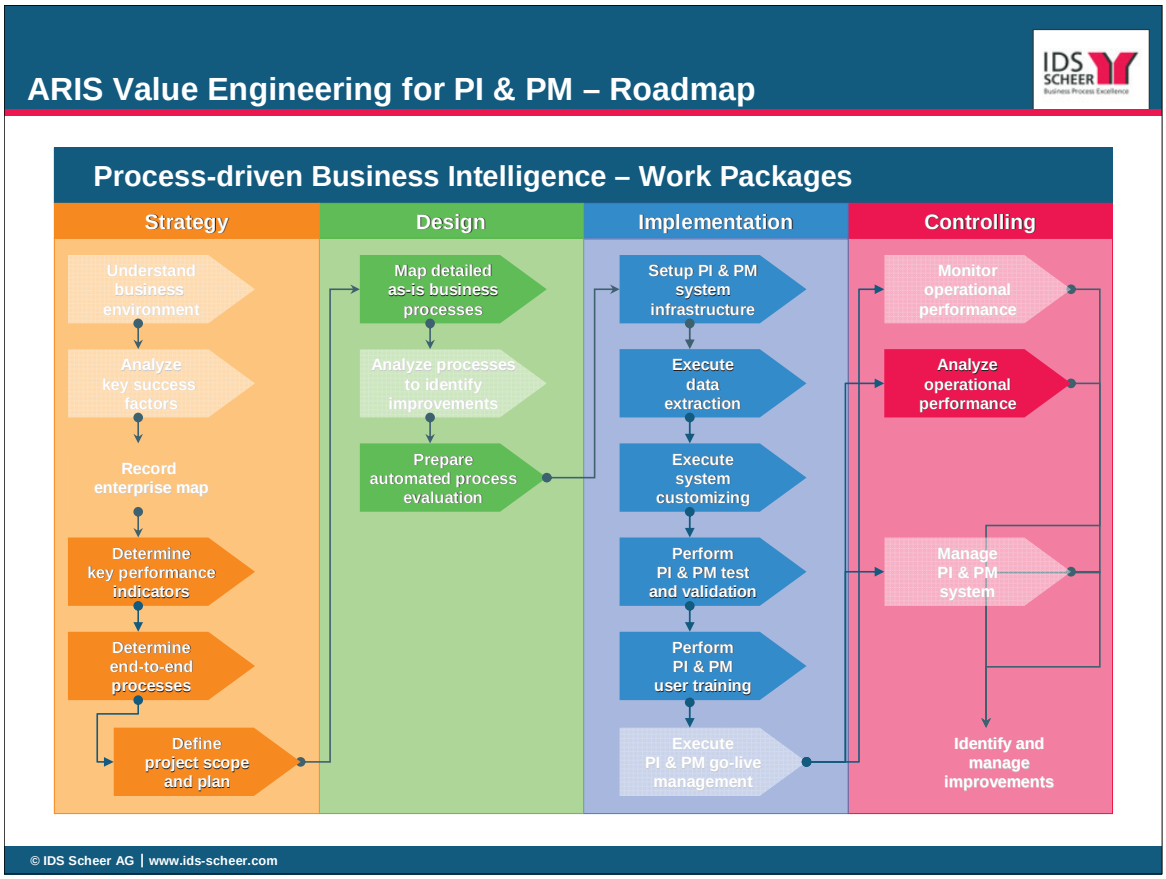


Figure 1. ARIS Value Engineering for PI & PM Roadmap (source: Software AG website)

Business process management and process performance management are two methodologies that are closely related, and their final goal is to improve the business processes of each department and each employee that will ultimately bring the performance improvement of the business processes.

ARIS PPM automatically generates a graphical representation of business workflows from the actual processes (Blickle and Hess, 2009). To do this, process-relevant data is extracted from the operational IT systems and combined, making it possible to reconstruct each transaction from start to finish. By analyzing the operating performance of the key factors and connecting them with the actual business processes, process intelligence brings a new dimension to corporate governance. The effectiveness of business processes is transparent at all times. This approach makes it possible to measure the success of the business, considering that you cannot improve what you cannot measure.

Some of the key benefits ARIS PPM brings are:

- Discover end-to-end processes automatically across different IT systems
- Monitor and analyze the performance and structure of business processes
- Identify best practices and specific optimization measures
- Optimize team and collaboration structures
- Easily analyze variations in standard processes
- Model as-is processes that provide real-life visualization of processes

PROCESS PERFORMANCE MANAGEMENT – SPLIT AIRPORT CASE STUDY

4.1. About Split Airport

Split Airport was built and opened for air traffic on 25th November 1966. In 2014, the airport followed Zagreb Airport as the second busiest airport in Croatia handling 1,752,657 passengers that year. Split Airport has season character, with Saturdays being the busiest day of the week during the summer season, serving 200 airplane operations and 25,000 passengers (source: Split Airport website).

The history of BPM in Split Airport started back in 2002, when business process repository was formed. After mapping “Passenger Service and Aircraft Ground Handling Process”, Split Airport performed analysis of process time and cost as well as forming balanced scorecard.

4.2. Split Airport problem definition

Summer season has the main impact on traffic at Split Airport. Airport is located in a specific territory, geographically bordered by mountains on one side and the sea on the other, which makes expansion or construction of new runways impossible.

It is these above facts that "forced" airport management to optimize their business, and initiate the project to measure the success of their own business processes. Considering “Passenger Service and Aircraft Ground Handling Process” is the key process, it was selected as the scope of this project.

During the implementation, it was necessary to use the existing process documentation of the Airport, established in the form of ARIS repository of business processes. Therefore, technological solution used for this project was ARIS Process Performance Manager (ARIS PPM) - tool on the same technological platform designed for automatic measurement and analysis of actual business processes.

This project used a proven methodology ARIS value engineering. It contains a combination of a clear consulting approach based on the life cycle of business process management, formed by experience on numerous projects.

The purpose of the project was to enable Split Airport ARIS solution for Process Intelligence and Performance Management – for measurement, analysis and optimization of business processes. Ultimately, Split Airport had to achieve the possibility of a continuous process improvement.

4.3. PPM implementation at Split Airport

4.3.1. Strategy phase

Strategy phase began with the definition of strategic objectives, identification of performance indicators and end-to-end process. All requests were stored in the central ARIS repository. This phase is realized through several "work packages" that had to be linked within the ARIS repository.

Understanding the business environment is crucial to identify the critical success factors, objectives and scope of the project. It was necessary to learn about the airport business and their obligations towards airlines.

After that, business process map was defined during the strategic workshop with Airport management. Process map presents a high-level description of Airports' control, main and support processes. Definition of the process map makes it possible to focus on a specific business segment that is interesting for the measurement.

Process selected for measurement was “Passenger Service and Aircraft Ground Handling Process”, as the most important process of the Airport. It includes all the activities associated with passengers and aircrafts from the moment aircraft lands until the moment it takes off. Airport has different obligations for different airlines, which meant that certain airlines have agreed „turnaround time“ from 30 up to 60 minutes.

KPI's for this process were calculated based on real operating processes performance from existing IT systems. KPI's were defined within KPI hierarchy tree in ARIS, and were grouped into categories such as time, cost, risk and volume. Some of the main KPIs to measure the performance of the process were:

- The duration of the entire turnaround process
- The duration of each phase (activities) of turnaround process
- Time gap - the time between different activities

Besides KPI's, a certain number of dimensions was defined. Dimensions are used for filtering or classifying information into certain categories. By using dimensions, KPI analysis becomes a lot easier, but also more precise and focused. For instance, this enables to analyze the duration of the turnaround process for a specific airline in a specific day of the week and for the selected number of passengers. The key dimensions used were:

- Airlines
- Day of the week
- The size of the airplane
- Number of passengers
- Flight length

4.3.2. Design phase

The focus of this phase was the preparation of solutions for implementation. The key process that affects the performance of Split Airport was divided into sections that correspond to specific data for time periods of process execution within IT systems. Analysis views, templates for reports and dashboard were also defined.

First of all it was necessary to prepare the process for measurement. This means methodological preparation and process design in ARIS repository including all the details and attributes required for ARIS Process Performance Manager tool.

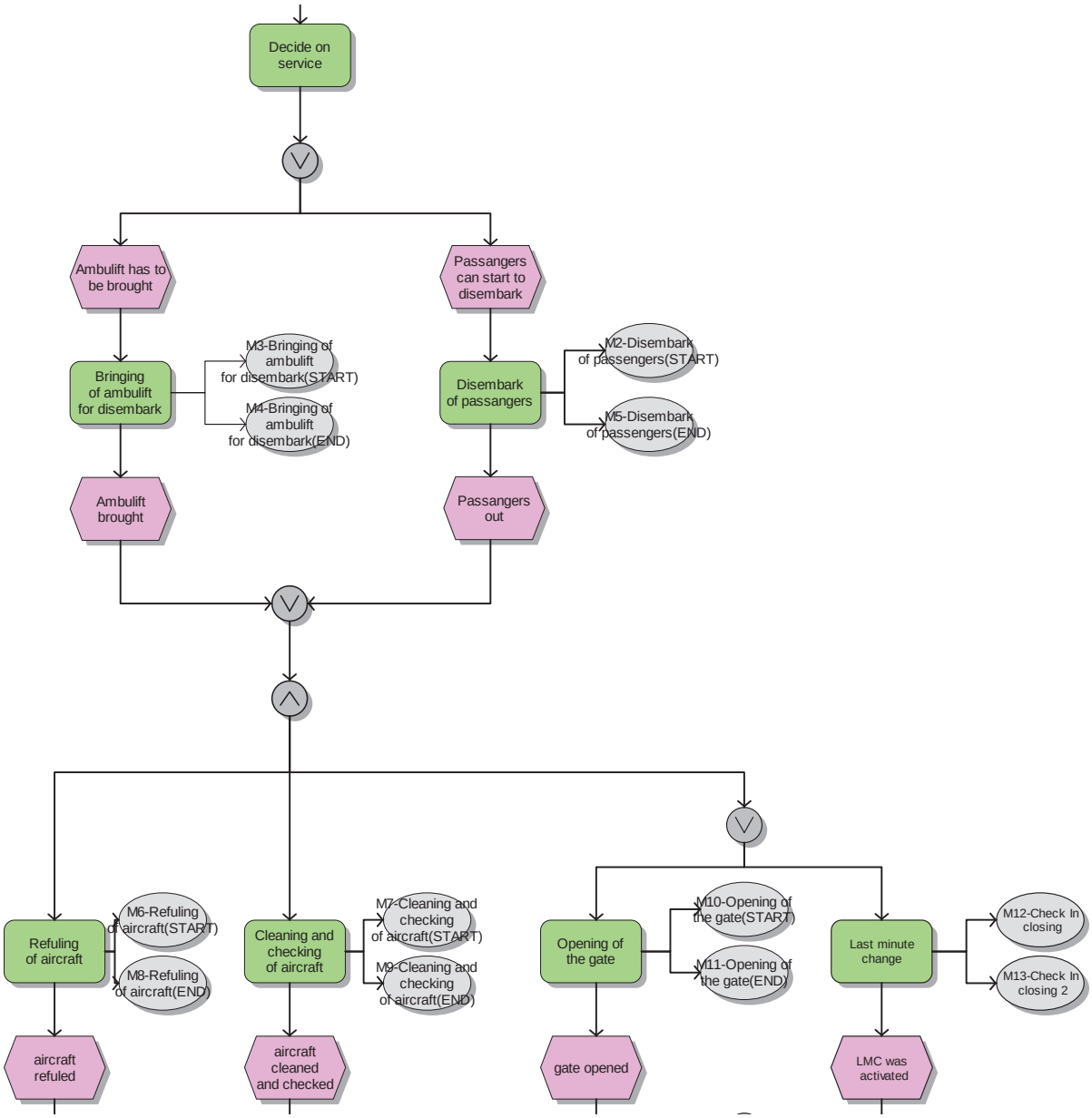


Figure 2. Part of process prepared with PPM attributes

Overview dashboard was made available to senior management of the company. It included control indicators management can use to easily notice business segments that are running critical – and this calculation is based on comparing KPI values taken from the real data (IT systems) with their planned values.

Figure 3. *Split Airport Dashboard*

4.3.3. Implementation phase

The result of this phase is tested and integrated solution that is developed from comprehensive measurement and analytical tools in a series of iterative steps. This is followed by employees training for the appropriate roles for the purpose of preparation for operational work. In operational use, the solution automatically collects data and continuously records and measures the performance of the process. This forms an extensive knowledge base, providing immediate insight into the efficiency and quality of "live" business processes.

The implementation phase includes a detailed understanding of the Airport's system architecture and setting up an interface with Process Performance Manager tool. This means getting to know the applications in charge of the operational processes, databases used, as well as the definition of data extraction method by using the appropriate extraction tools and methods.

It is necessary to initially boot, configure and test the system in iterative steps. It is also necessary to test the system and perform training for the system users. System architecture is shown on the picture below. It shows data extraction using text files, .csv files in this case. This means that

the system extracts data in form of .csv files daily, which are than transformed to specific .xml format which is suitable for PPM import. This way, the solution automatically collects data by continuously recording and measuring process execution. This extract-transform-load (ETL) process occurs daily which ensures that Airport's management has fresh information daily.

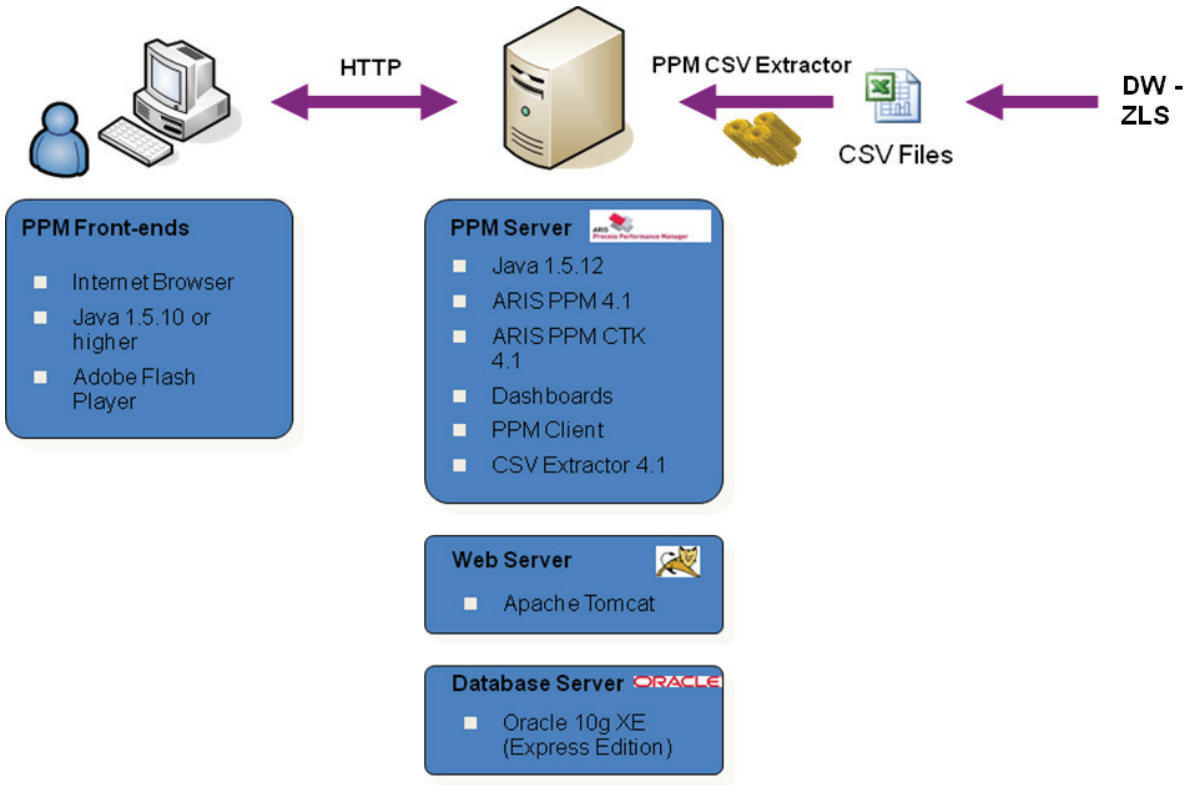


Figure 4. System architecture

4.3.4. Controlling phase

The result of controlling phase is an interface where employees can monitor objectives realization by using intuitive dashboards and automatic reports. This enables process managers to quickly detect process performance gaps and to immediately initiate improvements. Process intelligence technology enables easy control of the actual, live processes based on the graphical representation in the form of a model, facilitating the identification of best practices and potential improvements.

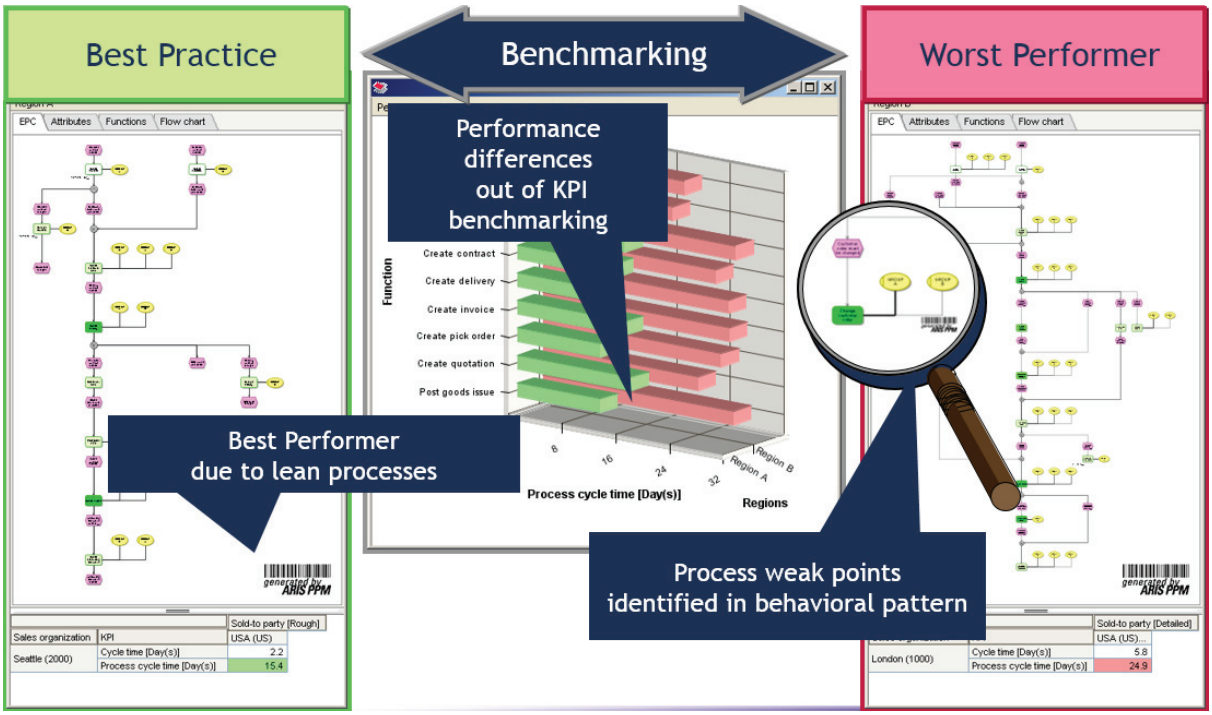


Figure 5. KPI Benchmarking

Managers want aggregated and summarized information that can be easily interpreted and that will give relevant facts to support the business and business decisions making. The overview of key processes of the company with the interactive dashboard lights, trend charts and deviations from planned KPIs (time, cost, quality, quantity, risk) is what management needs to keep the focus on the business processes performance.

The volume of turnaround processes at the Airport is not high (max. 200 flights / process instances per day). Thus the analysis of individual instances may not be the most interesting option - in this case, the aggregation of more flights was more interesting. ARIS PPM enables the aggregation of a desired set of instances, depending on any combination of filters (e.g. all flights of certain airline, on a certain day of the week with more than 150 passengers) and the graphical representation of aggregated instances as well as the values of the average KPIs for the selected instances set.

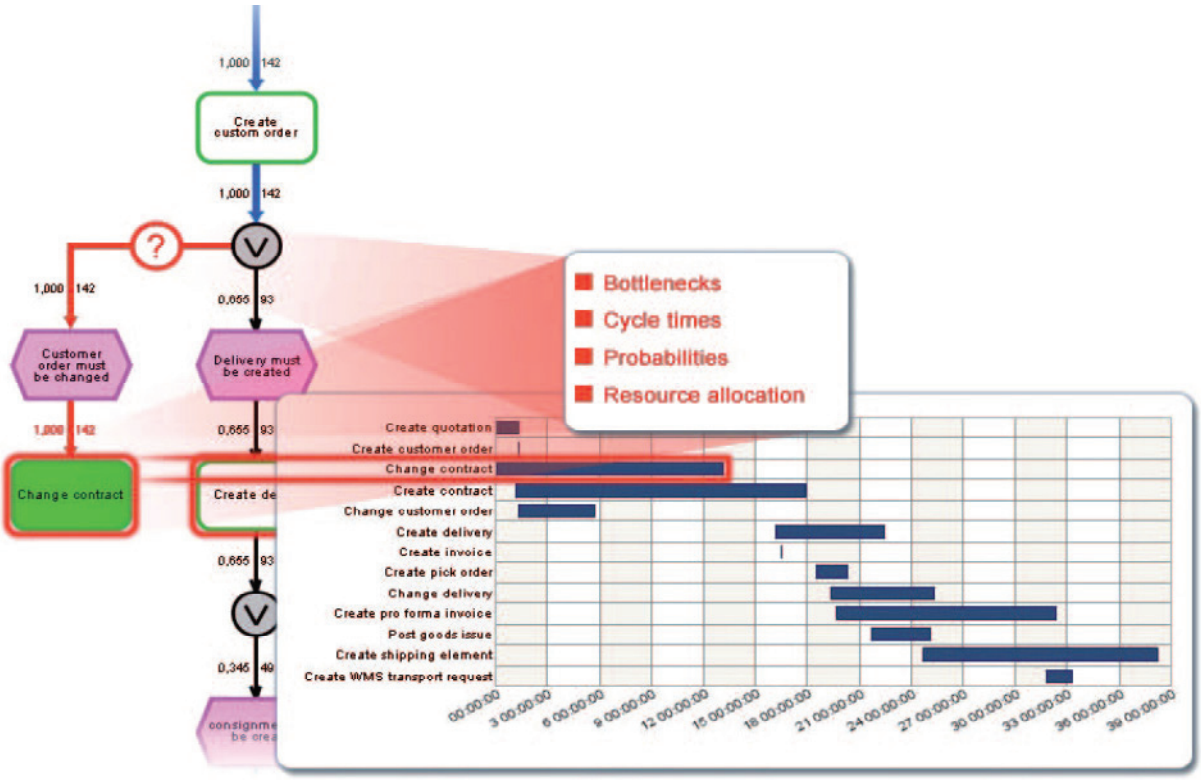


Figure 6. Visualization of process instances and weakness identification

4.4. Results of ARIS Process Performance Manager implementation at Split Airport

If we would summarize the problem that existed at Split Airport in one word only, it would be the word “time”.

Split Airport slowly started losing the war with time, beginning to "slip" in planned activities performance for “Passenger Service and Aircraft Ground Handling Process”, which generated additional financial expenses. It is known that airports have specific turnaround intervals agreed with individual airlines, and any delay (deviation from the agreed value of the duration of the turnaround interval) means extra costs. Constant traffic growth was also present at the Airport, additionally complicating the overall situation.

The airport had a simple goal - to monitor and continually improve process performance. It was defined by a couple of points that were "a challenge" to this project:

- Monitoring of the selected key processes
- Transparent process management and proactive management reporting
- Identification of potential weaknesses and the possibility of optimization
- Measurement of KPIs, such as duration of the process, time gaps, the number of flights, etc.
- Direct access to the actual processes data with all the necessary information about the flight, the size of aircraft, number of passengers etc.

The project ultimately met all the challenges and proved to be an excellent investment for the Airport. The advantages that the Airport received, as well as the ones that enable to monitor, measure and improve business processes are:

- Automated model generation of the business processes
- Automated organization review (each employee involved in the selected process)
- Monitoring of the business process realization very close to real time

- Benchmarking of aggregated image of process instances or an individual flight (process instance)
- Interactive analysis of key performance indicators
- Proactive reporting on the values of key performance indicators
- Established process intelligence system.

CONCLUSION

What is the most important prerequisite of companies' survival in today's turbulent environment? The answer is relatively simple - the information, or more precisely, information that enables timely and appropriate action. In an increasingly competitive environment, the organization's success depends on its ability to achieve efficiency through effective management of its own processes. Without a real understanding of how the process works, and without the description of the business processes, it is not possible to build an efficient organization. The question is: How to optimize something you cannot measure, and how to outline the path where the company wants to be without knowing where the company is now?

Considering the results of the Split Airport project, conclusion can be made that process intelligence presents a synergy of technologies and methodologies that brought objective and quantitative improvements to the company. By using the process intelligence system, Airport has gained process improvement, productivity, quality and profitability by making the process information more accessible and understandable, and directly applicable to business activities. Process intelligence also enabled taking better advantage of the possibility of investing in management methods, information systems and technology infrastructure to improve operational performance at all levels.

Daily use of the system enabled access to information on the business process performance, and by the continuous interventions in critical process segments Split Airport was able to increase the number of processed aircrafts on an annual basis up to 10%, while the violations of allowed processing time of individual aircraft (contracted turnaround time for individual airline) were reduced by an average of up to 40%. Therefore, process intelligence helped Split Airport in adjusting and optimizing business processes which directly affect the achievement of competitive advantage and additional earnings.

In order to enhance and improve business performance, organizations must focus on the efficiency and effectiveness of business processes. Data obtained from the analysis and assessment of real-world processes are important and key indicators to be used in order to measure the performance of companies. By only collecting and measuring key performance indicators without connecting them with business processes, it is almost impossible to improve business performance. Therefore, the tools for managing business processes are imposed as necessary systems that allow daily management of business processes at the strategic, tactical and operational level.

Finally, the convergence of business intelligence software and business process management has led to the creation of business process intelligence, which means the application of business intelligence in the management of business processes. Instead of simple automation of business processes, which has been on the scene for a number of years, the companies aimed towards the future are beginning to realize that the creation of intelligence on business processes can lead to significant reductions in operating costs and a faster return on technology investments.

REFERENCES

1. Badami, V. (2003). Payback on Business Intelligence. Information Management. http://dmreview.com/ (accessed 01.01.2012)
2. Banerjee, A; Pasumarthi, R (2003). Business Intelligence – Key to Success. http://businessinteligence.ittoolbox.com/pub/AB012213.htm (accessed 12.01.2014)
3. Blickle, T., & Hess, H. (2009). Automatic Process Discovery with ARIS Process Performance Manager (ARIS PPM). Expert Paper, IDS Scheer, Germany
4. Boland, T., Fowler, A. (2000). A system perspective of performanse management in public sector organizations. *The International Journal of Public Sector Managent*. 13(5), pp. 417-46
5. Doran, J.L. (2001). Business Intelligence Building Blocks: The Challenge of Gaining Business Insight. http://www.dmreview.com/ (accessed 12.01.2011)
6. Felden, C., Chamoni, P., Linden, M. (2010). From Process Execution towards a Business Process Intelligence. *13th International Conference Proceedings*. BIS. Berlin, Germany
7. Hackathorn, R. (2001). The BI Watch: Making Intelligence Actionable. http://www.dmreview.com/ (accessed 11.09.2013)
8. Homees, B., van Reijswoud, V. (2000). Assesing the quality of business process modeling echniques. *Proceesings Hawaii International Conference on Systems SCI.* Hawaii, USA
9. Jeston, J., & Nelis, J. (2014). *Business process management*. Routledge, UK.
10. Kalakota, R., Robinson, M. (2001). *E-Business 2.0: Road for Success*. Addison-Wesley. Boston, USA
11. Liautaud, B. (2001). *E-Business Intelligence: Turing Information into Knowledge into Profit*. McGraw-Hill. New York, USA
12. Lientz, B., Rea, K. (2001). *Dynamic E-Business Implementation Management.* Academic Press. San Diego, USA
13. Moss, L. T., Atre, S. (2003). *Business Intelligence Roadmap*. Addison-Wesley. Boston, USA
14. Murfitt, S. (2001). Using Business Intelligence. http://www.digitrends.net/scripts/ (accessed 12.01.2013)
15. Panian Ž., Klepac G. (2003). Poslovna inteligencija. Masmedia. Zagreb, Croatia
16. Scheer, A. W., & Nüttgens, M. (2000). ARIS architecture and reference models for business process management (pp. 376-389). Springer Berlin Heidelberg, Germany.
17. Scheer, A.W., Jost, W., Heß, H., Kronz, A. (2006). Corporate Performance Management. *Institute for Economic Information Technology*. Saarland, Germany
18. Smith, H.; Fingar, P. (2007). Business Process Management: the third wave. *Meghan-Kiffer Press.* USA
19. Software AG official website. www.softwareag.com (accessed 11.06.2015)
20. Split Airport official website. www.split-airport.hr (accessed 12.06.2015)
21. van der Aalst, W.M.P., ter Hofstede, A.H.M., Weske, M. (2003). Business Process Management: A Survey. *Business Process Management. Lecture Notes in Computer Science*. 2678/2003 (1019)
22. vom Brocke, J., Schmiedel, T. (2014). *Business process management. Driving innovation in a digital world*. Springer, Heidelberg, Germany
23. Weske, M. (2012). *Business Process Management: Concepts, Languages, Architectures.* Springer, Germany

BALANCED SCORECARD AS A PROSPECTIVE TOOL FOR RISK MANAGEMENT WITHIN THE SOLVENCY II REGIME - THEORETICAL AND PRACTICAL CHALLENGES

Helena Bešter, PhD Student[244]

Abstract

Financial crisis and many failures in financial industry have considerably accelerated regulatory penetration of the finance and insurance industry and the expansion of the regulation culture worldwide. At the same time, regulators, rating agencies, executives and academics have responded to corporate scandals and business fiascos by advocating and embracing a new approach to risk management. Since 2009, when the Solvency II directive was approved, insurance companies around Europe have started the adaptation activities to the new regime in order to reach the implementation date - 1 January 2016. Besides the possible additional capital burdens, the following two qualitative requirements of the second pillar are in the centre of the insurers' attention: integrated risk management and corporate governance. Our study asks whether balanced scorecard, upgraded with the key risk indicators can be a useful tool not only for the formalistic compliance with Solvency II but also for higher efficiency of the insurance companies. The interconnectedness and the cross-section of all three concepts were also examined in the research with the aim to provide important theoretical and practical implications for the insurance industry. In order to find out whether the adaptation to the Solvency II regime is actually a driver to the effective risk management implementation and whether the balanced scorecard can be a useful tool for both of them, we conducted a qualitative exploratory case study on the Slovenian insurance market. The study fills the gap between the evolving theory and the practice of risk management and balanced scorecard. It contributes to the better application of risk management within the Solvency II regime.

Key Words: *Solvency II, risk, risk management, balanced scorecard - BSC*

[244] University of Ljubljana, Faculty of Economics - FELU; e- mail address: h.bester.mp@gmail.com

1. Introduction

Not only Slovenian, but also European insurers face the two cross-sectional, demanding and expensive projects: the Solvency II transformation and the risk management implementation within it. While 1 January 2016 is the current application date, the new solvency regime is actually the hot and the most challenging topic in the insurance industry not only in Slovenia but also on the whole European insurance market. One of the main postulates of Solvency II is that risk management should be effective and well integrated into the organizational structure and the decision-making process of an insurance company. For achieving such a demanding goal the balance scorecard - BSC - can be a useful managerial tool. The implementation of Solvency II, together with risk management and balance scorecard, raises a number of issues: 1) how have the concepts of Solvency II and risk management changed due to the financial crisis? 2) What are the main characteristics of the Solvency II implementation? 3) How to upgrade the balanced scorecard to develop a useful tool for the new solvency regime 4) Do the Slovenianinsurers pursue only formalistic compliance with Solvency II or try to improve business effectiveness?

The combination of the three phenomena: Solvency II, risk management and balanced scorecard (upgraded with the key risk indicators) represents a conceptual model that can contribute to better corporate governance, higher effectiveness and consequently lower capital requirements. In order to investigate how the process of implementation of the Solvency II directive influences the risk management systems in insurance companies and how BSC can be a useful managerial tool for the fulfilment of the Solvency II requirements we have conducted the qualitative exploratory case study on the Slovenian insurance market, based on the semi-structured interviews.

The paper is structured as follows: firstly, in the literature review we cover the Solvency II, the risk management and the balanced scorecard concepts, as they emerged in both academic and practitioner literature. The subsequent section outlines the research design. After detailing the results, we assess the research findings with suggestions for the future research.

2. Critical Literature Review

With the aim to scrutinize deeply the theoretical and practical views of Solvency II, risk management, balanced scorecard and their relations, we examined not only the scientific articles and books but also the professional literature, annual reports of the insurance companies, official documents and working papers, technical standards, web sites, blogs etc.

The Solvency II regime is primarily a regulatory story as described by Altrén and Lyth (2007), Elderfield (2009) and Monkiewicz (2013). According to the public interest theory, the (insurance) market is imperfect and the role of regulation is to address those imperfections. The imperfections generally arise from agency problems and costly information. According to this theory, the need for solvency regulation is based on the classic agency problem of differing incentives between firm owners and debtholders. Insureds are, in essence, firm debtholders and, under certain conditions, are subjected to excessive risk taking by the owners. Information could alleviate agency problems but its acquisition is costly, particularly when debtholders attempt to assess the insurer's product quality, including willingness and ability to pay claims. Furthermore, an insurer can alter its financial strength after a policyholder has paid premiums but before the coverage period ends (Munch & Smallwood, 1981). Such situations can be used to justify solvency regulation. Regulation can improve market efficiency, but it can also yield distortions that ultimately harm the consumer by shrinking supply and/or raising prices (Klein, Phillips, & Shiu, 2002).

Some of the authors dispute the theoretical soundness of the Solvency II regime. Huerta de Soto (2009) argues that Solvency II and Basel II, as well as International Accounting Standards – IAS - are based on the neoclassical financial theory which has now fallen, due to the financial crisis, into discredit. Some of the practitioners, like Fulcher (2013) agree: "Solvency II is ultimately about political objectives rather than being an exact science…however, manipulating the true picture by theoretical fudges is not an answer."

Although the risk management concept is very popular, even fashionable, it is rather ambiguous and complicated from theoretical as well as practical point of view. In classical decision theory, risk is most commonly conceived as reflecting variation in the distribution of possible outcomes, their likelihoods, and their subjective values (March & Shapira, 1987). The same authors also revealed that "the managers see risk in ways that are both less precise and different from risk as it appears in the decision theory. In particular, there is little inclination to equate the risk of an alternative with the variance of the probability distribution of possible outcomes that might follow the choice of the alternative." Upon the findings of several behavioural studies of organizational decision making, behavioural decision research and the behavioural assessment of risk perception, they concluded: "Not only that managers fail to follow the canons of the decision theory, but also that the ways they think about risk are not easily fit into classical theoretical conceptions of risk"(March & Shapira, 1987).

Kloman (1992) argued that risk management itself is a fusion of different skills and specialities, such as "the general management theory, insurance management, the actuarial and risk funding theory and practice, macro risk assessment and the decision risk theory, loss prevention, system safety, and security engineering, crisis or contingency planning and financial risk manoeuvres, including hedging and swaps. "Despite different views on risk, "there is now doubt that risk talk and idea of risk management have become more prominent in recent years," argued Power (2004). Managing risk is a fundamental concern in today's dynamic global environment (Gordon, Loeb, & Tseng, 2009).

Regarding the role of risk management in the Solvency II regime, we have to emphasize that the Solvency II regime is risk based oriented. An insurance company will have much more freedom in everyday business decisions, but risky decisions will be penalized with higher capital requirements. Therefore, Solvency II directive demands from insurers that "insurers should have in place an effective risk-management system comprising strategies, processes and reporting procedures necessary to identify, measure, monitor, manage and report, on a continuous bases the risks, at an individual and at an aggregated level, to which they are or could be exposed, and their interdependencies"(EU, 2009).

Johnsen (2001) proposed two theoretical perspectives on balanced scorecard as one of the most popular management tools: 1) the organization economics perspective of the positive agency theory and 2) the public choice/bureaucracy theory perspective of political economy: "Regarding theoretical perspectives of balanced scorecard, the theories that explain implementation and political competition, are relevant. In this respect, the agency theory and public choice seem as relevant perspectives in studies of performance measurement issues. On the other hand, Hepworth (1998) sketched a different theoretical view of balanced scorecard: "Kaplan and Norton present an innovative management perspective that can be used to translate strategy for growth into operational terms. It represents the beginning of a comprehensive and actionable theory of governance."

The prevailing themes in the existing literature of the Solvency II regime are: the 1st pillar and its quantitative capital requirements, the lessons of the financial crisis (Eling & Schmeiser, 2010) and critical analysis of the Solvency II concept (Doff, 2008). Many articles deal with the

calculation of the solvency capital requirements – SCR – either with the "standard formula" or "internal models" (Vesa, Lasse, & Raoul, 2007), and the consequences of the new regime for the financial market, investments and insurance competition (Butt, 2007; Korbasova, 2014; Schuckmann, 2007). The mainstream Solvency II literature has been relatively silent on the "second pillar" challenges. Moreover, qualitative requirements of the new regime have not been investigated thoroughly, neither from theoretical nor practical aspects. In spite of the fact that Solvency II is "risk-based oriented", articles that deal with both constructs (Solvency II and risk management) are quite rare. However, (Ashby, 2011) investigates the roots of the banking crisis, which was caused by poor risk management and lessons that need to be learned for the insurance regulation. The research, which interconnects these topical concepts: Solvency II, risk management and balanced scorecard is a novelty in the scholar's literature. The combination of the mentioned phenomena represents a conceptual model that can contribute to better corporate governance, higher effectiveness and consequently lower capital requirements.

3. Research Design

In order to investigate whether the adaptation to the Solvency II regime is actually a driver to the effective risk management implementation and whether the balanced scorecard can be a useful tool for both of them, we conducted the exploratory case study on the Slovenian insurance market. If we reinterpret Kaae, Søndergaard, Haugbølle, and Traulsen (2010) the research method is considered exploratory because the aim of the study is to induce new understanding of relationships between structural and process elements in the Solvency II regime and the risk management implementation within, rather than to interpret data according to one adequate theory.

Based on the literature review, the main themes of the in-depth semi-structured interviews were determined. In total, there were 13 interviews conducted across the Slovenian insurance industry. Nine interviewees work for (re)insurance companies (risk managers, Solvency II project managers, chief risk officers and one president of the board), three work for the Insurance Supervision Agency - ISA (the director of the Agency and both of his deputies) and one is an independent consultant and director of the Slovenian ISACA department. According to the premium over 84 % of the Slovenian insurance market and more than 56% of the Slovenian reinsurance market was covered. We performed a comprehensive survey of eight Slovenian insurance companies with premiums written in excess of € 1.5 billion and one reinsurance company with premiums written above € 130 million. Two of the (re)insurance companies are at the top of the insurance group (mother companies); seven are daughter companies – as a part of the insurance group. Two of the nine included companies are owned by foreigners. All interviewees have extensive experience in financial services, especially in the (re) insurance industry and (except one) they are deeply involved in the Solvency II implementation and adaptation. The practitioners, manly risk managers and/or project managers for the Solvency II implementation, work for insurance companies which are very different regarding the size (market share), ownership (Slovenian, foreign) and the role in the corporate structure (mother or daughter company within the (re) insurance group). Despite this fact, some similarities among their answers exist.

Transcribing all of the interviews enabled us a very detailed analysis of the respondents' opinions. It allowed us to compare the statements by the interviewees with the findings from the literature. Such a comparison provided us with the deepest insight into the topic. The data were collected from July 2013 to March 2014.

4. Results and Discussion

Regarding Solvency II, there are many pro and contra views in the scientific and professional literature. Our interviewees from industry and supervisory body saw the new regime as an opportunity and also as a threat. Six out of thirteen are actuaries and consequently expressed a high level of "quantitative enthusiasm", as it is defined by Mikes (2011). However, all of them also pointed out the huge importance of qualitative requirements, especially the potential positive effects of integrated risk management implementation, better corporate governance, improving business processes and the necessity of a higher-level collaboration among the departments. Instead of the current "silo" mentality in the Slovenian insurance companies, the higher level of the corporate governance and risk management culture should be set up, as pointed out by the chief risk officer - CRO in a bigger Slovenian insurance company:

"Due to the Solvency II adaptation we have started to establish a holistic risk management system. We have an ideal opportunity to refurbish all the business processes, inspect our internal controls and introduce the holistic risk management philosophy into organizational culture."

As Brooks (2010) in Fraser and Simkins (2010) pointed out, "the key to culture, in the context of risk management, is the impact it has on business decisions". This was also the topic of the above-mentioned CRO:

"Nevertheless, we have to bring the risk question into every important business decision: 'If I do this, what kind of risk is connected with it?' We will have to change our thinking."

Such a statement is quite similar to the ISA representative's opinion:

"I see Solvency II regime as a holistic risk management approach. We have to have the whole picture – not only for today, but also for the future. Not only on the surface, but also in depth."

This opinion is confirmed by Ashby (2011): "Capital is a tool in the toolbox but it is not everything and knowing your company is much more important than knowing how much capital your company has… As highlighted by the recent banking crisis it does not take long for a poorly managed financial institution to run out of capital, however much it has." Regarding the problems, most of the interviewees pointed out different external reasons, which have caused the implementation of the Solvency II and risk management within it to be very challenging: the over-complexity and expensiveness of the new regime, too much time focusing on the first pillar when only capital calculations were important; bureaucratic procedures and unrealistic assumptions in the standard formula... However, they expressed quite similar internal difficulties, essential for all the companies, included in our research: "non-linked" business processes, a "silo" mentality among departments, boards' unfamiliarity with Solvency II and risk management data problems, lack of appropriate knowledge, the unsuitable information system, the unclear statement of the local supervisor etc. From the big and small (re)insurers we heard quite a similar story about data and information system issues:

"Solvency II is primarily an IT project…The precondition for Solvency II and for integrated risk management is reliable data. We need a time series of good data to assess the prospective movements of the business as well as future risks."

Despite the fact that almost all the companies included in the research, have already established some kind of "risk management system", the Solvency II adaptation process is just the beginning of a long and demanding path towards holistic risk management. As one of the professionals illustratively articulated:

"The second pillar is much more important than the first, this is definite. All insurance companies should have established holistic risk management regardless of Solvency II."

This is not only a Slovenian problem, as it is clearly found in one of the European researches: "Solvency II is a catalyst to speed up the implementation of improvements in risk management developments in the organisations" (ATOS, 2011). The interviewees also pointed out that the activities for risk management implementation are compliance orientated rather than business focussed. In addition, the Solvency II regime with the embedded risk management is so demanding and expensive that it may even jeopardize the existence of the Slovenian companies, which are – compared with European insurers – small and medium size. Some of the interviewees warned against the possible negative outcomes: owing to the new regime, Slovenian insurers could become exposed to hostile takeovers.

With the exception of one, balanced scorecard has been neither recognized nor implemented as a management tool in Slovenian insurers. However, five from eight "non-BSC" insurance companies use some kind of "internal developed" key performance indicators - KPIs. All of them developed their own KPIs according to their strategic goals. Therefore, we can conclude that their internal performance management systems are actually a tool for higher efficacy and better corporate governance. During the interviews, we tried to investigate the interconnectedness of all three concepts: Solvency II, risk management and balanced scorecard and the rationality of upgrading the KPIs with the key risk indictors - KRIs. All of the interviewees confirmed the tight link between Solvency II and risk movement; some of them even regarded the new solvency regime equal to holistic risk management. Balanced scorecard, advanced with key risk indicators (adapted to the Solvency II requirements) would be an efficient tool for better everyday business decisions and consequently lower capital requirements.

5. Conclusions and further research

If we summarize the findings from the in-depth semi-structured interviews and critical literature review, Solvency II is a challenging mixture of political objectives and a myriad of technical, extremely complicated but theoretically weak requirements, with the theoretical and practical heterogeneous concept of risk management embedded into it. All of the interviewees pointed out the prevailing role of risk management within the Solvency II regime. With the semi - structured interviews, conducted with the Slovenian risk managers and Solvency II project managers, we identified high expectations of the professionals that Solvency II would lead to a higher risk culture in the companies, better cooperation among departments and higher risk awareness among employees. Risky decisions will be penalized with higher capital requirements, due to which boards will be more cautious and decision making process will have to be risk oriented. Solvency II represents a good opportunity for better corporate governance with the risk management implementation.

The new solvency regime is "risk-based" oriented and consequently represents a very effective external pressure for the holistic risk management application. However, risk management is not only a "necessary evil." Most of the interviewees see risk management as a useful tool for better and more efficient corporate governance. Many of them are very "quant" oriented, therefore they pay a lot of their attention to the risk quantification, measures, different metrics, risk maps and risk matrices, models etc. They admitted that it is difficult to measure everything but they would like to link the most important decisions, based on key performance indicators, with the key risk indicators. Therefore, balanced scorecard upgraded by the key risk indicators can be a useful managerial tool not only for the formalistic fulfilment of the Solvency II requirements but also for the effective implementation of the risk management system. The model which connects all three phenomena, Solvency II, risk management and balanced scorecard would be very beneficial for improving business efficacy. Better corporate governance and higher business effectiveness should actually be the aim of all these regulatory changes in the European insurance industry. .

Last but not least, the comparison of the interviewees' answers with the literature review findings supports the opinion that the regulators as well as the industry may have been neglecting the human part of integrated risk management. The human part, included into the prevailing calculative nature of the risk management within the Solvency II regime, offers also a wide variety of further research agendas. The research questions would be: 1) Do the risk awareness and perception vary by function? 2) Which type of insurance professionals are most inclined to optimism, overreliance and over self-confidence? 3) How would the possible implementation of the performance measurement system, such as balanced scorecard, impact the risk-based organizational culture in insurance companies? Nevertheless, many corporate failures in the financial industry are connected with the "behaviour deviation" of the managers and/or employees, coupled by the bad risk management structure and culture. With the further research, we can contribute to better application of risk management and balanced scorecard within the Solvency II regime.

6. References

1. Altrén, J., & Lyth, M. (2007). Solvency II-A compliance burden or an opportunity for the Swedish non-life insurance industry?
2. Ashby, S. (2011). Risk Management and the Global Banking Crisis: Lessons for Insurance Solvency Regulation. *Geneva Papers on Risk & Insurance, 36*(3), 330-347.
3. Butt, M. (2007). Insurance, Finance, Solvency II and Financial Market Interaction. *Geneva Papers on Risk & Insurance, 32*(1), 42.
4. Doff, R. (2008). A critical analysis of the Solvency II proposal. *Geneva Papers on Risk and Insurance: Issues and Practice, 33*, 193-206.
5. Elderfield, M. (2009). Solvency II: Setting the Pace for Regulatory Change. *Geneva Papers on Risk & Insurance - Issues & Practice, 34*(1), 35-41.
6. Eling, M., & Schmeiser, H. (2010). Insurance and the Credit Crisis: Impact and Ten Consequences for Risk Management and Supervision. *Geneva Papers on Risk & Insurance, 35*(1), 9-34.
7. EU. (2009). Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (Text with EEA relevance) 335/1. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:335:0001:0155:SL:PDF (accesed 17.12.2009)
8. Fulcher, P. (2013). Conflicting Objectives Led to Solvency II LTG 'Mess'. http://www.solvencyiiwire.com/conflicting-objectives-led-to-solvency-ii-ltg-mess/77967 (accesed 11.09.2014)
9. Gordon, L. A., Loeb, M. P., & Tseng, C.-Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy, 28*(4), 301-327. doi: http://dx.doi.org/10.1016/j.jaccpubpol.2009.06.006
10. Hepworth, P. (1998). Weighing it up - a literature review for the balanced scorecard. *Journal of Management Development, 17*(8), 559-563.
11. Huerta de Soto, J. (2009). The Fatal Error Of Solvency II. *Economic Affairs, 29*(2), 74-77. doi: 10.1111/j.1468-0270.2009.01900.x
12. Johnsen, Å. (2001). Balanced scorecard: theoretical perspectives and public management implications. *Managerial Auditing Journal, 16*(6), 319-330.
13. Kaae, S., Søndergaard, B., Haugbølle, L., & Traulsen, J. (2010). Development of a qualitative exploratory case study research method to explore sustained delivery of cognitive services. *Pharmacy World & Science, 32*(1), 36-42. doi: 10.1007/s11096-009-9337-5
14. Klein, R. W., Phillips, R. D., & Shiu, W. (2002). The capital structure of firms subject to price regulation: evidence from the insurance industry. *Journal of Financial Services Research, 21*(1-2), 79-100.

15. Kloman, H. F. (1992). Rethinking Risk Management*. *Geneva Papers on Risk & Insurance, 17*(3), 299-313. doi: http://dx.doi.org/10.1057/gpp.1992.19
16. Korbasova, P. (2014). Implementation of Solvency II and its potential impact on market of insurance companies. *International Journal of Management Excellence, 3*(2), 436-439.
17. March, J. G., & Shapira, Z. (1987). Managerial Perspectives on Risk and Risk Taking. *Management science, 33*(11), 1404-1418. doi: 10.2307/2631920
18. Monkiewicz, J. (2013). Dialectics of the Current Regulatory and Supervisory Developments in Insurance. *Geneva Papers on Risk & Insurance, 38*(2), 183-188. doi: http://dx.doi.org/10.1057/gpp.2013.8
19. Munch, P., & Smallwood, D. (1981). Theory of solvency regulation in the property and casualty insurance industry *Studies in Public Regulation* (pp. 119-180): The MIT Press.
20. Power, M. (2004). The nature of risk: The risk management of everything. *Balance Sheet, 12*(5), 19-28.
21. Schuckmann, S. (2007). The Impact of Solvency II on Insurance Market Competition-An Economic Assessment. http://www.econbiz.de/archiv1/2008/55451_impact_of_solvencyII.pdf (accesed 02.03.2014.)
22. Vesa, R., Lasse, K., & Raoul, B. (2007). Topical modelling issues in Solvency II. *Scandinavian Actuarial Journal, 2007*(2), 135-146. doi: 10.1080/03461230701257098

MICROFINANCE INSTITUTIONS IN ALBANIA AND THEIR ROLE TO THE ECONOMIC DEVELOPMENT POLICIES

PhD.cand Zoica Zharkalli (Kokaveshi),[245]

Abstract

Microfinance institutions in Albania have been come increasing during these 25 years of transition. The reasons for this development are numerous, but the main focus in this paper will be the analysis of the impact of these institutions on economic development in our country.
One of the reasons why there is so much enthusiasm for microfinance and financial services, especially for microcredit, is that it is a market-based mechanism that has achieved some success where other mechanisms have failed. Regulatory structural programs that promote market liberalization, deregulation and privatization have brought more poverty in many countries over the past quarter century. Traditional private banks are not likely to provide microcredit. Most formal financial institutions, avoid financial services for the poor since they are carriers of a high credit risk and are unable to provide collateral.
Despite of the rejection of the traditional system, people in rural areas require an increasing number of financial services. These financial services support a wide sector contributing to increased levels of employment, economic growth and increase revenues.
While micro and small enterprises expand and integrate into the formal economies of their countries, they empower and transform the lives of the poor in the world, create more jobs and higher incomes, contribute to economic growth and strengthen democratic societies.

Key words: *microfinance, development, Albania, financial services*

[245]Lecturer, "Aleksander Moisiu University", Durres, Albania. Email: zoica_zh@hotmail.com

1. Introduction

In the era of globalization we are living, the dual development challenges consist in achieving economic growth and reduce poverty[246]. The poor live without even the most basic freedom for action and choice. Poverty is the result of economic, political and social processes. It is the result of a lack of the most vital assets, scarce employment opportunities and lack of access to financial markets. Precisely for this reason, in these 25 years of transition in our country were born and developed some microfinance institutions which are intended to contribute to economic growth in poor areas in Albania, providing customers access to financial services required to support their needs to invest and improve their operations.

2. What is microfinance?

Often called the "bank for the poor", microfinance is an enterprise that has proven ability to draw people out of poverty.[247] Based on their ability and instincts, poor people use small loans, other financial services and support from local organizations called microfinance institutions (MFIs) to launch, support or expand very small individual businesses.

Unlike other loan programs, microcredit does not require customers to have collateral, be employed or have a credit history to have the opportunity to borrow. These facilitations enable people to take out loans that otherwise would not be possible to deal in traditional financial institutions.

Microfinance is more than microcredit, including a range of services such as:

- microcredit
- micro deposits
- insurance
- money transfers
- consultancy services
- support programs, etc.

3. Macroeconomic environment in Albania and Microfinance

Macroeconomic indicators of the Albanian economy in the recent years show that the economy has a satisfactory performance. In the below table are given a set of data for the Albanian economy, reflecting not only the macroeconomic environment but in the meantime the financial market development, as a condition for the existence of microfinance.

[246] Sullivan. D. (2006) Mikrondërmarrjet dhe Zhvillimi i tyre.
[247] Christen, R, Lyman, T, Rosenberg, R (2003). Microfinance Consensus Guidelines, Guiding principles on Regulation and Supervision of Microfinance.

Table 1: Macroeconomic indicators for Albania

Year	2005	2006	2007	2008	2009	2010	2011	2012
GDP (US$ on actual value)	8,376,484	9,132,562	10,704,662	12,968,653	12,118,581	11,858,166	12,959,564	12,648,096
GDP increase (annual %)	5.5	5	5.9	7.7	3.3	3.5	3	1.6
GDP/capita	2621	2872	3381	4108	3846	3764	4109	4000
Inflation	2.4	2.4	2.9	3.4	2.3	3.6	3.5	2.0
Registered businesses	1245	1417	2176	3005	2045	2088	N/A	N/A

Source: World Bank 2014[248]

GDP is one of the most important indicators of the economy of a country and as shown above, for our case, this indicator has increased up to 2009, and later has begun to decline as a consequence of the worldwide financial crisis. GDP / capita has followed the same trend as the GDP indicator. Inflation has suffered constant fluctuations marking the highest value in 2010 by signing 3.6% and falling again to 2% in 2012. The number of registered businesses has increased until 2008, after which the decline started further.

Table 2: Main Indicators of the Albanian financial market

Year	2005	2006	2007	2008	2009	2010	2011	2012
Credit registry coverage	0	0	0	6.8	9.9	12.3	17	19.7
NPLs / total gross credit	2.3	3.1	3.4	6.6	10.5	14	18.8	N/A
Domestic credit provided by the banking sector (% GDP)	48.6	54.5	62.1	66.1	68	67.1	69.1	66.5
Credit risk premium	7.6	7.5	8.2	6.8	6.4	7	7	5.7

Source: World Bank 2014

Financial market development in a given country is presented through some of the most important indicators that include: credit registry coverage, % of non-performing loans / total loans, % of domestic credit / GDP and credit risk premium. For our country credit registry coverage, which represents the ratio between adult individuals that have loans to total adult population, has been growing from year to year, reaching 19.7% in 2012. For the previous years there are not recorded data. A problematic indicator which reflects the delicate situation of the financial system in Albania is the percentage of non-performing loans / total loans, which also has been increasing steadily. Credit risk premium has undergone fluctuations, reaching 8.2% in 2007 while in 2012 decreased again to 5.7%.

3.1 Microfinance institutions in Albania

In addition to banks, in Albania also operate a number of microfinance institutions that provide microcredit. 5 among the most important are: First Financial Company for Development (FAF-DC), NOA microcredit institution, BESA microcredit institution, Vision Fund and the Albanian Union of Savings and Credit ACS. All data presented in this paper refer to these institutions and mainly belong to the period 2003-2013. The following tables present data on total gross portfolio of these institutions and total active borrowers.

[248] http//www.worldbank.org/country/albania

Table 3: Total Gross Portfolio (in 000 US$)

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Asc Union	8,763	10,239	11,616	17,495	24,080	40,502	40,851	38,490	35,548	35,857	19,842
Besa	14,027	18,554	23,068	29,094	37,245	41,317	43,556	42,308	41,468	47,281	53,361
Faf-dc	7,122	11,748	12,158	14,509	16,563	16,441	16,069	18,496	21,010	21,585	20,624
Noa - Alb	5,475	9,397	13,999	25,491	36,512	42,424	43,357	39,773			
V. Fund albania	N/A	N/A	N/A	N/A	1,654	1,320	2,046	2,024	2,045	2,264	2,374
Total	35,387	49,938	60,842	86,589	116,054	142,005	145,879	141,090	100,071	106,988	96,201

Source: mixmarket.org/Albania 2014[249]

Table 4: Total Active Borrowers

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Asc Union	7,621	7157		10655	13460	16141	17573	17400	15559	15499	13891
Besa	5,061	5442	6068	7292	9,162	11340	14909	17987	19231	22894	25986
Faf-dc	4,253	4355	4645	5354	4,752	5169	4881	4452	4375	4225	3836
Noa - Alb	2,921	4295	7383	10338	13311	15834	16135	15266	N/A	N/A	N/A
V. Fund albania	N/A	N/A	N/A	N/A	1,767	1583	2043	2459	2381	2625	2448
Total	19,856	21,249	18,096	33,639	42,452	50,067	55,541	57,564	41,546	45,243	46,161

Source: mixmarket.org/Albania 2014

Based on the above data we can say that the total gross assets portfolio of five microfinance companies considered in this paper has increased up to 2009-2010. Afterwards the portfolio has significantly decreased. The same trend is true for the number of active borrowers, mainly because the crisis that has affect the financial system as a whole and not only for these services.

4. Why microfinance institutions are spreading more and more in the market?

Perhaps the reason that there is so much enthusiasm for microfinance, financial services and especially for microcredit is that this market-based mechanism has achieved some success where other mechanisms have failed to. As Baydas, M.M, Graham, D.H, Venezuela L. (1997) states, regulatory structural programs that promote market liberalization, deregulation and privatization have brought more poverty in many countries over the past 25 years.

Traditional private banks are not likely to provide microcredit. Most formal financial institutions avoid financial services for the poor because:

- they have a high credit risk
- in small amounts transactions are always associated with high costs compared to what is obtained by the commitment of these amounts in these transactions
- people with very low incomes are unable to provide collateral

Despite facing rejection from the traditional system, people in rural areas are requiring an increasing number of financial services. Jenkis H, (2000), says that these financial services support a wide sector contributing to an increasing level of employment, economic growth and increasing revenues.

[249] http//www.mixmarket/mfi/country/albania.

While micro and small enterprises expand and integrate into the formal economies of their countries, they empower and transform the lives of the poor in the world, create more jobs and higher incomes, contribute to economic growth and strengthen democratic societies.

4.1 The role of microcredit in the economic development policies

Microcredit methodology changes the way of thinking of development aid in international cooperation programs. According to Bello, W. (2006), it is an instrument to stimulate the productivity and dignity of people who are given the opportunity to grow. This opportunity is not granted, it is lended to them. This leaves aside the logic of the given ones that for many years has led to consequences such as forced assistance programs and a mechanism of dependency on those programs. Faith; this is the element that is more emphasized in the persons who receive microcredit. The loan, before taking monetary form represents confidence for the micro-entrepreneurs and their project. In this way, economic development is supported by attributing responsibility to the entrepreneurs, as protagonists and responsible for their growth and development.

In developing countries the contribution of the informal economy in national economic development is crucial.[250] Small informal activities of farmers, artisans and small traders try to survive in this kind of economy. Micro-enterprises are often a source of employment and prosperity for local communities where they operate. The activities of these micro-enterprises and their economic and social projects taken together can make up to 50% of the economies of several countries. In 2003 there were about 500 million microenterprises and only 2% of them had access to credit. Emphasizing the importance of developing these activities is necessary for strengthening those sectors that can increase the level of employment, resources turnover and the opportunity for investments.

4.2 What are the problems of microfinance institutions?

Problems hindering the development of microfinance institutions are:

- inappropriate political environment for reforms in microfinance
- lack of financial infrastructure development
- absence of healthy institutions
- lack of a good social mediation

Political reforms should focus on creating an enough-flexible environment to accommodate a growing number of MFIs.

Inadequate financial infrastructure is one of the most important problems in the region. Financial infrastructure includes the legislative, informative and supervisory and regulative systems for financial institutions and markets.

Building domestic markets and intermediation between savers and borrowers needs more technical and managerial inputs than financial inputs. The biggest problem with financial funds allocated to MFIs from donors is about ineffective use of these funds or their duplication. It is much more important to improve the effectiveness of the aid given than to give further aid.

[250] "World Bank. 2001. World Development Report 2000/2001 : Attacking Poverty. New York: Oxford University Press

Many governments have focused on the creation of institutions or special programs to grant funds for the poor, but paying little attention to create the financial infrastructure that supports, strengthens and ensures the stability of these institutions or programs and in the meantime promotes the participation of private sector institutions in microfinance.

5. Weak Points

There are also criticisms regarding microfinance institutions. Authors denounce mainly the fact that some MFI abuse with interest rates and the fact that microfinance puts more emphasis on the fight against poverty can lead to the reduction of government assistance to the poor, reduce government expenses for healthcare, education, etc as mentioned by Chowdhury, A, (2009). Despite success, MFI have had many failures:

- Many microfinance institutions do not reach even a minimum level of efficiency necessary to cover their own costs.
- Many microfinance institutions face not incentive political structure and daunting social and economic challenges.
- Some microfinance institutions fail in the management of funds and as a result face liquidity problems.
- Others do not develop financial management systems or skills required to run a successful operation.
- There is no adaptation of methods to the cultural, social and economic areas.

6. Conclusions and Recommendations

- Today, microfinance is an important part of the world financial system
- In Albania there is no clear legislation for microfinance which would regulate the activities of these institutions
- A national microfinance strategy is missing.
- Albanian Central Bank and the Supervisory Committee of the financial policies should create favourable conditions for stimulating and developing the system
- Greater efforts are required in terms of dissemination of information about the services and products of microfinance
- Institutional strengthening is necessary for market development
- MFIs need to simplify the procedures for their customers

References

1. http//www.worldbank.org/country/albania. http://data.worldbank.org/country/albania
2. http//www.mixmarket/mfi/country/albania. http://www.mixmarket.org/mfi/country/Albania?gclid=CMibp760nscCFcFl2wodlf8PxA
3. “World Bank. 2001. World Development Report 2000/2001 : Attacking Poverty. New York: Oxford University Press. © World Bank. https://openknowledge.worldbank.org/handle/10986/11856 License: CC BY 3.0 IGO.
4. Bello, W. (2006). Microcredit, Macro Problems. The Nation http://www.countercurrents.org/eco-bello171006.htm (accessed 10 May 2015)
5. Sullivan. D. (2006) Mikrondërmarrjet dhe Zhvillimi i tyre. http://albanian.tirana.usembassy.gov/06pr_1207.html

6. Christen, R, Lyman, T, Rosenberg, R (2003). Microfinance Consensus Guidelines, Guiding principles on Regulation and Supervision of Microfinance. https://www.cgap.org/sites/default/files/CGAP-Consensus-Guidelines-Guiding-Principles-on-Regulation-and-Supervision-of-Microfinance-Jun-2003.pdf
7. Baydas, M.M, Graham, D.H, Venezuela L. (1997) "Commercial banks in Microfinance: New Actors in the Microfinance World" Focus Note No 12. CGAP
8. Jenkis H, (2000), Commercial Bank Behaviour in Micro and small Enterprise finance, Center for International Development, Development, Discussion paper n° 741, pp 24 http://www.cid.harvard.edu/hiid/741.pdf
9. Chowdhury, A, (2009). Microfinance as a Poverty Reduction Tool— A Critical Assessment. DESA Working Paper No. 89 ST/ESA/2009/DWP/89, http://www.un.org/esa/desa/papers/2009/wp89_2009.pdf

MEASURING STOCK MARKET LIQUIDITY: COMPARATIVE ANALYSIS OF TRANSITION ECONOMIES IN SOUTH-EASTERN EUROPEAN COUNTRIES

Jasmina OKIČIĆ[251]

Sonja REMETIC HORVATH[252]

Abstract

Liquidity is often considered as a key but elusive concept in stock markets. It is often defined as ability to buy or sell significant quantities of a security quickly, anonymously, and with minimal or no impact on price. Although there has been extensive research into the empirical and theoretical aspects of liquidity, most of these studies have focused almost exclusively on the well-developed stock markets, usually the U.S. markets. To our best knowledge, very few publications can be found in the literature that discusses the issue of the stock market liquidity in case of transition economies. Therefore, the main goal of this paper is to examine the liquidity of stock markets from the transition economies in South-Eastern European countries, by using liquidity measures such as: Amihud's measure of illiquidity, number of trades, volume and turnover. The sample consists of stocks, listed on stock market from the selected South-Eastern European countries, that are included in one of the equity indices from the analyzed stock markets, i.e. BATX from Bosnia and Herzegovina, BELEX15 from Serbia, CROBEX10 from Croatia, MBI10 from Former Yugoslav Republic of Macedonia and MNSE10 from Montenegro. The results presented in this paper will provide valuable information in decision making for those who are planning to invest in stock markets from the transition economies in South-Eastern European countries.

Key words: *liquidity; stock markets; transition economies*

JEL:*G1, C8*

[251] Faculty of Economics, University of Tuzla, Univerzitetska 8, 75000 Tuzla, Bosnia and Herzegovina, e-mail: jasmina.okicic@untz.ba

[252] Institut für Betriebswirtschaftslehre, University of Vienna, Oskar-Morgenstern-Platz, A-1090 Vienna, Austria, e-mail: sonja.remetic@gmail.com

1. Introduction

Well-functioning stock markets are seen as important vehicles of ownership transfer in transition economies. In most transitioning economies, where the transfer of ownership took place in the last few decades, changing hands from public to private sector, stock markets have been developing slowly but continuously as an outcome of thorough institutional and legal framework harmonization.

Major threats of steady development have been the slow rates of improvement in legal and information frameworks, the small market capitalization as an outcome of lacking of macroeconomic stability, and the overall inability of transition economies to attract foreign investors (limited trust in contract enforcement, corruption, and instable political infrastructure). As increasingly global companies continue to look for most efficient forms of financing, lowest prices and liquidity to raise new capital, we believe that a transparent, objective and quickly accessible fact check on capital markets is crucial for both professional and private investors as well as other stakeholders.

More recently the discussion on more transparent and liquid markets reached higher grounds, as national solvency of many developed and transitioning economies depend on how fast pension reforms are designed to increase retirement saving by individuals, and most importantly the need of accession countries to modernize their retirement systems as a part of a wider transition to liberal democracies. For CEE and Baltic countries, this process will continue to be driven by the European Union. In the short to medium run, the economies in transition will continue to import financial services to develop local stock exchanges, and reduce barriers of local corporates to gain access to larger exchanges at diverging rate of change.

The most recent trends for stock market consolidation have also been largely overseen by transitioning economies. Start-up companies are largely establishing their legal domiciles in countries of more developed stock exchanges in order to have better access to fresh capital in the future. Studies find that firms conducting most of their business abroad and issuing a greater percentage of equity abroad are likely to have a greater appeal for foreign investors irrespective of their size and industry (Mittoo, 1992).After the most recent financial crisis, the question remains whether the transitioning stock exchanges will achieve the economies of scale and scope to be recognized by international investors and join the emerging economies or fail to live up to their trading cost structure.

The main goal of this paper is to examine the liquidity of stock markets from the transition economies in South-Eastern European countries. The research should result in responses to the following questions: What is the average daily trading volume in stock markets from the SEE? What is the average turnover in these markets? Which stocks are most liquid stocks from these markets and which are least liquid? Having in mind the above said, the central research hypothesis shall be as follows:*Stock markets from the SEE region are in general characterizedby low liquidity.*

The paper is organized as follows. After introduction, in part one we bring a short overview of some recent literature that is relevant to the main objective of the paper. In part two we present fundamental theoretical background and methodology relevant to the research.Part three is the centre of the paper and contains analysis and discussion of the original empirical results. The last part contains some final remarks and conclusions.

2. Literature review

The transition economies of Central and Eastern Europe have undergone great changes to their political, legal and economic systems as countries have moved from a mainly planned economy with state ownership of all or a majority of assets to a market-based economy (Marston, 2012). Stock exchanges have not been new in CEE, the Warsaw Stock Exchange was formed in 1817, the Prague Stock Exchange opened in 1871, but the reigning regimes relied on centrally planned economic activities and less on the free flow of capital. These markets in transitions resumed their activity relatively recently, and therefore pose an interesting research field (Wang and Moore, 2008). It is unlikely there will ever be another natural economic experiment on a scale as large as that of the transition process, with 25 economies changing policies radically at almost the same moment (Fischer and Satay, 2004).

Various studies have shown that the development of financial system has positive effect on economic growth (Rousseau and Sylla, 2005; Burhop, 2006). Stock market facilitates and largerly contributes to capital formation at the same time promoting economic growth through encouraging saving and real investment (Lau et al., 2013).

In our sample, most stock exchanges started with a small number of stocks, all offered in IPOs and having fairly liquid trading (Claessens et al., 2000). Levin (1997) in his review paper states majord advantages of well-developed stock markets, such as faster access to external financing enabling the companies to grow faster than their transfer-price financed counterparts.

Stock-market listed companies are also less prone to expansive and contractive banking cycles, as they are not heavily relied on credit lines. The improvement of corprorate governance standards is evident and the management is held accountable by law. Especially relevant for economies in transition, more recent studies link better corporate governance and greater poverty alleviation, reducing inequality (Claessens and Yurtoglu, 2013).

The literature regards securities law (Jackson and Roe, 2009) and market microstructure (Harris et al., 2008) as key drivers of well-developed stock markets. Pagano (1993) provides a theoretical contribution showing how financial development may have a positive effect on growth. He stresses the role of financial institutions, e.g., banks, in providing important services such as facilitating the trading, hedging, diversifying and pooling of risk, which stimulates savings mobilization, and allocating financial savings to the most efficient investment projects by screening and monitoring borrowers. Moreover, Pagano points out that financial development may influence the private saving rate.

Literature suggests that stock market development takes place simultaneously with other elements of of financial market development (Demirguc-Kunt and Levine, 1996), acting complementary to each other. In the same study authors emphasize the importance of stock market development, and liquidity as crucial factors in stimulating industrialization. The recent financial crisis of 2007-2009 has illustrated the central role of liquidity in all financial markets (Mancini et al., 2013). A solid definition of liquidity is hard to come upon, as authors do not seem to agree on a number of transactional properties of markets, such as market tightness, -depth, -resiliency (Lesmond, 2005) and -information (O'Hara, 2003). The literature is abundant with empirical studies which have been repeatedly limited in including measures capturing only one dimension of aliquidity. For example, Amihud and Mendelson (1986) use the bid-ask spread (quoted or effective), Datar et al. (1998) apply the turnover contruct measuring the price impact arising from traded volume (Amihud (2002), Pastor and Stambaugh (2003)). On the other hand, there is very little published research showcasing constructs that measure the trading speed dimension of liquidity, per definition as the ability to transact large quantities quickly with little price impact

(Pastor and Stambaugh, 2003; Liu, 2006). All these studies using only one-dimensional constructs fail to fully capture liquidity risk and accurately estimate the dimensions included in the original model. In their studies within the context of price impact measuers, Pastor and Stambaugh (2003), Amihud (2002) call for expansion of one-dimensional measures to capture liquidity. Another author, Lee (1993) highlights deficiencies in the application of the bid–ask spread construct, revealing evidence that many large trades occur outside the bid–ask spread while many small trades are undertaken within, leading to potential bias. Lesmond (2005) shows concerns over the application of one-dimensional measures undefined in the presence of situations of extreme illiquidity as is frequently the case in emerging markets. The stream of literature dealing with stock market liquidity, has been introducing new measures such as Liu (2006) capturing the trading speed of liquidity, defined as the standardised turnover-adjusted number of zero trading volumes over the past 12 months. This call for more multidimensionality, attempts to capture effects relating to trading speed, trading quantity and trading cost, with an emphasis on trading speed, outlined as the continuity of trading and the potential delay in executing an order (Liu, 2006).

In the presence of significant illiquidity, this measure is particularly robust, having one major drawback, and that having been studied within the context of the developed market of the New York Stock Exchange (Liu, 2006). The measure has been justified in case of emerging markets (Andrianaivo, 2010), studying liquidity in East African markets where there are greater variations in times between order submission and execution, i.e. trading speeds. More recently, the literature started including liquidity as a priced state variable within a valuation framework. Evaluating the US stock market date, Pastor and Stambaugh (2003) find strong evidence that market-wide liquidity is a priced state variable and that the liquidity premium should be positive. The innovative approach of the study used, measured a price impact measure of liquidity to rank stocks within a universe into decile portfolios, with the market aggregate premium being formed in the difference between returns of the highest and lowest liquidity deciles.

3. Theoretical background and methodology

Liquidity is often considered as a key but elusive concept in stock markets. It is often defined as ability to buy or sell significant quantities of a security quickly, anonymously, and with minimal or no impact on price. According to Von Wyss (2004) there are four aspects or dimensions of stock market liquidity, i.e.

- *Trading time:* defined as the ability to execute the transaction immediately at the prevailing price. The waiting time between trades is the measure for trading time.
- *Tightness:* the ability to buy and to sell an asset at about the same price at the same time.
- *Depth:* the ability to buy or to sell a certain amount of an asset without influence on the quoted price. A sign of illiquidity would be an adverse market impact on price when trading occurs. Depth is characterised with existence of large number of buy and sell orders with little changes in prices.
- *Resiliency:* the ability to buy or to sell a certain amount of an asset with little influence on the quoted price.

Von Wyss (2004) also separates liquidity measures into one-dimensional and multi-dimensional measures. One-dimensional liquidity measures (size of the firm, volume, time and spread related liquidity measures) take only one variable into account. Multi-dimensional measures (liquidity ratio 1 and Amihud's illiquidity ratio or ILLIQ) try to take into account different variables in one measure.

In order to examine the level of liquidity of stock markets from the transition economies in South-Eastern European countries, in this research we used the sample of 49 most liquid stocks, listed on stock market from the selected SEE countries,that are included in one of the equity indices from the analyzed stock markets, i.e.:

1. BATX from Bosnia and Herzegovinawhich includes following stocks: Bosnalijekd.d. Sarajevo (BSNLR), Fabrikaduhanad.d. Sarajevo (FDSSR), JP ElektroprivredaBiHd.d. Sarajevo (JPESR), Nova bankaa.d. Banja Luka (NOVB-R-E) and Telekom Srpskea.d. Banja Luka (TLKM-R-E);
2. BELEX15 from Serbia which includes following stocks: NIS a.d., Novi Sad (NIIS), Komercijalnabankaa.d, Beograd(KMBN), Aerodrom Nikola Tesla a.d. Beograd(AERO), Energoprojekt holding a.d. Beograd (ENHL), AIK bankaa.d. Beograd (AIKB), GalenikaFitofarmacijaa.d.Zemun (FITO), Sojaproteina.d.Bečej (SJPT) Metalaca.d.GornjiMilanovac (MTLC), Alfa plama.d.Vranje (ALFA), Imlek a.d. Beograd (IMLK), Messer Tehnogasa.d. Beograd (TGAS), Jedinstvoa.d.Sevojno (JESV) and Gošamontažaa.d.Velika Plana (GMON);
3. CROBEX10 from Croatia which includes following stocks: AD Plastikd.d. (ADPL-R-A), Adrisgrupad.d. (ADRS-P-A), Atlantic Grupad.d. (ATGR-R-A), Ericsson Nikola Tesla d.d. (ERNT-R-A), HT d.d. (HT-R-A), INA d.d. (INA-R-A), Končar - Elektroindustrijad.d.(KOEI-R-A), Ledod.d. (LEDO-R-A), Podravkad.d.(PODR-R-A) and VALAMAR RIVIERA d.d. (RIVP-R-A);
4. MBI10 from Former Yugoslav Republic of Macedonia which includes following stocks: Alkaloid Skopje (ALK), Replek AD Skopje (REPL), Granit Skopje (GRNT), Komercijalnabanka Skopje (KMB), Makpetrol Skopje (MPT), StopanskabankaBitola (SBT), Makedonski Telekom AD Skopje (TEL), Makedonijaturist AD Skopje (MTUR), NLB Tutunskabanka AD Skopje (TNB) and SkopskiPazar AD Skopje (SPAZ);
5. MSE10 from Montenegro which includes following stocks: Hotelskagrupa "Budvanskarivijera" a.d.Budva (BUDR), ElektroprivredaCrne Gore a.d.Nikšić (EPCG), Jugopetrola.d.(JGPK), Port of Adria a.d. Bar (KOGE), Luka Bar a.d. Bar (LUBA), 13. juliPlantažea.d. (PLAP), "Crnogorskielektroprenosnisistem" a.d.(PREN), Rudnikugljaa.d. (RUPV), Crnogorskitelekoma.d. Podgorica(TECG) and H.T.P UlcinjskarivijeraUlcinj(ULRI).

Data are obtained from publicly available sources from the Internetin period from January 1st2009 till July 30th 2015.We used following liguidity measures: Amihud's measure of illiquidity, average daily number of trades, average daily volume and average daily turnover. In order to get better insight into liquidity of the selected markets we will also calculate average daily rate return. Trading volume ($\boldsymbol{V}$) represents the number of stocks traded in a certain interval of time (day, week, month, etc.). Turnover ($\boldsymbol{T_n}$)is calculated as:

$$\boldsymbol{T_n} = \sum_{\boldsymbol{i=1}}^{\boldsymbol{n}} \boldsymbol{p_i}\, \boldsymbol{q_i}, \quad (1)$$

where$\boldsymbol{p_i}$represents the price in transaction $\boldsymbol{i}$, and$\boldsymbol{q_i}$is the numberof stocks traded in transaction $\boldsymbol{i}$.Amihud's illiquidity ratio ($\boldsymbol{ILLIQ_t}$), first used by Amihud (2002), compares absolute price change with respect to turnover, i.e.:

$$\boldsymbol{ILLIQ_t} \quad (2)$$

where$\boldsymbol{r_t}$represents daily rate return on a specific stock, and $\boldsymbol{T_{n_t}}$ daily turnover for the same stock. So, if we denote successive prices of the stock made at time *t* and *t+1* as $P_t$and P_{t+1}, respectively, then continuous compounding transforms a price value series $\{P_t\}$into an rate of return series $\{r_t\}$ as:

$$\boldsymbol{r_t} = \boldsymbol{ln}\left(\frac{\boldsymbol{P_t}}{\boldsymbol{P_{t-1}}}\right). \quad (3)$$

As Benić and Franić (2008) have already pointed out, Amihud's illiquidity ratio takes into account several dimensions of liquidity: (1) there is price change, for as indicator of liquidity a

smaller price change indicateshigher liquidity; (2) we have turnover, which multiplies the volume and priceof each transaction and represents a one-dimensional measure of trading activity; (3) as indicatorof liquidity, a higher volume represents a more liquid market and (4) the most importantaspect is the impact of turnover on price change, hence a market is more liquid as theimpact of turnover on price is smaller.

4. Empirical results and discussion

According to previously explained methodology, we will first examine average daily trading volume (Figure 1), and then Amihud's measure of illiquidity, average daily number of trades, average daily turnover and average daily rate of return (Table 1).

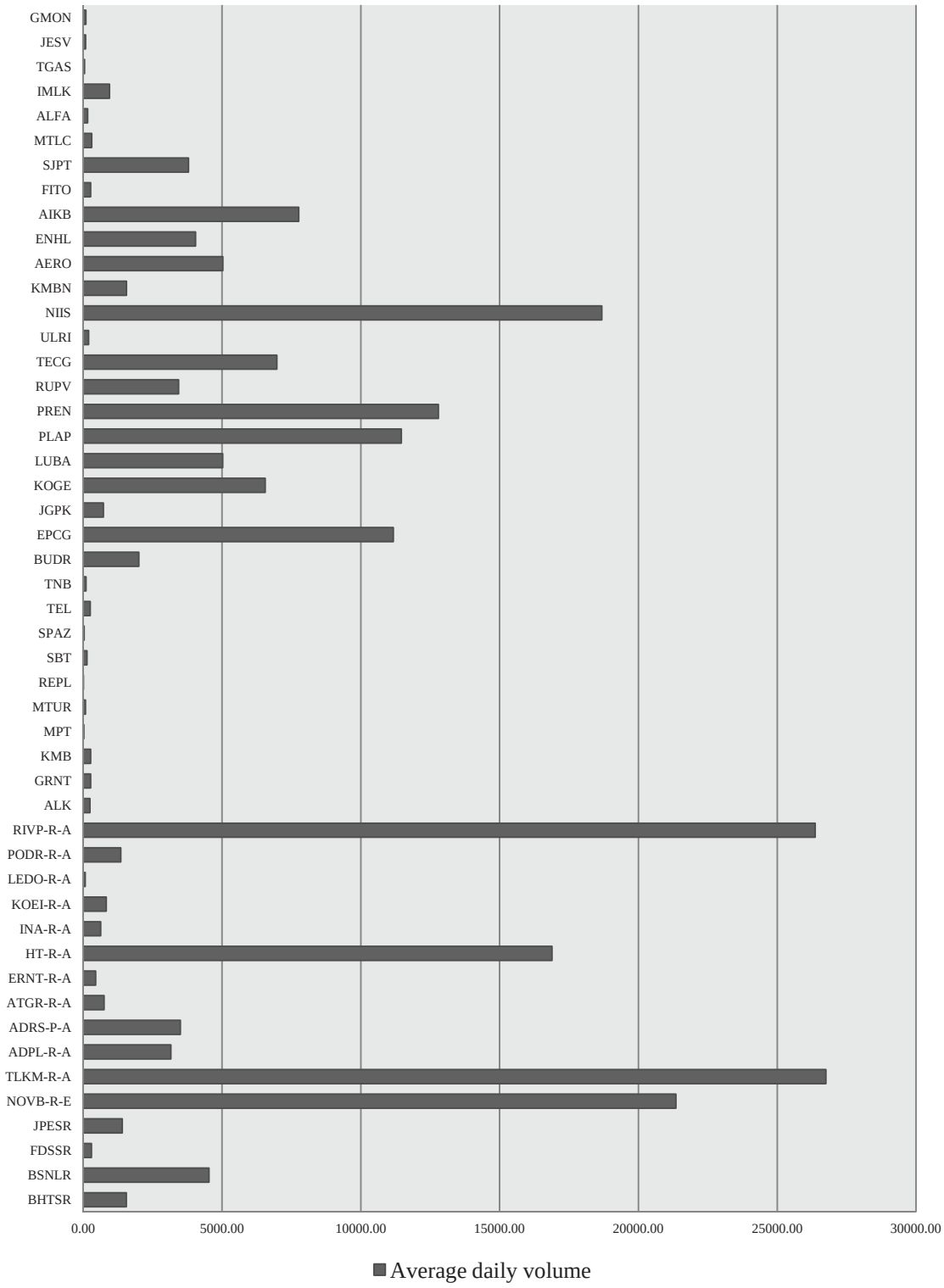


Figure 1 Average daily trading volume
Source: Authors' calculations

Table 1 Measures of liquidity

Country	Issuer	Average daily return	Average daily number of trades	Average daily turnover	Amihud's illiquidity ratio (daily average)
Bosnia and Herzegovina	BHTSR	-0,02%	7,50	31.710,12 BAM	2,3E-06
	BSNLR	-0,03%	7,03	60.622,66 BAM	7,0E-06
	FDSSR	-0,07%	5,72	20.124,27 BAM	6,4E-06
	JPESR	-0,07%	7,06	37.295,11 BAM	1,4E-05
	NOVB-R-E	-0,09%	0,55	3.939,286 BAM	3,4E-05
	TLKM-R-A	0,04%	7,18	39.651,00 BAM	2,2E-06
Croatia	ADPL-R-A	0,06%	26,23	348.944,30 HRK	6,3E-07
	ADRS-P-A	0,05%	24,66	914.736,70 HRK	7,0E-08
	ATGR-R-A	0,04%	14,37	546.193,00 HRK	8,1E-02
	ERNT-R-A	-0,01%	31,14	610.128,60 HRK	4,7E-01
	HT-R-A	-0,02%	162,46	3.858.557,00 HRK	3,4E-09
	INA-R-A	0,08%	42,09	1.701.528,00 HRK	3,7E+00
	KOEI-R-A	0,03%	14,94	427.695,00 HRK	3,2E-07
	LEDO-R-A	0,03%	9,25	526.069,00 HRK	1,4E+00
	PODR-R-A	0,00%	15,18	378.909,70 HRK	3,1E-07
	RIVP-R-A	-0,16%	20,40	440.606,70 HRK	4,0E-06
Former Yugoslav Republic of Macedonia	ALK	0,00%	n/a	1.588.656,44MKD	2,3E-08
	GRNT	-0,01%	n/a	556.794,00 MKD	2,4E-02
	KMB	-0,03%	n/a	1.900.107,06 MKD	5,2E-08
	MPT	-0,03%	n/a	447.227,17 MKD	1,1E-07
	MTUR	0,00%	n/a	145.562,00 MKD	2,0E-07
	REPL	0,01%	n/a	151.633,90 MKD	8,7E-08
	SBT	-0,07%	n/a	261.208,46MKD	3,0E-07
	SPAZ	-0,03%	n/a	63.565,15 MKD	4,9E-07
	TEL	-0,01%	n/a	567.400,96 MKD	1,6E-07
	TNB	0,01%	n/a	284.422,26 MKD	2,1E-07
Montenegro	BUDR	0,10%	n/a	12.189,00 EUR	1,4E-03
	EPCG	0,01%	n/a	72.208,00 EUR	1,2E-04
	JGPK	0,04%	n/a	7.030,93 EUR	2,3E-05
	KOGE	-0,13%	n/a	3.321,00 EUR	7,0E-05
	LUBA	-0,08%	n/a	2.358,00 EUR	8,18E-05
	PLAP	-0,05%	n/a	3.358,00 EUR	7,7E-05
	PREN	0,07%	n/a	7.883,00 EUR	5,98E-05
	RUPV	0,04%	n/a	23.475,47 EUR	3,7E-05
	TECG	0,03%	n/a	23.234,00 EUR	1,0E-05
	ULRI	0,02%	n/a	1.144,24 EUR	1,6E-04
Serbia	NIIS	0,02%	n/a	12.105.872,00 RSD	1,5E-09
	KMBN	-0,02%	n/a	2.958.526,00 RSD	3,5E-07
	AERO	0,06%	n/a	2.867.131,00RSD	3,4E-08
	ENHL	0,04%	n/a	2.847.467,30 RSD	1,5E-07
	AIKB	-0,02%	n/a	15.812.877,24RSD	8,9E-08
	FITO	0,01%	n/a	771.471,50 RSD	3,9E-07
	SJPT	-0,02%	n/a	2.873.095,00 RSD	3,9E-07
	MTLC	0,01%	n/a	612.506,48 RSD	2,7E-07
	ALFA	0,09%	n/a	1.401.421,00 RSD	1,9E-07
	IMLK	0,08%	n/a	2.334.919,24 RSD	1,5E-07
	TGAS	0,03%	n/a	262.486,20 RSD	1,1E-04
	JESV	0,01%	n/a	445.877,90 RSD	3,2E-07
	GMON	0,00%	n/a	248.330,80 RSD	1,4E-06

Note:
1. BAM –Bosnian Convertible Marka
2. HRK – Croatian Kuna
3. MKD – Macedonian Denar
4. EUR – Euro
5. RSD –Serbian Dinar

Source: Authors' calculations

Presented results clearly indicate that selected stock markets are characterised by low liquidity.For example, average daily trading volume or average number of stocks traded in one day (see Figure 1) in case of some markets is less than 100 (LEDO-R-A). Some markets have very poor average daily number of trades (see Table 1), where, for example in period from 2009 to 2015, average daily number of trades for NOVB-R-E was less than 1. Here, we must not forget that the stocks that we analyzed represent first-grade or blue chip stock from the SEE region.

Furthermore, 20 out of 49 analyzed stocks had negative average return (BHTSR, BSNLR, FDSSR, JPESR, NOVB-R-E, ERNT-R-A, HT-R-A, RIVP-R-A, GRNT, KMB, MPT, SBT, SPAZ, TEL, KOGE, LUBA, PLAP, KMBN, AIKB and SJPT).

As pointed out by Amihud (2002), $\boldsymbol{ILLIQ_t}$ is is the daily ratio of absolute stock return to its dollar volume, averaged over some period and it can be interpreted as the daily price response associated with one dollar of trading volume, thus serving as a rough measure of price impact.

In this research turnover was calculated in different currencies (BAM for Bosnia and Herzegovina, HRK for Croatia, MKD for Former Yugoslav Republic of MacedoniaMacedonia, EUR for Montenegro and RSD for Serbia) and therefore this ratio needs to be interpreted separately for each country. Basically, the rule that a lower value of the $\boldsymbol{ILLIQ_t}$indicates a more liquid market and vice versa.

In Bosnia and Herzegovina, the least liquid stock is NOVB-R-E, with Amihud's illiquidity ratio (daily average) of 3,40E-05. According to this ratio, the most liquid stock in Bosnia and Herzegovina is TLKM-R-A. In Croatia, the least liquid stock is INA-R-A with Amihud's illiquidity ratio (daily average) of 3,70E+00, and the most liquid stock is HT-R-A.In Former Yugoslav Republic of Macedonia, the least liquid stock is GRNT with Amihud's illiquidity ratio (daily average) of 2,40E-02, and the most liquid stock is ALK . In Montenegro, the least liquid stock is BUDR with Amihud's illiquidity ratio (daily average) of 1,40E-03, and the most liquid stock is TECG. Finally, in Serbia, the least liquid stock is TGAS with Amihud's illiquidity ratio (daily average) of 1,10E-04, and the most liquid stock is NIIS.

5. Conclusion

This paper investigated the liquidity of stock markets from the transition economies in SEE countries, by using liquidity measures such as: Amihud's measure of illiquidity, number of trades, volume and turnover. On the basis of theoretical inferences and empirical evidence presented in this paper, it seems fair to suggest that, stock markets from the SEE region are in general characterized by low liquidity. However, due to the relatively small sample of blue chip stocks from the SEE region used, which is the main limitation of the study, more research on this topic needs to be undertaken before the level of liquidity of the selected markets is more clearly understood. To summarize, previously formulated scientific hypotheses can be confirmed and further research suggests a need for more in-depth analysis of the selected markets, in terms of the four aspects of the stock market liquidity, i.e. trading time, tightness, depth and resiliency.

References

39. Amihud, Y. (2002). Illiquidity and stock returns: Cross section and time series effects. *Journal of Financial Markets*, 5, 31-56.
40. Amihud, Y. and Mendelson, H. (1986). Asset pricing and the bid-ask spread. *Journal of Financial Economics*, 17, 223-249.
41. Andrianaivo, M. & Yartey, C. A. (2010), Understanding the Growth of African Financial Markets. *African Development Review*, 22, 394–418.

42. Banja Luka Stock Exchange. (2013). *Historical Index Values*. Retrieved 25 July 2015, from http://www.blberza.com
43. Belgrade Stock Exchange. (2013). *BELEX15*. Retrieved 23 July 2015, from http://www.belex.rs/eng/#
44. Benić, V. & Franić, I. (2008). Stock Market Liquidity: Comparative Analysis of Croatian and Regional Markets. *Financial Theory and Practice*. 32(4), 477-498.
45. Burhop, C. (2006). Did banks cause the German industrialization? *Explorations in Economic History*, 43(1): 39–63.
46. Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review*, 15, 1-33.
47. Claessens, Stijn and Djankov, Simeon and Klingebiel, Daniela, Stock Markets in Transition Economies (September 2000). Financial Sector Discussion Paper No.5. Retrieved 20 July 2015 from, http://ssrn.com/abstract=240703
48. Datar, V. T., Naik, N. Y. & Radcliffe, R. (1998). Liquidity and stock returns: An alternative test. *Journal of Financial Markets*, 1, 203-219.
49. Demirguc-Kunt, A. & Levine, R. (1996). Stock markets, corporate finance and economic growth: An overview. *The World Bank Economic Review*, 10, 223-239.
50. Fischer, S., & Sahay, R. (2004). Transition economies: The role of institutions and initial conditions. Festschrift in Honor of Guillermo A. Calvo, 15-16.
51. Harris, F.H., Aitken, M. A., Cook, R. M. & McInish, T. H. (2008). Market design and execution costs for matched securities worldwide. *Institutional Investor's Guide to Global Liquidity*, Vol 2, Goldman Sachs.
52. Jackson, H. E., & Roe, M. J. (2009). Public and private enforcement of securities laws: Resource-based evidence. *Journal of Financial Economics*, 93(2), 207-238.
53. Lau, C. K. M., Demir, E. & Bilgin, M. H. (2013). Experience-based corporate corruption and stock market volatility: Evidence from emerging markets. *Emerging Markets Review*, 17, 1-13.
54. Lee, C. (1993). Market fragmentation and price-execution in NYSE-listed securities. *Journal of Finance*, 48, 1009-1038.
55. Lesmond, D. A. (2005). Liquidity of emerging markets. *Journal of Financial Economics*, 77: 411-452.
56. Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda, *Journal of Economic Literature* 35 (June), 688–726.
57. Liu, W. (2006). A Liquidity-augmented capital asset pricing model. *Journal of Financial Economics*, 82, 631-671.
58. Macedonian Stock Exchange. (2013). *MBI10*. Retrieved 20 July 2015, from http://www.mse.mk/en/indicies/MBI10/values/100
59. Mancini, L., Ranaldo, A. & Wrampelmeyer, J. (2013). Liquidity in the foreign exchange market: Measurement, commonality, and risk premiums. *The Journal of Finance*, 68(5), 1805-1841.
60. Marston, C. (2012). Investor relations in the transition economies of Central and Eastern Europe. Available at SSRN 2296914.
61. Mittoo, U. R. (1992), Managerial Perceptions of the Net Benefits of Foreign Listing: Canadian Evidence. *Journal of International Financial Management & Accounting*, 4, 40–62. doi: 10.1111/j.1467-646X.1992.tb00021.
62. Montenegro Stock Exchange. (2013). *MONEX 20*. Retrieved 18 July 2015, from http://www.montenegroberza.com/code/navigate.asp?Id=83
63. O'Hara, M. (2003). Presidential address: Liquidity and price discovery. *Journal of Finance*, 58, 1335-1354.
64. Pagano, M., (1993). Financial markets and growth: An overview. *European Economic Review* 37, 613-623.

65. Pastor, L. & Stambaugh, R. (2003). Liquidity risk and expected stock returns. *Journal of Political Economy*, 111: 642-685.
66. Rousseau, P. L. & Sylla, R. (2005). Emerging Financial Markets and Early US Growth. *Explorations in Economic History*, 42(1), 1–26.
67. Sarajevo Stock Exchange. (2013). *SArajevo Stock EXchange Index 10 – SASX-10*. Retrieved 26 July 2015, fromhttp://195.222.43.81/sase-final/
68. The Zagreb Stock Exchange. (2013). *Historical Trading data.* Retrieved 20 July 2015, from http://zse.hr/default.aspx?id=110
69. Von Wyss, R. (2004). Measuring and Predicting Liquidity in the Stock Market Unpublished doctoral dissertation). Die Universität St. Gallen, Hochschule für Wirtschafts-, Rechts- und Sozialwissenschaften, St. Gallen.
70. Wang, P. & Moore, T. (2008). Stock Market Integration for the Transition Economies: Time-varying conditional correlation approach. The Manchester School, 76(s1), 116-133.

THE IMPACT OF MUNICIPAL BONDS ON THE FINANCIAL CONDITION AND STABILITY OF MUNICIPALITIES

Jelena Poljašević, Phd (jelena.poljasevic@efbl.org)

Faculty of economics

Univesity of Banja Luka, Republic of Srpska, Bosnia and Herzegovina

Abstract

One of the ways to generate budget inflows in a fiscal year without tax increases is issuing minicipal bonds. When municipality issues bonds, there is always question who will bear the burden of debt and who will enjoy the benefits created from issued bonds inflows. The second question is whether the minicipality will be able to settle the obligation at the agreed time. Although municipal bonds are securities with low risk, there is always risk of unliquidity. Furthermore, faced with financial problems, municipalities can issued new bonds which in the long term leads to reduction of the net assets and to a reduction in the quality of services provided to citizens. The purpose of this paper is to identify indicators for the analysis of financial condition and stability of municipality and the impact of the obligation arising from municipal bonds on quality of services provided to citizens.

Keywords: *municipal bonds, financial condition, solvency, debt, budget surplus (deficit)*

Introduction

Governments and other public sector entities are continually confronted with fiscal challenges regardless of their level of development. Numerous factors create the fiscal pressure on governments such as demographic change, technological advances that create demand, increase the cost of the health and pension systems, and others. The global financial crisis has significantly increased this fiscal pressure in all countries, which has led to certain government intervention in the form of guarantees on loans, insurance of bank deposits, purchase of impaired financial assets, and additional borrowing.

One of the ways that states, cities or municipalities generate inflows in a fiscal year without tax increases is borrowing by issuing municipal bonds. These bonds are issued in order to collect funds for investments such as the construction of roads, hospitals, schools, recreation centers and other projects that contribute to improving the quality of life of citizens. When issuing bonds there is always the question who will pay these bonds, who bears the burden of debt and who enjoys the benefits that are created from the funds raised by selling bonds.

Although municipal bonds are considered securities with low risk, the risk of non-payment still exists. Furthermore, if faced with financial problems, the municipality can perform issuing of new bonds, which in the long run leads to reduction of the net assets of the municipality and ultimately, to a reduction in the quality and quantity of services provided to citizens.

In the Republic of Srpska first long-term municipal bonds were issued in 2007. The largest buyer of these bonds is Investment Development Bank of the Republic of Srpska with about 50% of the nominal value of bonds of all emissions. In order to assess the riskiness of investing in these bonds, from the standpoint of investors, it is necessary to analyze the financial statements of the issuer, which requires public availability of this information both at the time of the bond issue and after emission. In the Republic of Srpska municipalities draw up a prospectus at the time of the bond issue which contains the financial statements for the previous three years. After emission, general purpose financial statements do not publish to the public, and report on budget execution is presented only by individual municipalities. In this way, current and potential investors are deprived of information that would help in assessing the liquidity and solvency of the municipality or bonds.

Taking into account the specificity of municipalities as the reporting entity, this work focuses on the search for corresponding indicators that need to be taken into account to assess the financial condition and stability of the municipality. Based on numerous studies that have been done in developed countries, while taking into account the characteristics of our local communities and environments in which they perform their core functions, it will be separated ratio numbers that enable the evaluation of current and future financial position of the municipality, thus the impact of obligations arising from bonds on the quality of services provided to citizens.

1. The main characteristics of municipal bonds

Municipal bonds (Bonds of local governments: cities and municipalities) are debt securities. Local government as the issuer agrees to return within a specified period borrowed funds with particular interest. These bonds have the same purpose as government bonds, money are invested in projects of local and regional importance as the government bonds financed projects of common national and state interests. Typically, they have a maturity between one and 30 years. Cash raised by issuing these bonds are mainly used to finance local infrastructure, schools, water, parks and the

like. The construction of better infrastructure increases the standard of citizens and creates conditions for faster development of the real sector through greater inflow of foreign investments. Often the emission of these bonds is done in order to cover the budget deficit of municipalities or refinancing existing obligations.

Unlike loans, this type of borrowing for municipalities and cities is advantageous because a lower interest rate obtained large amounts of money collected from a large number of investors. There are significant also because it enables local people to invest their own money in their own city or municipality, and that it obtains and favorable interest rates. In addition, the yield of municipal bond is alluring not only for small, but also for institutional investors such as funds, insurance companies, and banks. From the standpoint of the issuer, the advantage of borrowing by issuing municipal bonds is lower interest rate compared to credits and increased accountability of the authorities because of its high transparency of the whole process. From the standpoint of the buyer of these bonds, interest income on these bonds is tax-free in most cases.

As with the corporate bond payment of interest and principal depends on the nature or type of bond. Usually general municipal bonds can be payed from any source of local government's revenue. Since the local authority guarantees the payment by all its revenues, especially tax, for investors these bonds are the safest. Besides these bonds are often insured by major insurance companies, or behind it states state.

Unlike general municipal bonds, local communities used to issue bonds to finance their projects which will directly generate income to the issuer. Such projects are for example the construction of roads (tolls), construction of bridges (toll), and the like. Principal and interest are returned from the income of the building.

2. The analyzes of financial condition and stability of municipalities

Municipalities are part of the general government sector, or part of local government whose activities are defined by law. Activities that municipalities have implemented are various which complicates the analysis of its financial condition. The basic characteristics of public sector entities are the absence of profit motive. For this reason, the techniques used to analyze the performance of profit-oriented entities do not apply in the public sector. While in the private sector financial reports are basic information needed for analysis, in the public sector besides financial are equally important and non-financial information. In this paper it will be exposed analysis techniques which should be used in evaluating the financial condition and stability of municipalities that have issued bonds. These analysis are used in order to assess the liquidity of the municipalities, and the impact of this borrowing to change on the quality of services provided to citizens.

2.1. Indicators of financial condition and stability

Issuing bonds leads to an increase in cash and long-term liabilities in the year of borrowing. In the coming years, the cost of interest on bonds leading to expenditure growth, and at constant income, a reduction in the gross budgetary surplus or increase in gross budget deficit. If the bonds are issued with a grace period, the issuer pays only interest during the grace period. In the years of payment of principal, part of long-term liabilities that is due for payment in that year is reposted on short-term obligations and affects the liquidity of the issuer. Unlike for-profit entities, public sector entities do not generate cash needed to settle the short-term liabilities by selling products or services where there is a conversion of receivables and inventories into cash, but collecting taxes. That is, the evaluation of liquidity cannot be done by comparing current assets and current liabilities, but by comparison of operating revenue and current obligations. Furthermore, tax revenues, which are

dominant in the public sector entities, are recorded at the time of collection and for this reason there is no problem of collection of receivables in assessing the liquidity.

While the budget revenues of municipalities are changing with the tax rates changing and economic activity of the municipality, budget expenditures are difficult to change because they are fixed by the nature. Examples of such expenses are salaries, material costs, and others. For the purposes of determining liquidity expenses of depreciation, impairment and others expenses do not take in account because it does not lead to an outflow from the research entities. The difference between budget revenues and budget expenditures is gross budget surplus/deficit. From this result, together with inflows from the sale of fixed assets and inflows arising from borrowing, public sector entities finance new projects as well as settlement of debts. Surplus/uncovered deficit exactly is the difference between the gross budget surplus/deficit and inflow of sales of fixed assets and inflow from borrowing, on the one hand, and outflows for the purchase of fixed assets and outflows for settlement of debts, on the other hand.

All the above is necessary to take into consideration when assessing the financial situation of the municipality that issued the bonds in order to get information about whether the municipality will be able to settle its liabilities arising from bonds and whether it will be reduce the quality of service delivery. However, first of all it is necessary to define the financial situation. The financial situation is a test developed to measure the stability of the government at the local or state level in order to assess the financial condition of the reporting entity and the provision of information to managers, rating agencies, and all other parties interested in the business of municipalities or the state[253]. This model might apply only if the reporting entity uses the accrual basis of accounting for the inclusion of elements and if measurement focus is on economic resources

GASB defined financial condition as a government's ability to adequately provide services to meet current and future obligations[254]. Other possible definition of the financial condition is financial achievement measured by the cumulative change in net assets, the fund equity or net cash flows[255]. Some researchers observe financial condition in the context of the financial crisis and the fiscal stress where the resources available for the provision of services are extremely limited[256]. "The most widely accepted definition of financial condition implies the ability of the reporting entity (the municipality) to settle financial liabilities within maturity, while providing the same level of service quality. During the process of providing services, the entity creates obligations that lead to the formation of costs or expenses. All these obligations require payment from the current or future financial resources. If the municipality can pay this obligation without significant financial stress can be assumed to be in good financial shape[257]."

[253] Wang, Dennis, Sen:“Measuring Financial Condition: A Study of U.S. States”, Public Budgeting & Finance, Vol. 27, No. 2, pp. 1-21, Summer 2007

[254] GASB, Concepts Statement No.1 of the Governmental Accounting Standards Board: Objectives of Financial Reporting (Norwalk, CT: GASB, 1987); Dean M. Mead (2001).

[255] GASB, Statement of the Governmental Accounting Standards Board No. 34: Basic Financial StatementsFand Management’s Discussion and AnalysisFfor State and Local Governments (Norwalk, CT: GASB, 1999); GASB, Statement No. 44 (Norwalk, CT: GASB, 2004); G. M. Jones, ‘‘Danger: This City Is in Financial Trouble,’’ Management Accounting 61, no. 4 (1979): 19–22; Barbara A. Chaney, Dean M. Mead, and Kenneth R. Shermann, ‘‘The New Governmental Financial Reporting Model: What It Means for Analyzing Governmental Financial Condition,’’ Journal of Governmental Financial Management 51, no.1 (Spring 2002): 26–31.

[256] James W. Douglas and Ronald K. Gaddie, ‘‘State Rainy Day Funds and Fiscal Crises: Rainy Day Funds and the 1990–1991 Recession Revisited,’’ Public Budgeting and Finance 22, no. 1 (Spring 2002): 19– 30; Yilin Hou, ‘‘What Stabilizes State General Fund Expenditures in Downturn YearsFBudget Stabilization Fund or General Fund Unreserved Undesignated Balance,’’ Public Budgeting and Finance 23, no. 3 (Fall 2003): 64–91; Michael Wolkoff, ‘‘An Evaluation of Municipal Rainy Day Funds,’’ Public Budgeting and Finance 7, no. 2 (1987): 52–63

[257] ICMA (2003); Charles H. Levine, ‘‘Organizational Decline and Cutback Management,’’ Public Administration Review 38, no. 4 (1978): 316–325; Charles H. Levine, Managing Fiscal Stress: The Crisis in the Public Sector (Chatham, NJ: Chatham House, 1980): 3–9. Steven Finkler, Financial Management for Public, Health, and Not-for-

Analysis of financial condition should give answers to the following questions:

- whether the municipality will be able to pay the debts on maturity in the future (which is the assessment of liquidity); and
- whether the municipality will continue provide the same level of services to citizens in the future, or whether there is space for improvement of these services.

Accordingly, the financial condition consists of fiscal and service capacity. Fiscal capacity means the ability and willingness to fulfill the obligations on maturity while service capacity is the ability and willingness to meet obligations and provide services to citizens. Financial considerations as the level of financial solvency can be assessed through indicators that measure cash, budget, and the long-term solvency of the provision of services[258]. Cash solvency is the ability to generate sufficient cash within about 30-60 days to be paid liabilities. Budget solvency involves generating revenue during the normal budget period to cover the expenses of the period. Long-term solvency shows the impact of existing long-term liabilities on future resources, while the solvency of the provision of services means the ability to provide services at the level and quality required by the citizens.

Beside assessment of the current financial situation of the municipality, in order to obtain information about the impact of current political decisions on the future performance of the municipality, it is necessary to assess sustainability of existing policy, whether the municipal budget is flexible and which factors may endanger or impair the financial condition. Canadian Institute of Certified Accountants[259] in 1997 published a report on the indicators of the government's financial situation. According to this report indicators that best describe the financial situation are grouped according to the basic elements of financial condition: sustainability, flexibility and vulnerability.

Sustainability is the extent to which municipalities can maintain existing programs and meet existing obligations without increasing debt level. In assessing the sustainability one of the important indicators is gross budget surplus/deficit, which shows the extent to which the government is spending more or less than the actual revenues in a fiscal year. This indicator should be complemented by unallocated surplus/uncovered deficit that shows the difference between all inflows during the fiscal year and the total outflow. This indicator, if negative indicates that the amount of liabilities in the current year will be financed from the inflows of next year. On this basis, citizens will have less resource available and less services provided. Another important indicator is the amount of net debt, where net debt is the difference between all liabilities and financial assets that can be used either to pay debt or for reinvestment. Time comparison of these indicators can identify trends. Net assets as the difference between assets and liabilities can indicate that the municipality reduces the supstance used for the provision of services.

Flexibility (elasticity) is the extent to which a government can increase its financial resources to respond to the growing obligations, either by increasing revenue or increasing debt. Important indicators of flexibility are:

Profit Organizations (Upper Saddle River, NJ: Prentice-Hall, 2001); Richard Higgins, ‘‘Strategies for Management of Decline and Productivity Improvement in Local Government,’’Public Productivity Review 8, no. 4 (1984): 332–352.

[258] ICMA(2003); Robert Berne (1992); Beth W. Honadle, James M. Costa, and Beverly A. Cigler, Fiscal Health for Local Governments: An Introduction to Concepts, Practical Analysis and Strategies (San Diego, CA: Elsevier Academic Press, 2004): 139–176; Dean M. Mead (2001).

[259] Indicators of Government Financial Condition, 1997 published by the Canadian Institute of Chartered Accountants.

Indicators	***Calculation***
Interest expenses-to-revenues	Interest expense/Operating revenues
The share of budget surplus(deficit) in revenue	Gross budget surplus(deficit)/operating revenue
Debt servising costs-to-revenue	Annual annuity/Operating revenue
Debt servising costs-to-budget surplus	Gross budget surplus/annual annuity
Elasticity of debt servicing	(Gross budget surplus-annual annuity)/ gross revenue

The interpretation of the above indicators is necessary to properly define the operating revenues in the public sector entity. The municipality generates operating revenue by performing its basic activities, such as tax and non-tax revenues. One part of these revenues is realized by distributing from various levels of government and can be found in the balance of the municipality named income from transfers from other levels of government. In this way, allocated revenues to municipalities also constitute operating revenues. Non-operating revenues are revenues collected from aid or grants that arise sporadically, it cannot be planed nor it may be affected by the reporting entity.

The burden of revenues by interest expenses shows which percentage of the revenue municipality uses for interest payment. Increasing during the period leave less space for municipalities to provide better quality services to the public, or in some cases the need for the abolition of individual programs.

The share of gross budgetary surplus (deficit) in revenue is indicator of the space that municipalities can use to improve standards of citizens through or additional investments in infrastructure or increase of giving. A lower percentage indicates that municipalities do not have the space for new policies, but revenue is captured by the effects of a prior policy.

The burden of revenues by annual annuity shows burden of revenues by fixed outflows. A higher percentage indicates less flexibility of financial management of municipalities. This ratio should be calculated for a longer period of time since sometimes the loans or bonds are issued with a grace period and do not lead to outflows for payment of debt in the early years. If you add other fixed outflows, you get the percentage of revenues that is trapped in the long run to cover expenses that cannot be reduced.

Coverage debt service by budget surplus indicator indicates the portion of revenues that is left after covering operating expenses for servicing an annual annuity. If the ratio is less than one entity needs additional obligation or sells assets to pay existing debts. The amendment to this indicator is an indicator of elasticity of servicing debt which expresses in percentage the part of total revenue which remains available to the municipality after covering operating expenses and the annual annuity.

Vulnerability is the degree of dependence on government sources of funding beyond their control or influence. The indicator measures the extent that the government can manage their financial affairs without the need to rely on others. An important indicator of vulnerability is the share of own revenues in the total revenues of the municipality. As noted above, one part of municipal revenues realized by redistributing the higher levels of government. On that revenue

municipalities cannot influence, since the national government makes a decision about the tax rate and manner of distribution between municipalities. Another source of municipal revenues is revenues which are determined directly by municipalities What is the share of revenues that are not under the control of the larger municipalities in total municipal revenues, the municipality has more endangered because it could not control the dominant source of their income.

2.2. Non-financial factors affecting the financial condition

For measurement the financial condition many researchers use a variety of indicators. Although there is no consensus on which indicators represent a definite concept of financial status, they all agree that financial situation is important for efficiency, effectiveness and economic delivery of public services. In assessing the financial situation it is necessary to take into account internal and external factors. According to research by the Office of the State Comptroller of New York[260] it is concluded that there is a high correlation between environmental factors and financial condition, and that the fiscal stress is visible in these indicators before is evident in the financial data.

Rating long-term fiscal sustainability involves the use of a wide range of financial and non-financial data. Non-financial factors that most influence the finances of the municipality are environment factors, among which, the business environment, demographic and social factors, and management factors are the most important. Environmental factors and administrative/managerial factors are analyzed and assessed in credit rating of the municipalities according to Moody's rating agency[261]. Economic factors or factors of economic environments are those on which the issuer cannot influence. They are critical in the economic analysis because the economic environment is what generates the resources used to pay liabilities arising from bonds. The analyst should assess the market position of the largest enterprises in the municipality and diversification of the biggest tax payers. The municipality, which is dependent on a number of the companies is very risky. One of the most important indicators of the business environment is the unemployment rate.

Demographic factors that are most interesting to analyze are the age of the inhabitants of the municipality, gender, average income, education, mortality, and population movements. For example, a municipality that has an aging population has higher expenditures for assistance to elderly and disabled persons; or the lower the income of the population increased spending on social programs. The growing communities are faced with increasing demand for infrastructure assets while mature municipalities must plan more funds for maintenance and development.

Managerial factors are the factors that are most difficult to assess. The organization, responsibility, professionalism, ability to perform the functions and the like, are just some of the organizational factors that represent managerial skills that actually shape the impact of environment on financial indicators. Willingness and ability of management may to some extent to mitigate the negative impact of environmental factors.

Use of non-financial information, especially socio-economic is very complex because it is not expressed numerically. For example, it is believed that population growth has a positive impact on the financial situation. However, a positive impact will come only if the population growth leads to a proportional increase in revenue that will finance the increased expenses from growth in demand for public services. Similarly, the higher income population should lead to increasing financial condition through the growth of tax revenues. However, the growth of incomes of the population could lead to demands for increased public spending in certain areas (education, better libraries, and

[260] Office of the New York State Comptroller, Financial condition analysis, New York
[261] Hird L., Lipnick, Y. Rattner, L. Ebrahim:"The Determinants of Municipal Credit Quality", Government finance review US, December 1999

better public transport) in line with the growth in standards of living. Based on the above, the analyst should be very carefully in using and analyzing non-financial information.

3. Analysis of the financial condition of municipalities in the Republic of Srpska

3.1. Municipal bonds issued in the Republic of Srpska

Financing the construction of infrastructure facilities, maintenance and development of the assets of local units, cannot be achieved with limited fiscal sources. All European countries are faced with this problem. Municipal bonds are in the world, especially in the United States proved to be the most important non-fiscal instrument for financing local government. Unlike the US, Europe dominates the market system based on specialized financial intermediary's special credit lines, either directly or through commercial banks, finance projects of local significance. Such financial institutions are a development bank that can act on the central state level or local specialized development banks. Local and state development banks by securitization of assets and liabilities obtain cheap funding on the international capital market and thus allow funding of local projects.

Municipal bonds issuing in the Republic of Srpska has started in 2007, by issuance of bonds of the Municipality Laktaši in amount of 10 million KM for construction of the sport hall. Based on the information presented on the website of Banja Luka Stock Exchange, seventeen municipalities issued bonds by 2014. For the purpose of issuing bonds, municipalities or their emissions agents constitute a public offer to potential customers to learn about the basic characteristics of the emission, the financial position of the issuer ,and on the basic of these information make a decision about investment and risk that accompanies investment. Basic information that is presented in the brochure are: report on the implementation of the budget, the consolidated balance sheet, income statement and cash flow statement for the past three years, the auditor's report, the strategy of development of the municipality, indebtedness, guarantees, litigation, and intended use of funds collected issuing bonds.

The following table provides an overview of the value of issued bonds, interest rate, date of issuing and the maturity of the bonds.

Table 1. Municipal bonds in Republic of Srpska[262]

Number	Issuer	Value of bonds	Interest rate	Date of issuing	Maturity date
1.	Municipality Bijeljina	11.000.000	6,75%	November 2009.	10 years
2.	Municipality Gradiška -first emission - second emission	 2.700.000 7.000.000	 6% 6%	 October 2008. November 2010.	 6 years 15 years (grejs period 10 years)
3.	Municipality Istočni Stari Grad	515.000	6%	May 2010.	10 years (grejs period 3 years)
4.	Municipality Kostajnica - first emission - second emission	 1.080.000 720.000	 6% 6%	 June 2011. March 2012.	 15 years (grejs period 1 years) 14 years
5.	Municipality Laktaši - first emission - second emission	 10.000.000 4.500.000	 5,75% 5%	 November 2007. January 2011.	 6 years 8 years (grejs period 4 years)

[262] Banja Luka Stoch Exchange www.blberza.com

6.	Municipality Novi grad	2.000.000	6,25%	October 2010.	15 years (grejs period 3 years)
7.	Municipality Brod	4.000.000	6,75%	March 2010.	10 years
8.	Municipality Kneževo	5.600.000	6%	December 2010.	20 years (grejs period 10 years)
9.	Municipality Kotor Varoš	4.500.000	6%	March 2010.	10 years (grejs period 3 years)
10.	Municipality Lopare - first emission - second emission	 422.500 277.500	 6,75% 6,75%	 July 2010. Decembyr 2010.	 10 years (grejs perid 1 years) 10 years (grejs perid 1 years)
11.	Municipality Osmaci	350.000	6,75%	July 2011.	7 years (grejs period 1 years)
12.	Municipality Petrovo	400.000	6%	November 2011.	10 years (grejs period 3 years)
13.	Municipality Srbac - first emission - second emission	 1.500.000 1.000.000	 5% 6%	 July 2010. November 2010.	 20 years 15 years (grejs period 10 years)
14.	Municipality Trnovo	850.000	6%	January 2012.	15 years (grejs period 3 years)
15.	Municipality Šipovo	1.700.000	7%	April 2012.	10 years
16.	Municipality Šamac	4.580.000	5,9%	July 2009.	10 years
17.	Municipality Zvornik	3.000.000	6,75%	July 2011.	10 years

As shown in Table 1. it can be seen the total value of issued bonds is 67.695 million KM. The largest part, about half of the issued bonds are purchased by the Investment and Development Bank of the Republic of Srpska.

Local borrowing is regulated by the Law on borrowing, debt and guarantees of the Republic of Srpska. Under this Act, municipalities can be long-term debt only if the total amount due for payment is not more than 18% of its regular revenues realized in the previous fiscal year. Short-term debt at any one time may not exceed 5% of regular revenues realized in the previous fiscal year. Regular revenue represents tax and non-tax revenues in the budget for which it is assumed that it will be repeated next year, including funds directly from the Account of the Indirect Taxation allocated for the payment of external debt of the Republic of Srpska and excluding all revenue and receipts as a result of one-off transactions.

Municipalities in the Republic of Srpska can borrow to finance capital investment and refinancing unpaid portion of long-term debt incurred in accordance with the financing of capital investments. Extremely municipalities can issue bonds to finance the transferred liabilities from previous years or for restructuring of a entity whose majority owner is municipality.

On the basis of the prospectus, the municipalities in the Republic of Srpska issued bonds for fallowing purposes.

Table 2. The purpose of issuing municipal bonds

Issuer	**The purpose of issuing municipal bonds**
Municipality Bijeljina	Building heating network and the installation of the boiler in the amount of 1.500.000 KM; Edited locations Prince Ivo of Semberija in the amount of KM 500.000; Regulation of industrial zones 2 and 3, in the amount of 4.000.000 KM; Construction of the Center for Culture in the amount of 5.000.000 KM
Municipality Gradiška - first emission - second emission	 - Construction of sports halls - Conversion of short term liabilities nastaliih in previous periods in long-term liabilities
Municipality Istočni Stari Grad	Investing in utility and refinance previous debts
Municipality Kostajnica	970.000 KM restructuring of existing commitments; 110.000 KM investing
Municipality Laktaši	Construction of sports halls Additional investment
Municipality Novi grad	1.100.000 KM paying off existing debt and invest 900.000 KM
Municipality Brod	Investing
Municipality Kneževo	Conversion of short-term into long-term liabilities
Municipality Kotor Varoš	1.500.000 KM conversion of short-term into long-term commitments; 3.000.000 KM investment
Municipality Lopare	Capital investments relating to paving existing roads Construction of road infrastructure
Osmaci Municipality	Remediation deficit 300.000 KM 50.000 KM investment
Municipality Petrovo	Investing in public kumunalno company
Municipality Srbac	600.000 KM rehabilitation budget; 900.000 KM investing 300.000 Investment; 700.000 KM of liabilities to suppliers for the reconstruction of the road network
Municipality Trnovo	Investing in the purchase of company
Municipality Šipovo	Investng in sport hall and administrative center
Municipality Šamac	Conversion short termin long term liabilities
Municipality Zvornik	Capital investment in recontruction of roads, sport hall and public lighting

Besides financing capital projects in the Republic of Srpska municipalities have issued bonds for refinancing existing debts or cover the budget deficit, in the amount of about 23 million or 34% of the issued bonds. In text below it will be presented how to determine whether municipalities are indebted, or which risks can lead to the insolvency of municipalities.

4. Analysis of the financial condition of municipalities which issued bonds in the Republic of Srpska

Analysis of the financial condition of the seventeen municipalities in the Republic of Srpska that issues bonds is performed using financial reports for 2012, 2013 and 2014. Financial condition of municipalities is made on the basis of selected indicators of liquidity, sustainability, flexibility

and vulnerability. The aim of this analysis is to determine whether the obligations arising from the bond affecting liquidity of issuers and whether the service potential of issuers is reduced.

Indicators of Liquidity

As previously highlighted liquidity of municipalities cannot be measured using ratio of short-term assets and short-term obligations because the municipality does not generate cash by selling the assets but collecting tax and non-tax levies. For these reasons, one of the important indicator of the liquidity is ratio of current liabilities to total revenues which shows the percentage of revenues which is spent for settling the current liabilities. Since the balance of current liabilities is their balance at the end of the accounting period, this indicator shows how much revenue generated in the future will be spent on the settlement of liabilities incurred in the previous period. The higher value of this indicator, the municipality is more burdened with short-term obligations. This indicator should be seen together with the gross budget surplus/deficit that indicates whether the generated revenue can cover budget expenditure. Another indicator is the share of the budget surplus/deficit in current liabilities. If the municipality has a surplus it can cover unpaid current liabilities in the future. In this way, current liabilities for services performed in one year shall not charge revenues in the following year. If the deficit is made, municipalities do not cover current expenditures from current revenues neither other current liabilities, such as liabilities from issued bonds, short-term loans and others.

Insert tabele 2.

The average share of current liabilities in total revenue of municipalities was 53% in 2012, 52% in 2013. and 56% in 2014. The ability to increase expenditures on new programs in the coming periods is denied in those municipalities where the share of current liabilities in total revenues is high. In nine municipalities, this indicator increases in 2014. compare to previous years.

How much of current liabilities can be covered from budget surplus shows another liquidity indicator. Municipalities that produce surplus in the whole observed period in 2012. could cover average 36% of current liabilities, in 2013. 32% and 30% in 2014. As share of current liabilities in total revenues increases, cover of current liabilities by budget surplus decline. However, there is growing number of municipalities that have achieved their budget deficits; in 2012. five municipalities, in 2013. four municipalities and seven municipalities in 2014.

From these indicators, we can establish that municipalities whose current debt is rising in relation to total revenue and realizing gross budget deficit may have potential problems with liquidity. These problems can be overcome by new borrowing which ultimately leads to a reduction in the service potential of these municipalities. Municipalities should increase budget surplus as they know that current liabilities are higher compare to previous year.

Sustainability indicators

Gross budget surplus (deficit) is a difference of budget revenues and budget expenditures. Municipalities that have achieved the deficit cannot cover the budget expenditures from the revenue, which means that liabilities arising from bonds may only pay by selling fixed assets or new borrowing. As presented in Table1. five municipalities in 2012., four in 2013. and seven in 2014. cannot cover operating expenses from operating revenues. Some of these expenses was not payed, that is way share of current liabilities in revenues increases.

Insert tabele 3.

Surplus was achieved by the five municipalities in 2012, four in 2013. and only three municipalities in 2014. Uncovered deficit means that current inflow from taxes, asset sales and new borrowing are not enough to pay all outstanding liabilities. Uncovered deficit is increased in all municipalities in the year when the first annuity due for payment. The numbers of municipalities that have uncovered deficit increase from year to year while that number in 2014. is 14. Uncovered deficit indicates that it is necessary to adopt a new approach to budget planning and execution. Liabilities arising from debt burden budgets and those municipalities that have achieved the gross budgetary surplus have uncovered deficit. As it can be seen municipalities did not design well its inflows and they have not source from which obligations will be returned.

Net debt as the difference between liabilities and financial assets shows that in 2014. compare to 2012. in seven municipalities had increase in net debt while in rest of municipalities net debt decreased. Net debt decrease as a result of a larger increase in financial assets relative to the increase in total liabilities, or higher decrease of obligations compare to the decrease of financial resources. Net assets as the difference between total assets and liabilities also decrease in seven municipalities in 2014. compared to 2012. The decrease in net assets is a direct reflection of the potential reduction of providing services to citizens in the future.

Municipalities should change their current policies because they are unsustainability measured by sustainability indicators. Uncovered deficit will lead to indebtedness and benefits from current investments and policies will burden future generations.

Flexibility indicators

Indicators of flexibility show the best how interest expense and liabilities arising from issued bonds are stretching the budgets of municipalities. Interest expense on the bonds except in the case of one municipality ranged from 1% -5% of operating revenues.

Insert tabele 4.

From the gross budgetary surplus municipalities should finance the purchase of fixed assets and payment of debts. In the reporting period, five municipalities increased participation of surplus in operating revenues in the reporting period, while in other municipalities this share decreased. Negative trend indicates that the municipalities have fewer funds in the forthcoming period for new capital investment or new projects.

Annual annuity participate in operating revenues as a percentage of 2% to 12% during the whole period. By municipalities this share has not changed significantly, which indicates that they have not significantly changed operating revenues.

One of the important indicators is the cover of servicing annuity, which indicates whether the gross budget surplus may settle liabilities arising from liabilities. In 2012. six municipalities could finance the payment of these liabilities from operating revenues, while the number of these municipalities in 2013. is nine and in 2014. seven.

The elasticity of debt payment in municipalities that have achieved a surplus in 2012, is from 1% to 21%, in 2013 from to 7% to 19%, while this interval is in 2014 from 2% to 18%.

Flexibility indicators are important when municipalities asses impact of revenues change on budget. Because interest expense and annuity are fixed, small change in revenue can lead to budget deficit or uncovered deficit of municipalities.

The impact of unforeseen external factors such as weather conditions in some municipalities is reflected on the realization of revenues. The share of these revenues in total revenues is 25% in 2012, 29% in 2013. and 26% in 2014 in average. In 2014.there was flood in some municipalities. Their own revenues decreased in compare to previous year.

Conclusion

In recent years, cities and municipalities in the Republic of Srpska missing funds for capital investments and for the settlement of accumulated short-term obligations collected by issuing long-term bonds. To municipal bond market function, it is essential that investors obtain information as to evaluate the financial condition of municipalities as issuers of these securities. However, since Investment and Development Bank in the Republic of Srpska purchases the largest part of these bonds, it is not surprising that information about the status of municipalities is not publicly available.

Issuing bonds at Banja Luka Stock Exchange, municipalities should make their work more transparent, as do other market participants. Transparency means primarily public disclosure of financial statements, in the way that these reports are defined by the International accounting Standards for the public sector, and audit reports. Since municipalities as public sector entities characterized by numerous distinctions, it is necessary to present projected budgets for the period of payment bonds. In addition to economic indicators, demographic and social indicators are also crucial.

Besides current and prospective financial and non-financial information, investors need to apply a certain technique of evaluating financial statements to assess the health of the municipality. A number of indicators that take into account the position of the balance sheet, income statement and budget can be used for analysis, although the most important would be indicators which are based on an assessment of the possibilities for the generation of tax and non-tax revenues.

All the above points to the need to provide complete information on the current and projected future financial condition of municipalities to assess the impact of debt on the status and performance of the municipality, and determine who enjoys the benefits and who bears the burden of debts; present or future generations. On this basis, it is possible to assess expected level of services which future generations can expect, or determine the amount of intergenerational equity.

Liquidity indicators suggest that municipalities whose current debt is rising in relation to total revenue and which realize gross budget deficit may have potential problems with liquidity. These problems can be overcome by new borrowing which ultimately leads to a reduction in the service potential of these municipalities. In almost all municipalities in which the surplus declined or who have made deficit, the share of current liabilities in total revenues increased. When issuing bonds, municipalities should increase budget surplus as they know that current liabilities will be higher compare to previous year.

Sustainability indicators show that 14 municipalities in 2014. have uncovered deficit, which indicates that municipalities have failed to settle their outstanding liabilities because sources for their reconciliation did not secured. In year of debt maturity uncovered deficit of municipalities is higher than in the previous year. In seven of the 17 municipalities there was a decrease in net assets and therefore also to reduce service potential. Municipalities should change their current policies

because they are unsustainability measured by sustainability indicators. Uncovered deficit will lead to indebtedness and benefits from current investments and policies will burden future generations.

Although annual annuity based on liabilities for issued bonds do not represent a large percentage of total revenue, most municipalities do not reconcile liabilities from the revenues because they realized deficit or surplus is not enough.

Based on these indicators it is possible to determine how liabilities from issued bonds affect the financial condition of municipalities and therefore the ability to provide the same or higher level of services to citizens in the future. These indicators are useful tool for analytical purpose. They can be used by management of municipalities as well by external users like banks, investors, analyst, public.

Literature

1. Ang A.; Green R.:"Lowering borrowing costs for states and municipalities through commommuni", The Hamilton project; discussion paper 2011-01, Washington, February 2011.
2. Barbara A. Chaney, Dean M. Mead, and Kenneth R. Shermann, ''The New Governmental Financial Reporting Model: What It Means for Analyzing Governmental Financial Condition,'' Journal of Governmental Financial Management 51, no.1 (Spring 2002): 26–31.
3. Brown Ken W.:"The 10-point test of financial condition:Toward an easy to use assesment tool for small cities", http://gfoa.org/services/dfl/bulletin/BUDGET-Ten-point-test.pdf
4. Dean M. Mead:"Concepts Statement No.1 of the Governmental Accounting Standards Board: Objectives of Financial Reporting, GASB, 2001.
5. Devjak S., Alves J., Ribeiro N., Monte A., Fernandes P.:" Quantitative analysis of financial indicators for municipalities: coparation between portugal and slovenia", Instituto Politecnico de Braganca, Portugal 2007.
6. Kablana A.:" Financial Statement Analysis in Municipalities and an Application", International Journal of Research in Business and Social Science IJRBS Vol.2 No.3, 2013 available online at www.ssbfnet.com
7. Hird L., Lipnick, Y. Rattner, L. Ebrahim:"The Determinants of Municipal Credit Quality", Government finance review US, December 1999.
8. Malinić, Milićević, Stevanović:"Upravljako računovodstvo", Centar za izdavačku djelatnost ekonosmkog fakulteta u Beogradu 2013. godina
9. Mikerević D.:"Finansijski menadžment", FINRAR i Ekonomski fakultet, Banja Luka 2012. godine
10. North J., Humphrey J., Jeamgocian A.,:"Moody's Approach To Analyzing Municipal Long-Term Debt" Report Number: 81248 Government Analysis, ferbruary 2004.
11. Orsag, S.:"Financiranje emisijom vrijednosnih papira", RIFIN, Zagreb, 1997. godina
12. Peteghem and Christiaens: Government reforms: consequence for determing the «financial equilibrium»; Ghent University, Belgium 2005.
13. Poljašević J.:„Izvještavanje o dugoročnoj fiskalnoj održivosti i finansijskoj stabilnosti entiteta javnog sektora"; Acta ekonomika; Ekonomski Fakultet Banja Luka, Banja Luka 2012.
14. Poljašević J.:„Reforma državnog računovodstvenog sistema u cilju povećanja efikasnosti pružanja javnih usluga"; „Uticaj globalne finansijske krize na približavanje Bosne i Hercegovine Evropskoj Uniji"; zbornik radova, Ekonomski Fakultet Banja Luka, Banja Luka 2009. str.313-337
15. Robinson, M.: "Measuring compliance with the golden rule; Fiscal Studies 19, no 4; 1998.

16. Yilin Hou, ‘‘What Stabilizes State General Fund Expenditures in Downturn YearsFBudget Stabilization Fund or General Fund Unreserved Undesignated Balance,’’ Public Budgeting and Finance 23, no. 3 (Fall 2003)
17. Wang, Dennis, Sen:“Measuring Financial Condition: A Study of U.S. States”, Public Budgeting & Finance, Vol. 27, No. 2, pp. 1-21, Summer 2007.

Table 2.

		Liquidity indicators					
		Current liabilities/gross revenues			Gross budget surplus/current liabilities		
	Municipality	2012	2013	2014	2012	2013	2014
1	Bijeljina	0.32	0.48	0.49	0.07	0.20	0.34
2	Gradiška	0.55	0.48	0.53	0.42	0.35	0.36
3	Istočni stari grad	0.67	0.37	0.48	-0.07	0.62	0.47
4	Kostajnica	0.78	0.92	0.47	-0.28	-0.10	-0.03
5	Laktaši	0.54	0.34	0.51	0.32	0.67	0.23
6	Novi grad	0.28	0.39	0.36	0.53	0.27	0.35
7	Brod	0.44	0.17	0.30	0.41	0.14	0.23
8	Kneževo	0.93	1.00	0.83	-0.10	-0.05	0.12
9	Kotor varoš	0.19	0.20	0.24	1.35	0.93	0.66
10	Lopare	0.53	0.67	0.88	0.01	-0.09	-0.03
11	Osmaci	0.39	0.63	0.59	0.36	0.01	0.17
12	Petrovo	0.43	0.71	0.87	0.28	0.54	0.11
13	Srbac	0.43	0.71	0.87	0.13	0.01	-0.03
14	Trnovo	0.52	0.18	0.31	-0.82	-0.36	-0.19
15	Šipovo	0.54	0.47	0.63	0.34	0.39	-0.03
16	Šamac	0.79	0.64	0.89	-0.10	0.04	-0.13
17	Zvornik	0.64	0.67	0.60	0.05	0.03	-0.02
Avarage		0.53	0.53	0.58	0.36	0.32	0.30

Table 3.

		Sustainability indicators											
		Gross budget surplus (deficit)			Sufict (Uncoverd deficit)			Net debt			Net assets		
	Municipalities	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
1	Bijeljina	1,116,290	3,506,514	6,089,027	158,453	-10,067,321	119,302	46,427,123	52,868,665	62,473,935	212,686,436	213,698,240	214,710,043
2	Gradiška	5,012,974	3,399,722	3,956,070	-792,803	-1,408	513,000	27,478,736	19,667,942	16,400,541	180,711,021	178,633,225	176,555,429
3	Istočni stari grad	-42,480	288,425	301,649	153,349	3,871	-172,655	1,337,970	1,027,810	685,827	13,846,762	16,786,312	19,725,862
4	Kostajnica	-489,815	-194,549	-24,810	-401,726	117,761	-199,189	4,008,254	4,368,200	2,832,024	9,964,707	10,280,767	10,596,826
5	Laktaši	2,712,934	3,446,843	1,606,220	-769,254	-1,235,827	-1,657,953	18,393,573	13,661,563	11,646,233	151,408,847	154,158,534	156,908,222
6	Novi grad	1,302,550	842,694	1,086,494	212,460	219,031	-68,452	8,778,540	9,650,463	9,062,892	92,051,546	91,987,667	91,923,788
7	Brod	930,628	189,889	525,127	-270,415	-596,025	-843,287	3,134,767	130,440	591,452	82,869,359	82,615,435	82,361,510
8	Kneževo	-326,909	-144,282	336,948	264,777	-274,789	-111,117	9,965,203	9,300,160	8,478,958	33,956,157	34,751,073	35,545,988
9	Kotor varoš	1,968,211	1,244,067	1,046,086	-114,627	-111,221	-882,090	5,622,354	7,281,753	4,730,341	35,175,293	37,401,688	39,628,083
10	Lopare	12,912	-234,124	-110,746	-217,848	-44,394	-50,366	3,834,882	4,794,426	5,021,824	22,035,833	21,036,914	20,037,995
11	Osmaci	186,582	7,895	138,940	258,997	-285,168	-178,923	1,090,559	1,313,181	1,350,908	7,864,213	8,033,573	8,202,934
12	Petrovo	257,020	315,105	114,620	-502,469	-1,027,486	-1,064,725	2,006,155	1,737,026	2,077,018	10,240,993	10,488,411	10,735,828
13	Srbac	358,085	41,833	-183,500	-86,635	-592,518	41,861	14,399,260	14,022,399	13,960,939	53,258,506	51,782,868	50,307,230
14	Trnovo	-577,473	-71,938	-64,471	-28,827	1,446,404	-298,684	685,067	1,159,194	1,304,154	48,432,728	44,702,079	40,971,430
15	Šipovo	717,871	717,553	-64,471	-532,371	-1,093,596	-1,297,255	1,927,082	2,170,091	1,902,592	12,138,545	12,588,517	13,038,489
16	Šamac	-423,913	134,758	-594,270	-1,093,596	-493,170	-242,968	1,568,427	217,105	-319,493	48,658,900	47,763,058	46,867,215
17	Zvornik	461,955	268,111	-168,750	-4,260,648	-493,170	-242,968	9,389,517	9,988,692	12,149,790	101,975,460	102,001,461	102,027,462

Table 4.

		Liquidity indicators						Flexibility inicators															Vulnerability indicator		
		Current liabilities/gross revenues			Gross budget surplus/current liabilities			Interest expenses/gross revenues			Gross bud.t surplus/oper. revenue			Annual annuity/operating revenue			Budeget surplus/annual annuity			(Surplus-ann. annuity)/revnues			Own revenues/gross revenues		
	Municipality	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
1	Bijeljina	0.32	0.48	0.49	0.07	0.20	0.34	0.01	0.02	0.01	0.02	0.10	0.16	0.02	0.03	0.03	1.22	3.59	5.83	0.00	0.07	0.14	0.28	0.33	0.29
2	Gradiška	0.55	0.48	0.53	0.42	0.35	0.36	0.02	0.02	0.02	0.23	0.17	0.19	0.02	0.02	0.02	11.14	7.55	8.79	0.21	0.15	0.17	0.35	0.37	0.36
3	Istočni stari grad	0.67	0.37	0.48	-0.07	0.62	0.47	0.04	0.00	0.03	-0.06	0.26	0.29	0.00	0.00	0.06	-0.82	5.60	4.79	-0.10	0.19	0.18	0.20	0.50	0.49
4	Kostajnica	0.78	0.92	0.47	-0.28	-0.10	-0.03	0.04	0.05	0.05	-0.22	-0.09	-0.01	0.00	0.00	0.04	-29.21	-2.26	-0.58	-0.23	-0.13	-0.03	0.23	0.24	0.22
5	Laktaši	0.54	0.34	0.51	0.32	0.67	0.23	0.03	0.02	0.02	0.18	0.23	0.12	0.11	0.12	0.07	1.54	1.85	1.72	0.06	0.10	0.05	0.28	0.35	0.31
6	Novi grad	0.28	0.39	0.36	0.53	0.27	0.35	0.02	0.02	0.01	0.16	0.10	0.13	0.00	0.02	0.02	9.77	6.32	8.15	0.13	0.09	0.11	0.18	0.21	0.21
7	Brod	0.44	0.17	0.30	0.41	0.14	0.23	0.05	0.03	0.02	0.18	0.02	0.07	0.06	0.04	0.03	2.89	0.55	2.15	0.12	-0.02	0.04	0.56	0.41	0.42
8	Kneževo	0.93	1.00	0.83	-0.10	-0.05	0.12	0.10	0.11	0.10	-0.10	-0.05	0.10	0.08	0.09	0.08	-1.17	-0.52	1.20	-0.18	-0.13	0.02	0.21	0.20	0.24
9	Kotor varoš	0.19	0.20	0.24	1.35	0.93	0.66	0.04	0.04	0.04	0.30	0.19	0.16	0.07	0.07	0.07	4.37	2.76	2.32	0.20	0.12	0.09	0.22	0.29	0.22
10	Lopare	0.53	0.67	0.88	0.01	-0.09	-0.03	0.01	0.01	0.01	0.00	-0.06	-0.03	0.02	0.02	0.02	0.18	-3.34	-1.58	-0.01	-0.08	-0.04	0.13	0.13	0.13
11	Osmaci	0.39	0.63	0.59	0.36	0.01	0.17	0.02	0.02	0.01	0.14	0.01	0.10	0.04	0.04	0.04	3.73	0.16	2.65	0.10	-0.03	0.06	0.15	0.17	0.16
12	Petrovo	0.43	0.71	0.87	0.28	0.54	0.11	0.00	0.01	0.01	0.10	0.13	0.05	0.00	0.00	0.02	6.43	7.88	2.87	0.08	0.12	0.03	0.14	0.14	0.12
13	Srbac	0.43	0.71	0.87	0.13	0.01	-0.03	0.02	0.02	0.02	0.06	0.01	-0.03	0.02	0.02	0.02	2.53	0.30	-1.27	0.03	-0.02	-0.05	0.20	0.21	0.14
14	Trnovo	0.52	0.18	0.31	-0.82	-0.36	-0.19	0.02	0.05	0.05	-0.44	-0.07	-0.06	0.04	0.05	0.05	-10.19	-1.27	-1.14	-0.47	-0.12	-0.11	0.42	0.51	0.48
15	Šipovo	0.54	0.47	0.63	0.34	0.39	-0.03	0.00	0.03	0.01	0.18	0.18	-0.02	0.04	0.04	0.05	4.22	4.22	-0.38	0.14	0.14	-0.06	0.27	0.31	0.20
16	Šamac	0.79	0.64	0.89	-0.10	0.04	-0.13	0.05	0.05	0.05	-0.08	0.02	-0.12	0.08	0.09	0.06	-0.93	0.25	-1.84	-0.16	-0.07	-0.18	0.19	0.30	0.18
17	Zvornik	0.64	0.67	0.60	0.05	0.03	-0.02	0.01	0.01	0.01	0.03	0.02	-0.01	0.02	0.02	0.02	1.54	0.89	-0.56	0.01	0.00	-0.03	0.19	0.23	0.19

THE INFLUENCE OF THE TANGIBLE AND INTAGIBLE ASSETS ON THE SMES SUCCESS. THE ALBANIAN CASE

Ph.D. Ylvije (Boriçi) KRAJA,

Department of Business Administration, Faculty of Economy

University of Shkodra "LuigjGurakuqi", Albania

ykraja@unishk.edu.al

Abstract

Nowadays, small and medium enterprises are recognized as the backbone of the economy. It is now widely accepted that SMEs exert a strong influence on the economies of all countries. Hence, small enterprises have a vital role in the economy. After more than two decades of transition to a market economy, Albanian businesses were facing a lot of challenges. New enterprises already make up the vast majority of private businesses operating in Albania and because of their size and adaptability are likely to be the main source of job creation. The purpose of the study is to examine the relationship between tangible and intangible assets. The importance of distinctive competencies, capabilities, skills, good reputation as determinants of a firm's success is increased tremendously during past years. Methodology used in this research consists in a combination of qualitative and quantitative method. A random sampling of 1120 participants was used to select SMEs throughout Albania. Based on the 475 respondents who indicated interest in completing the questionnaire empirical analysis was done. SPSS software was used for analysis. Based on exploratory factor analysis and descriptive statistics, results were revealed. Finally this research is important because it highlighted the influence of the intangible assets and tangible assets to the firm's success, and also it offers some suitable recommendations to SME managers or owners.

***Key words**: tangible assets, intangible assets, SMEs, resource -based view, strategies, success...*

Introduction

The globalization of the economy, growth of competition brought tremendous challenges for small and medium enterprises. SMEs play a key role in Albania in generating employment, innovation, competition and creating economic wealth. SMEs play a great role in the sustainable economic growth and improvement in living standard. In Albania a large number of firms are owner-controlled family businesses. The size of the firm has an important role in business performance. SMEs are facing a lot of challenges. Successful SMEs and oriented toward increase are vital for economy (Analoui& Karami, 2003). According to Gordon et al. (2009) managing risk is a fundamental concern in today's dynamic global environment.

According to Barney (1991), tangible assets and intangible assets, combined with competences and controlled by the firm, make it possible to create and implement efficient strategies capable of producing organizational improvements in the long run. According to the Resource-Based View, the nature of the resources, competences and knowledge accumulated by firms are the major causes of variation in business performance (De Luca et al, 2014). Hoog (2008) sees intangible assets as property without physical substance, the useful life of which tends to be subjective, varying according to the rights resulting from ownership and the associated competitive advantages and profits, which may be acquired or developed internally. SMEs are the most important factor to understand the performance of a country.

This paper attempts to bring the problems for SME-s, by focusing on Albanian case. This study assesses small and medium enterprises and particularly intangible assets and tangible assets and their contribution in business success.

The purpose of this paper is to emphasize the growing importance of intangible assets for firm's success by considering both the high potential of the intangible and tangible assets to the SME's success. The researcher tries to extend our understanding and to shed light on the assessment of the impact of tangible assets and intangible assets in the lives of the SMEs in Albania.

Thus the paper is concentrated on the intangible factors as: distinctive competencies, the abilities to evaluate and use culture, skills, work experience, capabilities to create qualitative products and services, to manage human resources, to use technologies, to generate business plans and to clarify how ideas can be turned in reality, and tangible assets like land, buildings, machinery, inventory etc. Based on the fact that each firm is a unique combination of intangible and tangible assets, this paper encourages finding ways to discover intagible assets that are around SMEs, identifying ways to turn intangible assets into real values for businesses

From the above theoretical framework the following hypotheses were derived:

H.$_1$ SMEs are influenced by intangible assets and tangible assets.

H.$_2$ Intangible and tangible assets have a great impacting the success of small and medium enterprises.

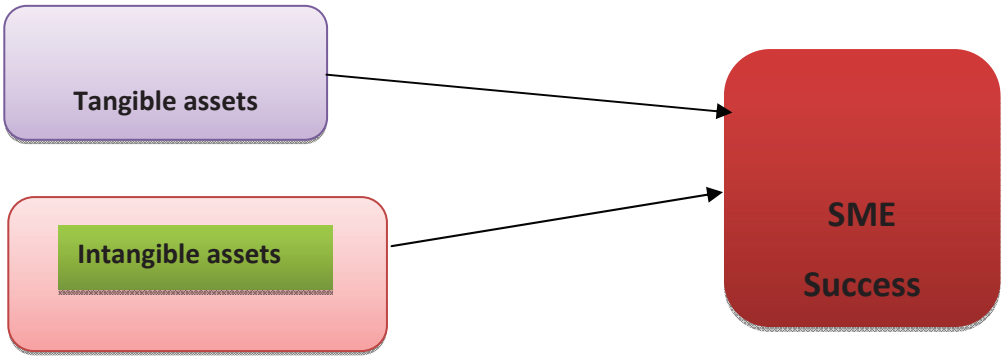


Figure 1: Conceptual model

Literature Review

The resource-based view of the firm (RBV) is an influential theoretical framework for understanding how competitive advantage within firms is achieved and how that advantage might be sustained over time (Barney, 1991).

Resources of firms include all assets, capabilities,organizational processes, attributes of firms, information, new knowledge, controlled by firms that know how to conceive and implement, to improve the effecience and its effectivety(Daft, 1983)[263]. According to Coplin, H. (2002) resources and products are two sides of the same coin. It is important to underline that more resources should be taken into account in the formulation of a strategy.

Resources are the center of attention and they can be financial, physical, human, technological or organizational (Barney, 1991). When firms accumulate resources which are rare, difficult to imitate, non-replaceable then they can have competitive advantage (Barney, 1991, 2001). According to Analou & Karami (2003) resources are assets, competency, process, capability and knowledge controlled by firms, which could be turned in strength if they could ensure competitive advantage. Company sources refer to the company's assets (Hill & Jones, 2010).

Intangible assets like any other asset (a machine or a rental property) is a source of future benefits, but in contrast with tangible assets, intangible assets lack physical embodiment (Lev B.2005) Intangible assets are resources and competences which may be combined to bring great success to SMES. Iudícibus et al. (2013) point out that while tangible assets are visually identifiable and segregated items in accounting, intangible assets may not be so. Intangibles differ from physical and financial (stocks, bond) assets in two important aspects that have considerable implications for management, valuation and the financial reporting of intangibles (LevB. 2005).

A source can be used for different purposes, in different ways or in combination with other resources to create other services. Internal sources provide all the possibilities and limitations of firm growth (Dickinson 2008).Barney, (1991) underlined that firm’s resources might be source of competitive advantage or sustainable advantage when resources are available.

Grant (1998) emphasized the importance of the resources and capabilities to the five steps model in formulating a company's strategy:

1. Identifying and clasiffying the firm’s resources
2. Identifying skills and resources of input for each case.

[263]*Barney, J (1991). "Firm Resources and Sustained Competetive Advantage" Journal Management, 1991, Volumi 17, N1, 99-120*

3. Evaluating resources and capabilities in terms of their potential to create sustainable competitive advantage.
4. Choosing a strategy that best suits the firm's resources and environmental opportunities.
5. Identification of shortages of resources and investment to improve them.

Unique assets and capabilities of the firm are essential for optimizing the performance of firms. The available resources to the firm, as well as their special characteristics, are considered the main reasons for having distinctive skills and thus organizational increase (Dickinson, 2008). According to Hill & Jones (1998) capabilities refers to skills, competencies to coordinate resources and using them in an effective way. They stated that firms compentecies are products of organizational structure and control systems. A company may have resources and unique values, but if there is no ability to use these resources actively it may not be able to successed over other competitors in the market.

Cof (1994) argues that human assets are a major source of sustainable advantage because of ambiguity and systematic information, making it inimitable. Human capital could be the most important factor in order to be successfull because it is difficult to imitate, says Guest (1990),

The most important and strategic sources of of SMEs are employees (Analoui & Karami, 2003). While John & Hill (2010) point out that there are a number of ways that human resources can help companies create more value. If management believes in it's employees and gives them challenging appointment, says Guest (1990)[264], employees in return will respond with high motivation and high performance.SMEs in order to generate healthy businesses need to initially understand their internal and external environment (Kraja, Boriçi, Y&Osmani, E., 2015).

Many studies have been undertaken that are based on testing the relation between tangible and intagible assets. It is interesting to note that recent empirical studies show that the contribution of intangible assets is comparable to that of tangible assets for a wide range of countries. Corradoet. et. al (2005), the results in this paper shows that intangible assets have a greater impact than tangible assets to SMEs. As far as we know it is not easy to manage intangible assets. Resources of a business include all assets, capabilities, organizational process, information, knowledge, and other knowledge controlled by firms, which help them implement, improve efficiency and affectivity Barney (1991).

In their paper on RBV, (Collins & Mongomery, 1995) have declared that they see companies as diverse collections of physical assets, intangible assets and capabilities. According to them companies are different because companies do not follow the same set of experiences, or do not have the same organizational culture. Johansson (2008) in his study brings results of (Grant et.al.2004) according to him resources are an important factor and knowledge is the most important source. Good reputations is cited as a source of competitive advantage in the literature (Porter, 1980; John & Hill, 2010). Studies show that organizational resources are as important as human resources. SMEs need to know what are the resources that they possess and turn them to advantages for their business (Kraja, Boriçi Y.& Osman, E., 2014).

Capabilities are the skills of individuals or groups to interact and to manage resources. Managing a source according to Barney (1991) is a resource in itself, its ability. Capabilities are more difficult to define than resources Dickinson (2008). Hill & Jones (2010), when talking about the capabilities of a company we refer to abilities to coordinate resources and use them effectively.

[264] *Coff R.W. (1994) "Human Assets and organization control implication of the resource - based vieë ".*

Collis&Montgomery 1995; Hit & Ireland, 1985, Littler, 2005).

Capabilities are developed through a process of learning where employees of a firm repeatedly enhance their experience in solving problems (Dickinson, 2008)

Sharma &Vredenburg (1998) stated that companies which possess the ability to use information will integrate knowledge from outside in their businesses and will share this knowledge with different departments. They argued that, for example, oil companies of Sioux Buffalo, implement formal and informal meetings to share important information and discuss issues related to intervention in the business environment, and also pertaining the decision making and reducing environmental impacts in the company.

Research Methodology

Methodology used in this research consists in a combination of qualitative and quantitative method. A random sampling of 1120 participants was used to select SMEs throughout Albania. Based on the respondents who indicated interest in completing the questionnaire empirical analysis was done. The population of the study consisted on a final sample of475small and medium enterprises from different of SMEs in Albania. A questionnaire of some items of the seven point Likert scale was used to collect data for the study. The questionnaire was send using an electronic method but part of them were filled through face to face contact. Most of the participants were from the services sector, production sector, trade, construction sector, etc. To generate the data SPSS, version 21 is used.

“Intagible assets” is measured as the average of the thirteen questions.An exploratory factor analysis is done.One of the questions, “Difficulties to immitate” results with factorial weigh 0.398, lower than it is accepted according to (Hair et al.,1998). By the factorial analysis the rest of the 12 questionsresult in a component which explains 57.42 % of the total variance. The method of analysis with rotation Varimax is used. Cronbach’s Alpha was computed to assess the reliability. In our case Cronbach’s Alpha is 0.93, which is really a high one.

Based on descriptive analysis we concluded that 34.5 % of the participants were from the services sector, 29.3% of participants were from the production sector, 24.82% of participants were from trade, 5.4% of participants were from construction and the rest, 5.98 % of participants were from different sectors.

Table 1. Factor analysis Cronbach alpha's = 0.93

Intagible assets	
1. The abilities to create the qualitative products and services	0.709
2. Distinctive competencies	0.659
3. Having skills to communicate effectively values and goals	0.747
4. Capabilities to evaluate and to use the culture	0.757
5. Being a flexibel organizator	0.831
6. Capabilities to manage human resources	0.801
7. Capabilities in using the newest technology	0.757
8. Capabilities, skills, trainings and experience at work	0.802
9. Abilities on providing goods or services to satisfy market	0.705
10. Capabilities to generate business plans and to clarify that how ideas can be turned in reality.	0.809
11. Skills to analyze and to forecast new possibilities	0.746
12. Good reputation and having brand names	0.763

Questions are measured by Likert scale from 1 - 7 "Strongly Important" to "Strongly Unimportant".

"Tangible assets" is measured as the average of the threequestions. Factor analysis is done, using the "analysis with rotation Varimax" method. Reliability is measured by Cronbach Alpha, Questions result in a component. 63, 81 % of the total variance is explained by this component. Cronbach's Alpha is acceptable 0,713 (table 2).

Table2: Factor analysis Cronbach alpha's = 0.713

Tangible assets	
Buildings and land	0.734
Inventory	0.815
Machinery	0.844

Questions are measured by Likert scale from 1 - 7 "Strongly Important" to "Strongly Unimportant".

Initially, to understand the distribution of these variables descriptive statistics of the variables tangible assets and intangible assetswere evaluated. The Likert scale from: 1- "not important" to 7 "in extremely important" was used. These descriptive statistics are presented in the following table.

Table3: Descriptive *statistics for variables " Intagible and tangible assets"*

Variables	N	Mean	Std.Deviation
Intangibles assets	474	5.5499	1.12373
Tangible assets	474	3.5886	1.01862

$H_{1:}$ $\mu_{intagible\ assets} > \mu_{tangible\ assets}$

By comparing averages of these two variables from T-test analysis (Paired-Sample Test) it results that the average of intangible resources is higher than the average of tangible resources. It is exactly (M = 5.5499 and Std. Dev = 1.12) and (M = 3.5886 and Std.D = 1.49) however it could be said that this difference for α = 0.05 is important because (t (474) = 1.01862, and α = 0,000) as a result the hypothesis, $H._1$is accepted, which means that:

μ intangible assets > μ tangibles assets.

Based on this result we can say that intangible assets have greater impact than tangible assets to SMEs.

H.2 Intangible assets have more impact on success of small and medium enterprises than tangible assets.

To examine this multiple regression analysis is used. Dependent variable "success" is measured as the average of 3 questions. It was conducted an exploratory factor analysis, using the analysis with rotation Varimax method. These 3 questions resulted in a factor which explains 67.76% of total variance. The results of this analyse are given in the Table 4. The reliability coefficient is 0.745, acceptable to go on with the analysis.

Table 4. Factor analyses Cronbach Alpha 0.745

Success	
ROI	0,822
Income	0,823
Market share	0,816

Questions are measured by Likert scale from 1. - 5 (disagree - very much agree).

Factor analyses is used to assess the factors. Multicollinearity refers to the correlation among independet variables (Hair et al.,1998). As it shown in the Table 5.The Pearson Correlation is acceptable to go on with the regression analysis because the values are less than 0.7.

Table 5 “Correlation” "intagible assets " and "tangible assets",

Variables	1	2
1. Pearson correlation Sig 2 tailed	1	
2. Pearson correlation Sig 2-tailed	0,233**	1

*** Correlation is significant at the 0.01 level (2- tailed)*

** Correlation 0.05 (2-tailed)*

Table 6. Multiply rregression analysis for dependent variable "success of SME"

Model	R^2	Adjusted R^2	t value	Sig.
	0,314	0,311		
(constant)			7.172	0,000
Intangible assets			11.978	0,000
Tangible assets			5.471	0,000

The correlation coefficient squared, R^2 is 0.314, also referred to as the coefficient of determination. This value indicates the percentage of total variation of Y explained by x_1 and x_2. The multiple regression equation in our case is as following.

$$\hat{Y} = \beta_0 + \beta_1 x_1 + \beta_2 x_2$$

Where:,

$\hat{Y}$ = dependet variable, "success"

X1= predictor “intangible assets”

X2 = predictor “tangible assets"

Using the unstandartized regression coefficient, or beta, multiply regression equation can be presented as follows:

"success" = 1.329+ 0,363"intangible assets" + 0,183 "tangible assets"

Coefficient of the independent variable "tangible assets" *and "intangible assets"* are positive, which means that they have a positive impact on the SMEs success. Based on regression analysis it results that independents variable explain 31.4 % of the variance of the dependet variable “succes”, and this is not by chance. Unstandardized coefficient are (B_1=0,363) and (B_2= 0,183). Results show that regression model with the value F(2,473)= 107.778 has meaning for (p=0,00) significance level of (0,05), because in this case p=0,000 is less than 0,05. By statistical test of controlling the individual regression coeficient is taken the same result (t_1= 11.978 and p=0,000; t_2=5.471 and p= 0,000), these coeficients are different by zero which means they contribute to this model. As it could be seen (B_1=0,363) unstandertizied coefficient of intangible assets and (B_2= 0.183) unsterndatizied coefficient of tangible assets both are positive but B_1has greater impact on the succes. So, it resutlts H_2: It is supported**.**

.

Limitations of the study

As any empirical study this study presents limitations:

- A limitation of the study is the fact that the application in different branches of industry can be different. So many industries may have different success factors.
- Another limitation, relates to the fact that the sample has not included informal SMEs. This means that the population obtained in the study is not representative of all SMEs operating in the districts included in the study. In other words, the sample of the study was limited to only formal SMES. It would be good to stretch the study in the entirety of businesses as to also reflect the views and practices of informal SMEs, which are not small in number.

Conclusions

SMEs are considered generators of economic growth and development of country. Therefore their role is becoming more and more important. Based on information collected through the use of mixes method, qualitative methods and quantitative methods, and based on statistical data analysis very important conclusions for SMEs were reached. The study also revealed that tangible and intangible assets, which are very complex, unstable and sometimes insecure have a strong impact on the SMEs success. The influence of the intangible on SMEs is very strong.

Organizations today are characterized by a complex relationship of different actors, so it is important to establish competitive advantages and create value by managing efficiently the missing resources to cope with fierce competition, and to successfully face the challenges faced by SMEs.

Access to information, advice, training activities and participation in conferences, etc., help businesses increase access to the use, processing, information dissemination and implementation of information analysis. In many SMEs, the staff is the most important asset.

Another objective of the study was to analyze the impact that intangible and tangible resources have to SMEs. The analysis conducted, that intangible resources have more impact than tangible resources to SMEs.

It is evident from the study that intangible resources significantly affect SME success. The analysis showed that success is positively related to intangible resources. This result is in the same direction with the results and achievements and reached by various studies that have shown a positive relationship that exists between intangible resources and success such as the study of Bontis et al., (2000) showed positive links between the two.

Recommendations

The researcher recommends doing further research in this area, studying and discovering further factors additional to those taken into account, leading to the success of the SMEs.

The study showed that intangible resources have greater impact than tangible resources to the performance of SMEs. This does not exclude the impact of tangible resources but it is recommended for managers to pay attention to every element, to each aspect that contributes to the creation, growth and consolidation of tangible and intangible resources. This means that managers, executives, owners of SMEs should be supported and should pay attention to growth and consolidation of all those factors that are included in this study which resulted in very important (factors that were taken to measure intangible resources), such as:

- Abilities to provide goods or services to satisfy the market
- transmitting knowledge;

- relying on the good reputation of the firm and in the confidence to moreover increased;
- evaluating and using culture; in planned and flexible organization
- being able to adjust to new technologies, and advanced software;
- having skills to communicate effectively values and goals

References

1. Analoui F. &Karami A., (2003), *'Strategic Management'. In small and Medium Enterprises*. Thomson Learning 2003.
2. Barney J., (1991), *'Firm Resources and Sustained Competitive Advantag*e' Journal Management 1991, Volume 17, N1, 99-120
3. Barnes, Y. B. & William S.H., (2010), *'Strategic Management and Competitive Advantage. Concepts and cases'*. Third Edition. Prentice Hall fq.10.
4. Barney, J.B& Mackey, T.B., (2005). *'Testing resource-based theory'. In research Methodology in Strategy and Management*. Vol 2. fq 1-13.
5. Coff, R.W.,(1994),*'Human Assets and Organization control i of the resource based view*', St. Louis, Olin, M.J, School of Business, Uashington University
6. Collins DJ, Mongomery CA, (1995), *Competing on Resources: strategy in the 1990*s. Harvard Business Review 73 (4): 118-128
7. Coplin, H.C.L., (2002),"*Competitive advantage and the SME': The role of the distinctive competences as the determinants of success are there differences across gender, sector and size*" Spain.
8. Corrado C., C .Hulten&Sichel D., (2009) "*Intangible Capital and U.S. Economic Growth,*" Review of Income and Wealth, September 2009, No. 3.
9. Corrado C., C. Hulten&Sichel D., (2005) "*Measuring Capital and Technology: An Expanded Framework,*" chapter in Measuring Capital in the New Economy. University of Chicago Press, August.
10. De Luca, M.; Ribeiro Maia, A; Da Costa, V.; De Vasconcelos, C.&Da Cunha, J.(2014). "*Intangible Assets and Superior and Sustained Performance of Innovative Brazilian Firms*"; http://www.anpad.org.br/bar
11. Hair, J.F., Anderson, R.E., Tatham, R.L. & Back, W.C., (1998). *Multivariate Data Analysis*, Fifth Edition, New Jersey: Prentice Hall.
12. Hill Ch.W.L., & Jones G.R., (2008),*'Strategic Management Theory*, An integrated approach, 9th Edition, South -Western Cengage Learning.
13. Hoog, W. A. Z. (2008). *Fundo de comércio goodwill em: apuração de haveres, balanço patrimonial, danoemergente, lucrocessante, locaçãonãoresidencial.* Curitiba: JuruáEditora.
14. Iudícibus, S. De, Martins E., Gelbcke, E. R., & Santos, A. dos (2013). Manual de contabilidadesocietária: aplicável a todas as sociedades de acordo com as normasinternacionais e do CPC (2a ed.). São Paulo: Atla
15. Johansson J.,(2008),*'Essays on collaborative processes among SMEs for competitiveness development*'. Doctoral Thesis (fq81).
16. Kraja Boriçi Y. & Osmani E. (2014). "*The role of government policy in supporting SMEs*". International Conference with the theme "Fostering sustainable development through creation of knowledge society" Peje. Kosove
17. Kraja Boriçi Y. & Osmani E. (2015). "*Importance of external and internal environment in creatin of competititeve advantage to SMEs.*" European Scientific Journal. May 2015, Vol 11. No. 13, (120-131)
18. Lev B. (2005). *Intagible Assets: Concepts and Measurements*. Encyclopedia of Social Measurement, Volume 2. New York University, New York, USA.

19. Mackie, C., (2009). “I*ntangible assets. Measuring and enhancing their contribution to Corporate value and economic growth*: Summary of workshop. The National Academic Press. www.nap.edu
20. Petkov R.(2012). “Competitive advantage from internally generated intangible assets measured at fair value fair value for Bulgarian small and medium sized enterprises (SME).
21. Penrose E. T., (1959), *'The Theory of the Growth of the Firm*', New York: John Wiley
22. Porter M.E.,(1980), *'Competitive advantage*', New York. Free Press.
23. Sharma, S. &Vredenburg,H.(1998). “*Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities*”. Strategic Management Journal, 19(8): 729-753.

THE IMPORTANCE OF PUBLIC-PRIVATE PARTNERSHIPS IN IMPROVING ECONOMIC DEVELOPMENT AND THE ROLE OF PERFORMANCE AUDIT IN ITS FUNCTIONING

Branka Topić-Pavković, PhD[265],

Svjetlana Vranješ, MSc[266]

Abstract

While the modern economy reviews the issue of the level of participation and efficiency of state interference in the private sector and the real economy, the inevitable facts show the positive effects of public-private partnerships (PPPs). The main goal of public-private partnership is more economical and successful construction of facilities, production of goods and increase in quality of public services compared to the the traditional manner. Cooperation between the public and private sectors is reflected in the creation of added value, increasing efficiency and meeting the interests of all sides. Private investors have the option of investment in new markets, but also contributing to the project which is attractive from a commercial standpoint. On the other hand, the public sector achieves better service levels or the same level of quality at lower prices by applying this model. The main goal of this paper is to examine the concept of public-private partnerships, its main objectives, forms and principles of PPPs, and the benefits of implementation of this model in practice. Although the results show that PPPs tends to become the model and instrument for economic development we must indicate the complexity of its structure because of the need to reconcile the aims of the large number of parties involved. On the public-sector side there are public authorities creating and implementing public-private partnership policies, the private-sector side that represents investors, lenders, and companies providing construction and operational services, and the general public who use the facilities that a PPP provides as well. This paper also implies the role of performance audit in fostering constructs of public-private partnerships. Performance auditing has been described as an evaluation of an organization to see if the resources are managed respecting the economy, efficiency and effectiveness. Namely, performance audit assess whether organizations in public-private partnership are undertaking their functions efficiently, effectively and economically. These are often referred as the three E's. In auditing for economy, the objective is to find out whether resources have been procured in the right quantity, at the right place, at the right time and at the appropriate cost. On the other hand, efficiency audit relates inputs and outputs with a view to ascertaining efficient use of resources. Effectiveness audit examines the extent of the objectives that organization achieved in public-private partnership. We conclude that correct and successful implementation of the model of public-private partnerships together with the introduction of performance audit, contribute to economic and social development, with a notable increase in the quality of the public services while realizing interests of the private sector.

Keywords: *public-private partnerships, performance audit, public sector, public sector audit, economic growth*

[265] Faculty of Economics, University of Banja Luka, Majke Jugovića 4, 78000 Banja Luka, E-mail: branka.topic-pavkovic@efbl.org

[266] Faculty of Economics, University of Banja Luka, Majke Jugovića 4, 78000 Banja Luka, E-mail: svjetlana.vranjes@efbl.org

1. Introduction

A growing number of developing country governments are interested in using Public-Private Partnerships (PPPs) to provide public infrastructure assets and services. PPPs has become increasingly popular as a way of procuring and maintaining public-sector infrastructure, in sectors such as transportation (roads, bridges, tunnels, railways, ports, airports), social infrastructure (hospitals, schools, prisons, social housing), public utilities (water supply, waste water treatment, waste disposal), government offices and other accommodation, and other specialized services (such as communications networks or defense equipment). While the modern economy reviews the issue of the level of participation and efficiency of state interference in the private sector and the real economy, the inevitable facts show the positive effects of public-private partnerships. The main goal of public-private partnership is more economical and successful construction of facilities, production of goods and increase in quality of public services compared to the the traditional manner. Referring to the definition of public-private partnerships that could be described as cooperation between the public and private sectors in the field of production planning, service delivery financing, business or charge of public affairs, we see that cooperation between state institutions and the private sector reflected through the creation of added value, increase efficiency and serving interests of both sides.

Private investors have the option of investment in new markets, but also contributing to the project which is attractive from a commercial standpoint. On the other hand, the public sector achieves better service levels or the same level of quality at lower prices by applying this model. The main goal of this paper is to examine the concept of public-private partnerships, its main objectives, forms and principles of PPPs, and the benefits of implementation of this model in practice. Although the results show that PPPs tends to become the model and instrument for economic development we must indicate the complexity of its structure because of the need to reconcile the aims of the large number of parties involved. On the public-sector side there are public authorities creating and implementing public-private partnership policies, the private-sector side that represents investors, lenders, and companies providing construction and operational services, and the general public who use the facilities that a PPP provides as well. Cooperation between the all aforementioned sectors is reflected in the creation of added value, increasing efficiency and meeting the interests of all sides. Introducing performance auditing has special significance in fostering constructs of public-private partnerships.

2. Literature review

The most widely accepted definition of public-private partnerships (PPP) is made by World bank organization. PPPs are typically defined as medium to long term arrangements between the public and private sectors whereby some of the service obligations of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure and/ or public services. PPPs typically do not include service contracts or turnkey construction contracts, which are categorized as public procurement projects, or the privatization of utilities where there is a limited ongoing role for the public sector. (World bank organization, 2015)

Public Private Partnerships (PPPs) are considered as a major approach in delivering public infrastructure projects and public services in recent years. Mainly the projects that require large up-front investments, such as highways, water and sewer services, bridges, seaports and

Airports, hospitals, jails and schools are being provided via PPPs (Engel, Galetovic and Rand, 2007). However, there is no standard, internationally accepted definition of PPP, and different jurisdictions use different nomenclature to describe similar projects. A central characteristic of a PPP contract is that it ‘bundles’ together multiple project phases or functions. The broad definition

mentioned above encompasses a range of contract types, which can be described in different ways. (International Bank for Reconstruction and Development/The World Bank, Asian Development Bank, and Inter-American Development Bank, 2014). The most known concept of PPP Contract Types is described in terms of three broad parameters: first, the type of asset involved; secondly, what functions the private party is responsible for; and thirdly, how the private party is paid. Many PPPs involve new assets - often called 'greenfield' projects. PPPs can also be used to transfer responsibility for upgrading and managing existing assets to a private company - those are called 'brownfield' projects. In either case, a key feature of a PPP is that the assets or services provided are specified in terms of outputs rather than inputs - that is, defining what is required, rather than how it is to be done.

Nonetheless, the functions for which the private party is responsible vary, and can depend on the type of asset and service involved. Typical functions can include the following:

- Design ('engineering' work) - means developing the project from initial concept and output requirements to construction - ready design specifications;
- Build or Rehabilitate - when PPPs are used for new infrastructure assets, they typically require the private party to construct the asset and install all equipment. Where PPPs involve existing assets, the private party may be responsible for rehabilitating or extending the asset;
- Finance - when a PPP includes building or rehabilitating the asset, the private party is typically also required to finance all or part of the necessary capital expenditure.

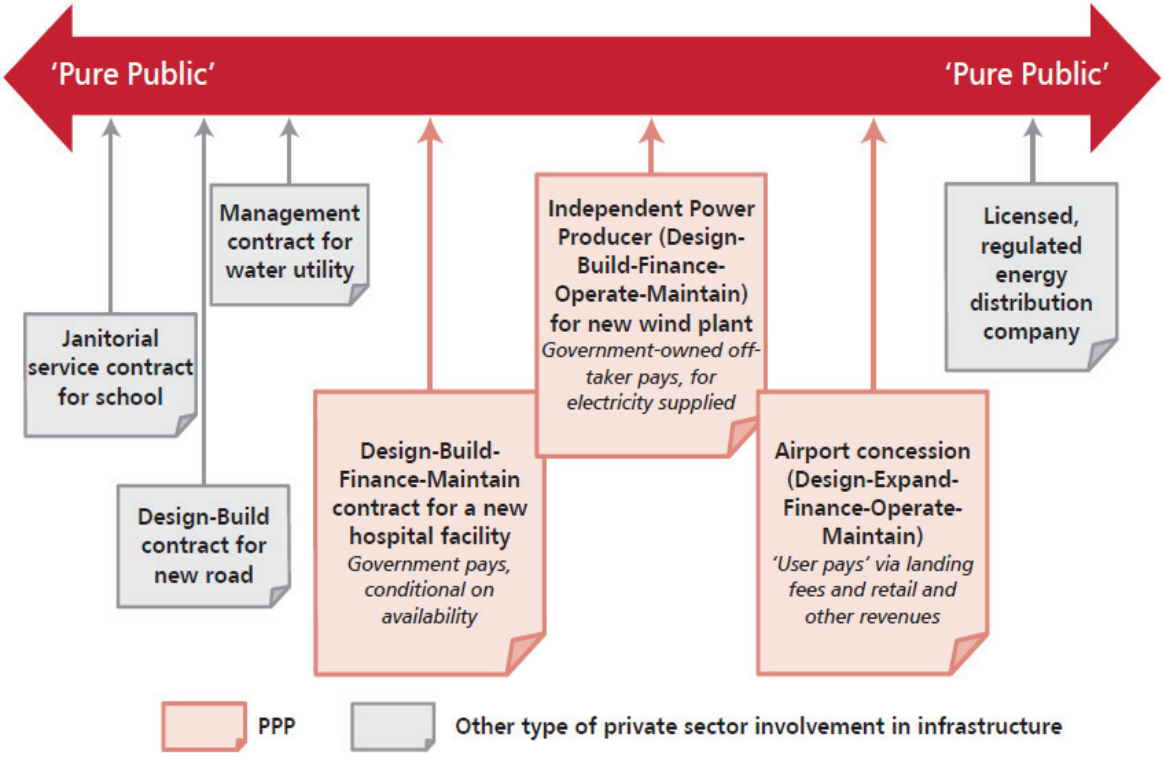


Figure 1. Examples of PPP Contract Types
Source: PPP Reference Guide Version 02. (2014). International Bank for Reconstruction and Development/The World Bank, Asian Development Bank and Inter-American Development Bank

According to De Clerck, Demeulemeester and Herroelen (2012), several attempts have been made to define a PPP (e.g. Wettenhall, 2010, Hodge and Greve, 2007, Van Ham and Koppenjan, 2001), but no consensus has been established. That might be due to the wide landscape of features that a PPP contract can adopt. As stated by Yang and Yang (2010), several contract types are possible: build-own-operate-transfer, joint ventures, sale-and-lease-back, design-build-maintain, et

cetera. Besides, legal requirements may provoke different interpretations of the concept. Ahadzi and Bowles (2004) identified that the contract negotiation phase is the critical stage in the PPP process, often causing delays and overruns of the advisory and bidding costs of approximately 25% to 200%. In total, 85 per cent of the PPP projects run over time because of inefficiencies in the contracting procedure (Ahadzi and Bowles, 2001). Several attempts have been initiated to analyze the different aspects of the tendering process. Hodge and Greve (2007) describe PPPs as a mega credit card for governments. PPP contracting is most popular in the United Kingdom and Australia, but also South-America, Europe and Asia are getting more involved in PPP contracts.

In the international-development field the term PPP is used when referring to joint government, aid agency and private-sector initiatives to combat diseases such as AIDS and malaria, introduce improvements in farming methods, or promote economic development generally. Most of these can be described as 'policy-based' or 'programme-based' PPPs. Although some urban-renewal PPPs are also project-specific, they do not involve the same long-term relationship. PPPs as defined here have the following key elements (Yescombe, 2007):

- A long-term contract (a 'PPP Contract') between a public-sector party and a private sector party;
- For the design, construction, financing and operation of public infrastructure (the 'Facility') by the private-sector party;
- With payments over the life of the PPP Contract to the private-sector party for the use of the Facility, made either by the public-sector party or by the general public as users of the Facility; and
- With the Facility remaining in public-sector ownership, or reverting to public-sector ownership at the end of the PPP Contract.

3. The Role of Public Finance in PPPs

The exclusive use of private finance is not a defining characteristic of a PPP - governments can also finance PPP projects, either in whole or in part. Reducing the amount of capital investment needed from the private party reduces the extent of risk transfer - weakening private sector incentives to create value for money, and making it easier for the private party to walk away if things go wrong. Nonetheless, there are several reasons why governments may choose to provide finance for PPP projects. These include: (International Bank for Reconstruction and Development/The World Bank, Asian Development Bank, and Inter-American Development Bank, 2014):

- Avoiding excessive risk premiums - the government may consider the risk premium charged by the private sector for the project to be excessive, in relation to the actual project risks. This can be a difficult call to make, since financial markets are usually better at assessing risk than governments, but can apply particularly for new projects or markets, or during financial market disruptions
- Mitigating government risk - where project revenues depend on regular payments from government, this creates a risk for the private party, which will be reflected in the project cost. Where reliability of government payments may be in doubt, providing subsidies or payments upfront in the form of loan or grant finance, rather than on-going payments, could improve the bankability and lower the cost of the project
- Improving availability or reducing cost of finance - particularly when capital markets are underdeveloped, or disrupted, the availability of long-term finance may be limited, and so governments may choose to provide finance at terms that would otherwise be unavailable.

PPP is a common idea and is similar to other new ideas such as governance, subsidiary, institutional design, upgrade, etc, which represent element of modern public administration and good governance (Sedjari, 2004). Public-private partnerships (PPPs) have been justified because they release public funds or save on distortionary taxes. However, the resources saved by a government that does not finance the upfront investment are offset by giving up future revenue flows to the concessionaire. If a PPP can be justified on efficiency grounds, the PPP contract that optimally balances demand risk, user fee distortions and the opportunity cost of public funds has a minimum revenue guarantee and a revenue cap. The optimal contract can be implemented via a competitive auction with reasonable informational requirements. The optimal revenue guarantees, revenue sharing agreements and auction mechanisms are different from those observed in the real world. In particular, the optimal contract duration is shorter in demand states where the revenue cap binds. These results also have implications for budgetary accounting of PPPs, as they show that their fiscal impact resembles that of public provision, rather than privatization. (Engel, Fischer and Galetovic, 2008).

Governments often have access to finance on concessional terms, which they may pass on to lower the cost of infrastructure projects. This may also be part of a broader policy of involving state financing institutions to provide long-term lending for developmental purposes.

There are also several different ways in which governments can contribute to the financing structure of a PPP. Governments may provide loan or grant finance directly to the project company, or provide a government guarantee on a commercial loan. Government-owned development banks or other finance institutions can also be involved - either providing finance to PPPs as part of a broader portfolio, or established specifically to support the PPP program. Finally, governments may simply not transfer the financing function to the PPP project to the private sector, instead retaining on-going responsibility for capital expenditures.

4. The significance of performance audit in fostering constructs of PPPs

SAI (Supreme Audit Institutions) needs to determine its remit in examining a public/private finance and concession contract and plan its audit throughly. It will need access guidelines such as SAI responsibilities, acquiring the necessary skills and involvement of the SAI and planning the Audit. The Auditor-General may conduct any audit he or she considers necessary to determine:(a) whether an authority is achieving its objectives effectively and doing so economically and efficiently and in compilance with all relevant acts; or (b) whether the operations or activities of the whole or any part of the public sector (whether or not those operations or activities are being performed by an authority or authorities) are being performed effectively, economically and efficiently and in compliance with all relevant acts. (English and Guthrie, 2006) The scope of the public audit will include a verification of the PPP arrangement to ensure that the public sector agency has effectively put in place a sound system to oversee the efficiency and competence of the project implementation including construction, quality management, compliance with contractual conditions, and integrity of the provision of the targeted public service strictly in terms of the established norms and contract conditions. (Public Accounting Guidelines, 2009)

- SAI Responsibilities - In nearly all countries the responsibility for auditing the state agencies letting public/private finance and concessions contracts rests with the SAI. Such contracts can also however be awarded by regional or local government. Contracts let by these bodies may or may not fall within the remit of the SAI, depending on the auditing framework in place within a particular country. In any case the SAI needs to be clear who was responsible for what in awarding any contract and what is the SAI's remit for examining the deal. The use of a private company to finance and deliver an asset and then provide associated services means that a lot of the relevant record keeping on the delivery and performance will be held by the private company and not necessarily by the letting

public agency. The SAI must therefore be clear about what access rights it has to a private company associated with a public private project. In the field of public private finance and concessions, it can be particularly important that the state agencies letting such contracts exercise well-informed judgement and discretion. The SAI's responsibilities should not lead to the SAI substituting its own judgement for that of the audited body. On the contrary, it should be the aim of the SAI to encourage audited bodies to exercise their own discretion reasonably and wisely. In doing so, the SAI may well draw on lessons learned from audit examination of other cases in which state agencies have exercised their discretion. (The International Standards of Supreme Audit Institutions, ISSAI 5220)

- Acquiring the necessary skills - The defining characteristic of public/private finance projects and concessions is that private sector entities become intimately involved in the delivery of services commissioned by the state: a private sector approach to a public sector problem. To provide the degree of looked for assurance to parliament and to the public about the value for money of such arrangements the SAI is likely to need a wider range of skills than might normally be deployed in the audit of a purely public sector project. Thus, in addition to the more usual performance audit skills required to review any complex or high-risk assignment and specific expertise relating to the asset and / or service being examined, the SAI may need to recruit staff, or make use of consultants, with specialist skills in the specific areas relating to the use of private finance. In particular, skills and technical knowledge associated with the use of project finance are particular important, as a considerable proportion of public/private projects are set up using project finance structures.
- Involvement of the SAI - The SAI faces a dilemma when reviewing public/private finance and concessions deals as to when to carry out its examination. In many cases the deal envisages that the private sector supplier will provide services over many years, even decades, in the future. Therefore it will only really be possible to make a final assessment of whether or not the deal has achieved value for money at the end of the contract in question. However this is too long a timescale if lessons are to be learned and improvements implemented in subsequent projects - and indeed in the project under examination. The need to demonstrate accountability also requires that such deals be examined sooner rather than later at a point when meaningful conclusions can be arrived at. The SAI should therefore examine public/private finance and concessions deals well before the end of the contract. A good stage for first examining these projects should be soon after the contract has been awarded. Examining the deal soon after contract signature has the merit that the terms of the deal are fixed - prior to this the terms may be constantly changing as they are subject to re-negotiation – and the SAI has the opportunity to pronounce on how well the deal will meet the future requirements of the public authority. In certain circumstances, however, and where this is constitutionally permissible, it may be necessary or desirable for the SAI to examine the deal before the contract is awarded; for example if concerns are being expressed about the probity or likely value for money of the procurement process. Also, some SAIs have a statutory responsibility to examine the financial models (i.e. the public sector comparators) used in justifying a procurement through the public/private finance route prior to signature of any contract. Examining a project at this stage has the advantage that any weaknesses identified by the SAI can be corrected before the contract is signed and so more serious difficulties avoided at a later stage. This may be an appealing option to the SAI where it deems a project poses significant value for money risks and wishes to examine it at each of the most significant stages of procurement and operation. In carrying out an examination before the contract is signed, the SAI will need to manage the risks involved in such an early intervention. For example, the risk that the SAI’s examination could have an adverse impact on the tender process itself as the audited body may divert its scarce resources from negotiating the best deal possible for the public sector to dealing with the SAI examination, or the risk to the

SAI itself that it might face a conflict of interest when commenting at a later date on some aspect of the deal which came about because of advice it gave on an earlier examination. The early review by the SAI of a contract, before or just after its award, does not prevent the SAI from returning to examine it again at a later date. The ongoing management of a public/private finance and concessions contract, once signed, is important in ensuring the long term value for money of the project. The SAI should therefore consider looking at such public/private finance projects during the operational phase. An examination during the early years of such a contract should focus on analysing whether the private sector contractor is delivering the outputs stated in the contract. Any examination once the contract has been running for a number of years should focus on how well the public and private sector parties are working together to ensure that required outputs are being changed to ensure they are aligned with changing business requirements of the public authority.

- Planning the Audit - Without good planning the SAI risks undertaking an audit that is ill-focused and lacking in the breadth and depth of evidence needed to secure a credible report. To form a view on a deal's value for money the SAI will need access to the public sector body letting the contract. However, as public/private finance and concessions projects typically involve a wide range of third parties in addition to the public sector body letting the contract, the SAI will also need to obtain the views of these other parties if it is to reach sound conclusions about the deal. The aim of any examination should be to identify lessons for the future so that better deals are reached and procured efficiently and also so that the ongoing management of such contracts and performance of the contractor(s) are improved. If the SAI is to be effective in this aim, its planning of the audit should include how best any lessons identified should be presented so that they are acted on in future. It is important that the SAI's examination should, so far as legally permissible, take into account all relevant information, including material that may be commercially sensitive or confidential. Even if such material may not be or should not be published in the SAI's eventual report, it may well have an important bearing on the SAI's conclusions.

Conclusion

The increasing need for renovation, replacement, or construction of new infrastructure projects and provision of more and better public services, have led to the adoption of PPPs as an effective tool for the exercise of public policy. The need for public facilities and infrastructural projects in both, industrialized countries and in emerging economies are huge, but the abilities to finance those projects are rather limited. Despite the conflicting opinions for the effectiveness or otherwise of PPPs as a way of financing public infrastructure and services the PPPs gains more and more attention in countries around the World and have contributed substantially to improving public services, and continue to provide government with much needed resources to close the infrastructure gap. The main goal of public-private partnership is more economical and successful construction of facilities, production of goods and increase in quality of public services compared to the the traditional manner.

The scope of the public audit is a verification of the PPP arrangement to ensure that the public sector agency has effectively put in place a sound system to oversee the efficiency and competence of the project implementation. As a Supreme Audit Institutions, SAI's aim should be to identify lessons for the future so that better deals are reached and procured efficiently and also that the ongoing management of such contracts and performance of the contractor(s) are improved. If the SAI is to be effective in this aim, its planning of the audit should include how best any lessons identified should be presented so that they are acted on in future.

Literature

1. De Clerck, Demeulemeester and Herroelen (2012). Review of Business and Economic Literature, Vol. 57, Iss. 03. https://lirias.kuleuven.be/bitstream/123456789/371200/2/02++Public+Private+Partnerships.pdf.
2. Engel, E., Fischer, R. And Galetovic, A. (2008). Public-private partnerships: when and how. http://www.econ.uchile.cl/uploads/publicacion/c9b9ea69d84d4c93714c2d3b2d5982a5ca0a67d7.pdf
3. English, L. and Guthrie, J. (2006). 4th International Conference on Accounting, Auditing and Management in Public Sector Reforms, p. 10.
4. Hodge, G.A., and Greve, C., 2007, Public-Private Partnerships: an international performance review, Public Administration Review 67, 545–558.
5. Public Private Partnership (PPP) in Infrastructure project, Public Accounting Guidelines (2009). Comptroller & Auditor General of India, p. 31.
6. PPP Reference Guide Version 02. (2014). International Bank for Reconstruction and Development/The World Bank, Asian Development Bank and Inter-American Development Bank. http://ppp.worldbank.org/public-private-partnership/library/public private-partnerships-reference-guide-version-20
7. Sedjari, A. (2004). Public−Private Partnerships as a Tool for Modernizing Public Administration . *International Review of Administrative Sciences, V*ol 70(2):291–306
8. The International Standards of Supreme Audit Institutions, ISSAI 5220
9. Yescombe, E.R. (2007). Public-Private Partnerships-Principles of Policy and Finance. Butterworth-Heinemann; 1 edition
10. Yang, J-B. and Yang, C-C. (2010). Evaluating schedule delay causes for private participating public construction works under the Build-Operate-Transfer model, International Journal of Project Management 28, 569–579.

ACCOUNTING INFORMATION SYSTEM - THE FOUNDATION OF MANAGERIAL DECISION MAKING

Проф. др Љубиша Владушић[267]

Проф. др Никола Вукмировић[268]

Доц. др Срђан М. Лалић[269]

Msc Срђан Н. Лалић[270]

Abstract

Of great importance to the management is to identify information system, which should provide a reliable information base for business and financial decision making. The accounting information system has an indispensable and essential function. The paper discusses the role and significance of the accounting information system in making management decisions. The accounting system should be organised so that the accounting information system that collects and processes data from the area of accounting planning, accounting, control and analysis, generate valid, timely and quality information. The aim is to generate the possibility of designing the accounting information system in order to make better management decisions.

***Keywords**: Accounting, information, system, management, management;*

[267] Ekonomski fakultet, Univerzitet Istočno Sarajevo, E-mail: ljubisa.vladusic@ekofis.org
[268] Ekonomski fakultet, Univerzitet u Banjoj Luci, E-mail: nvukmirovic@efbl.org
[269] Fakultet poslovne ekonomije Bijeljina, Univerzitet Istočno Sarajevo, E-mail: srdjan.lalic@fpe.unssa.rs.ba
[270] Fakultet organizacionih nauka Beograd

Introduction

By studying the literature and questioning the practice and enterprise management processes based on accounting data, we confirmed the premise that the accounting information in organizations similar to blood in the body. The importance of accounting information is growing due to the increasing changes in the environment and the growing sensitivity to these organizations. It is inevitable that businesses in today's dynamic and turbulent environment have a chance to successfully operate in the grueling race with competition only if it possesses a well-developed information systems within which they will operate all present business functions. Accounting information system (hereinafter RIS) provides the basis information enterprise system for internal and external reporting of user. What does it mean to be a cornerstone for decision making managers in companies. The purpose of the accounting information system is to accumulate data ie. information that will help a manager, as the main holder of the success and development of enterprises, to uncover significant opportunities (chances) and problems (threats) in the expression of the objectives and implementation of expectations. Accounting information system represents a unique basis for management decision making.

The analysis also interdisciplinary and belongs to the fields of accounting and management. Problem analysis is contained in the question: How to model,, accounting information system? ",,Which types of managerial decisions most affect accounting information system in enterprises of Bosnia and Herzegovina?" ,,What is and what the impact and significance of the accounting information system of the management decision-making in companies of Bosnia and Herzegovina? The aim is to draw attention to the possibility of modeling the accounting information system in order to make better management decisions. In this connection we tested basic research hypothesis: ,, Company in Bosnia and Herzegovina have implemented the accounting information system, which affects making strategic management decisions. "The accounting information system is a permanent part of the daily operations of the company. Each transaction must be marked in order to make financial statements or any kind of unofficial reports that management could use for the purpose of business analysis. Accounting information system as the basis of the information system in the company management or operations, it is possible by using the model of accounting information system adapted to the needs of enterprise management.

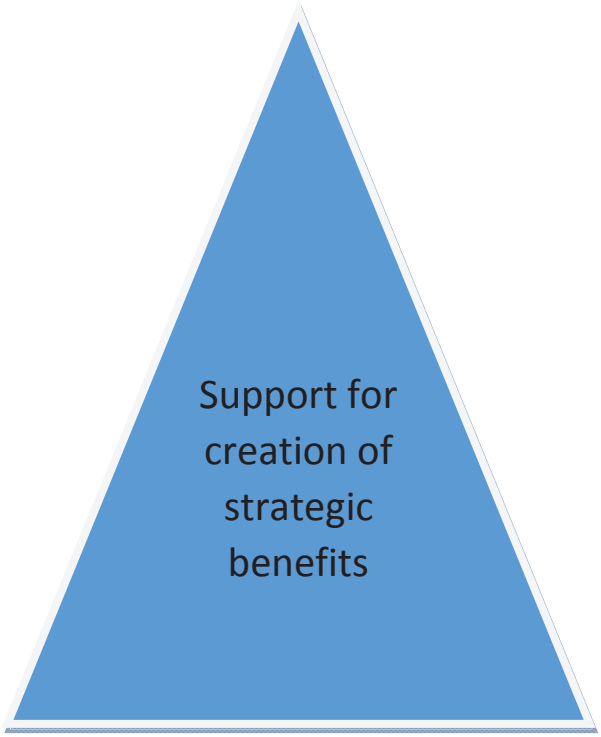
After introductory part, the first part of the problem of research is analyzed from the perspective of research through scientific literature. The second part is titled ,, research methodology and sample analysis, "where it lays the basic methodological concept research, conducted sampling and applied scientific research methods. In the third part of the paper presents the results of research and discussion of the results is carried out. In the final section of the paper I deal with the concluding observations on the basis of scientific research.

1. Review of the scientific literature

Manager as an entrepreneur examines various features to their enterprise focused in a new direction within its area of activity for example. As a corrector manager encourages and implements have corrective actions and measures if the company is faced with problems in business. As an allocator of resources, the manager determines where the company will use its available resources: people, equipment, capital, etc. Manager as negotiator represents company in negotiations with trade unions in solving problems, relations with other companies in such an environment. On the joint venture, as well as other institutions (banks, insurance companies, etc.). The accounting process involves collecting, processing and presenting data. All these activities are now covered by the relevant information and software package that automatically perform recording, transmission, calculation, grouping, analysis, control plans, deviations from plans and the preparation of financial statements. Information managers need to be able to make decisions and monitor their

implementation, learn about its objectives, monitors the status of execution of current tasks and follow the course of the decisions taken.

The other side of the needs of managers for information related to the information on the relevant phenomena, such as monitoring the state of business and production elements, monitoring capacity, inventory, production and others. Also, managers have the necessary information and human relations, and the situation in the organization and environment. One should not forget about what management wants.



Scheme No. 1: The main role of information systems
Source: Preliminary design by author

Management wants to use "fresh" information, from any place, at any time, and without that there is a inconspicuous integration into the existing system. In addition, management wants a unique and integrated data source to automatically generated reports and has a simple tool for decision support. Managers in daily activities make different decisions mainly interdisciplinary character. Depending on the hierarchical level managers decisions they make can be strategic, tactical and operational decisions operativne. Making business decisions represents an important segment of business that takes place every day at all organizational levels and areas of business. In order to facilitate managers to make business decisions today are applied by various IT systems, applications and tools. Accounting information system integrates four sub-systems, and AM2:

- Subsystem that relates to the recording of daily business operations, which is aimed at decision-makers daily routine;
- Subsystem of the general ledger and financial reporting that produces traditional financial reports such as balance sheets, statement of income, statement of cash flows, etc .;
- Subsystem of fixed assets and capital investments (expenditures) that processes transactions related to fixed assets;
- Reporting subsystem management that is focused on different levels of management and preparing the information in a form acceptable to management.

Accounting information system is a support to different levels of management in making different decisions and in their everyday performance.

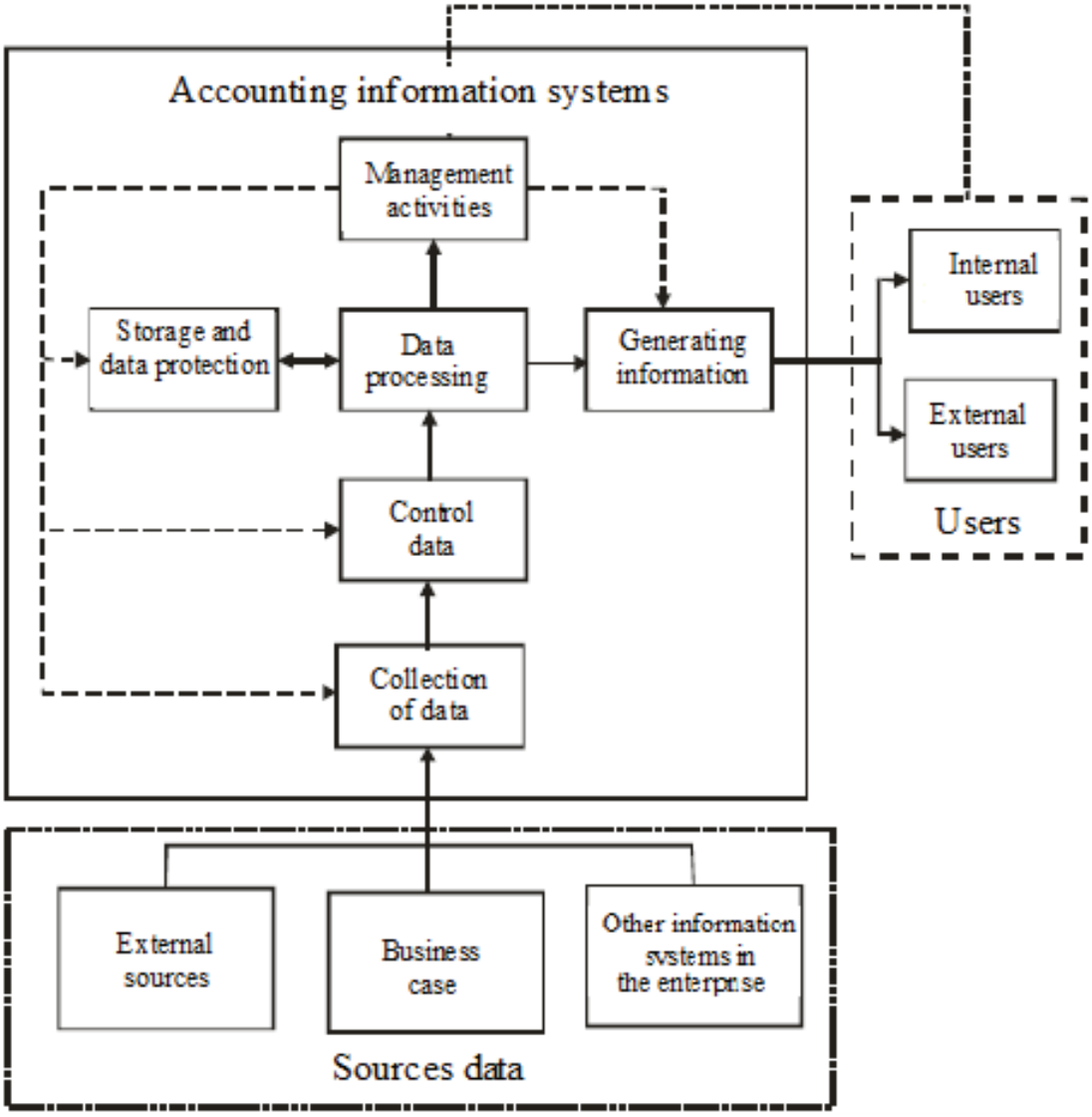


Figure 1. Functioning of accounting information system
Source: Wilkinson, J. "Accounting Information System" New York 1993, p. 241st

Quality and timely decisions based on quality information and the various models that help define the alternatives and choosing the best alternatives or solutions. Therefore, the implementation of information systems and information technology is very important to support business decision making. Generally speaking, information system controls the flow of data and information from their place of generation to managers who will use them. Business decision-making is a complex activity based on a combination of knowledge and skills. The decision can be seen as a choice between several alternatives, and is usually a response to a specific need or a reaction to something.

Strategic management are needed and summarized the necessary information to make decisions. The most common decision of the management levels facing the future and thereby considerably riskier for the final outcome. The management at the tactical level in the company needed more detailed information in relation to strategic management, and usually for a short period. Operational management of the necessary analytical information. At this level, decisions are

made on a daily basis. The manager is dependent on accounting information systems. A number of accounting reports with different informational content are necessary different levels of management. These reports can be presented in different intervals, in different ways and for different phases of management and decision making in the company. Management accounting and control dealing with using information for the purpose to taking decisions and control within the organization. Management information is an area that is traditionally associated with information systems and deals with the "production" of information by using information and communication technologies.

The link between accounting and management information system is in the development of information systems - development of data models, simulation and development of internal control which will be further elaborated in the third chapter of this work. The relationship between management accounting and control and management information is reflected in a number of common elements. They have been held in the very definition of management as a discipline. They depend on the human factor. In contrast to these two areas, accounting information system has traditionally rigid and formal approach and does not depend so much on the human factor. That's why we can say that the approach to different human factor against the technocratic approach - accounting information system is located between the accounting and management control and information management. The aim of the information system in the business system is that all employees have the information they need in business decision-making, planning, execution and control.

Today is an increasing need for efficient information system for managing all the activities of the business system. The information system includes in its operation people (participants), data and information, software, hardware, and procedures. These five basic components make up an information system. The first two components, hardware and software components that are directly related to computer technology and these components provide the necessary equipment and tools for working with data and information. The third component of information systems, which is the subject of labor information system consists of data and information. The fourth component is the people who use information systems or people who are engaged about its development and administration. The fifth component of the procedures that are established rules of conduct and work related to information system.

Given the fact that is information system, accounting information system must have a target system. It should be clear that the target systems will need to be operations in the narrow sense. Other Non-accounting aspects of business operations are covered by other information systems such as human resources information system, management information system, production system, the system of strategic planning, etc. The target system in the accounting information system must have the connection with the accounting aspects of the assets and liabilities of the company, the results of business operations that result in income and the aspects of financial reporting. The information system is different from other types of systems in that its purpose is to record and document the operation of another system. Accounting information system as the basis of the information system in the company management or operations, it is possible by using the model of accounting information system adapted to the needs of management Enterprises1. Depending on the needs of internal (management, administration, etc.) And external (banks, lenders, suppliers, and others.) Users have adequate information on which to make business decisions, your company accounting information system can be conceived so that its function is based on one of the most commonly used Models:

- Model of financial accounting information subsystem,
- Model business information subsystem (drive) accounting,
- Model information subsystem management accounting.

Information system of financial accounting is mandated to collect, process and through financial reports submittes information for the purposes of internal and external users. Therefore, it informs users about the position of the company on a certain date (balance sheet) and profitability (profit and loss) and liquidity (cash flow statement) of the company. This model is primarily focused on generating sets of business information for the purposes of external users, while internal users convenient secondary. External users are primary in relation to internal reasons as these financial statements are intended for accountability (eg, guarantors, lenders, etc.) And the calculation of the tax burden (for example, tax authorities, financial inspection service, etc.).

Maintains special records - records which includes business journal, general ledger and subsidiary ledgers. The software performs automatic connection to financial accounting records and transmits data from one record to another, and vice versa. For example, the subsystem business bookkeeping covers the costs of the five classes of financial accounting and sorts them into appropriate positions within the drive accounting and year-end accounts Class 9 are been closed, and the data on the change in inventories of work in process and finished goods are taken over in financial Accounting. Information subsystem of business accounting is providing customers and an overview of financial results across profit centers and makes the allocation of costs to individual cost centers. This distribution-assignment of costs is done to the possibility of automated calculation of the cost price. The model of information subsystem management accounting represents a peculiar mix of the two previous models. Today, the company management is unthinkable without the control of the information system. The users are, as the name says, the control sector of the business system.

All information covered by this system can be divided into three area:

- information for needs of strategic planning,
- information for needs of the control of management,
- information needs of current operations.

The software captures both planned and actual values which are updated on daily basis and performing the analysis, it is the deviation from the plan works. Plans are monitored on a daily, weekly, monthly, quarterly, semi-annual and annual basis. Another specific characteristic of his is to be entered coefficients of price changes and foreign currency whose calculated automatically all the old and new transaction under the new conditions. This is especially important in how it operates in a volatile market conditions, such as ours.

2. Research Methodology and analysis of samples

In this section we will point out the basic methodological concept research. The research work was carried out at 2015 (period 03.30.2015. - 06.30.2015.) In Bosnia and Herzegovina. The research was conducted by collecting data on the basis of a random sample method. The questionnaire was sent to the address 76 companies. In the research part of the paper used the methods of induction and deduction for scientific reasoning, based on the research results. The survey was conducted by submitting a questionnaire-based electronic mail (e-mail), in person (in written form) and through telephone contact manager / owner of the company. Based on the research we received a response from 21 companies, which makes the research sample.

From the collected data sample, 13 companies responded that information has implemented on accounting system, while 8 companies responded that no, so that they are not filled in the questionnaire. Based on the basic of the research, provided the following information on the structure of the sample by legal form of organization of the company.

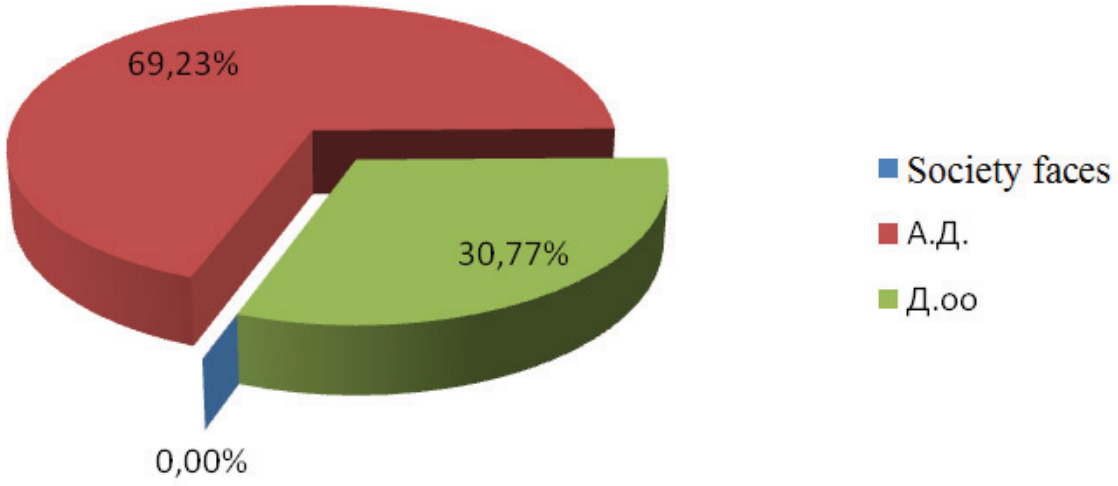


Figure 2. Structure of the sample according to the legal form of organization of enterprises (Source: Calculation based on research by Authors)

Looking at the legal form of organization of the company, the structure of the research sample consisted of a limited liability company (doo) in the amount of 30.77% and joint stock companies (JSC) in the amount of 69.23%.

3. The results of empirical research and discussion

The following discusses the results of research on the application of accounting information system in the function of managerial decision making in companies of Bosnia and Herzegovina. Survey results are analyzed and presented in tabular and graphic representations, which gives the possibility to analyze and comment.

Table 1. Results of the research - ,, Are you using some form of accounting information systems in your business? "

Structure answers	The number of enterprises	Percentage (%)
The number of respondents who uses RIS	13	61.90 %
The number of respondents who are not using RIS	8	38,10 %
Total	21	100,00 %

Source: The study of author

Based on previous data, we can see that companies in Bosnia and Herzegovina still a majority (61.90%) have implemented some form of accounting information system. In continuation of the analysis included companies that have responded positively to a given research question. The

question of whether the accounting information system has affect on the management decision-making in companies of Bosnia and Herzegovina, the following results were obtained.

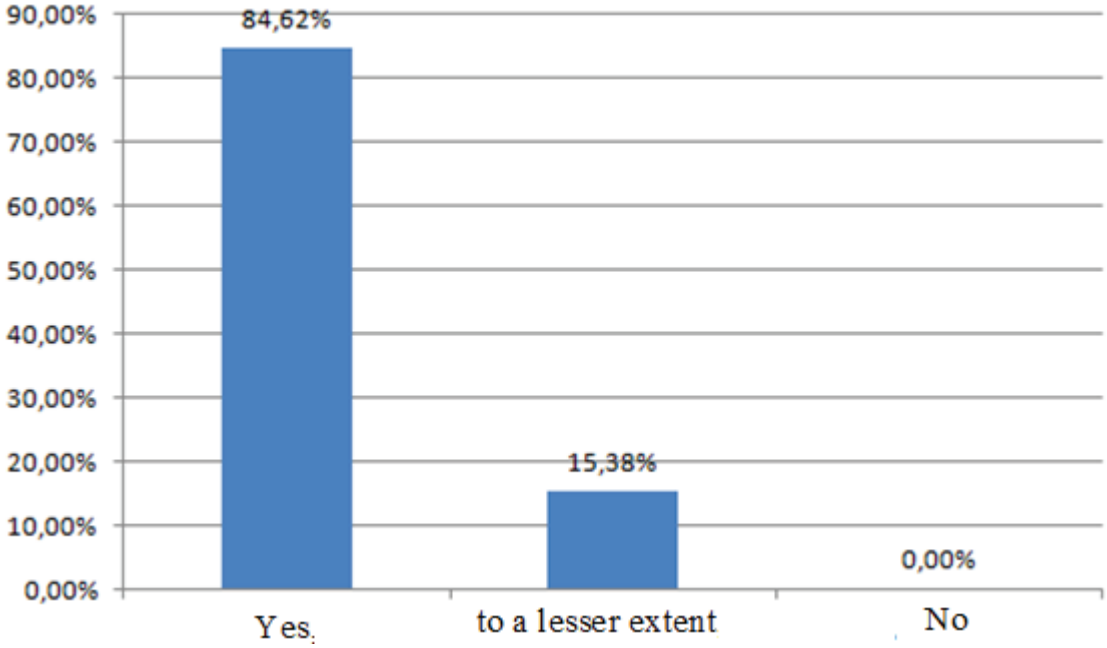


Figure 3. Results of the research - ,,Is accounting information system affect the management decision-making in your company? "
Source: The study of author (Yes, to a lesser extent, No)

Based on previous data, we can see that the companies in Bosnia and Herzegovina RIS have influence (86.62%) in management decision-making. In continuation, we will see the impact of RIS on the adoption of types of managerial decisions, strategic, tactical and operational.

Table 2. What kinds of decisions most affect the use of accounting information system? (You can tick more options).

Type of managerial decisions	Structure response	Frequency response %
Strategic	13	100,00 %
Tactical	8	61,54 %
Operating	6	46,15 %
Total	-	100,00 %

Source: The study of author

Based on the table above, we can see that RIS has the most influence on strategic decisions, then tactical and operational at the end. Below we provide our relations structure by types of decisions combined.

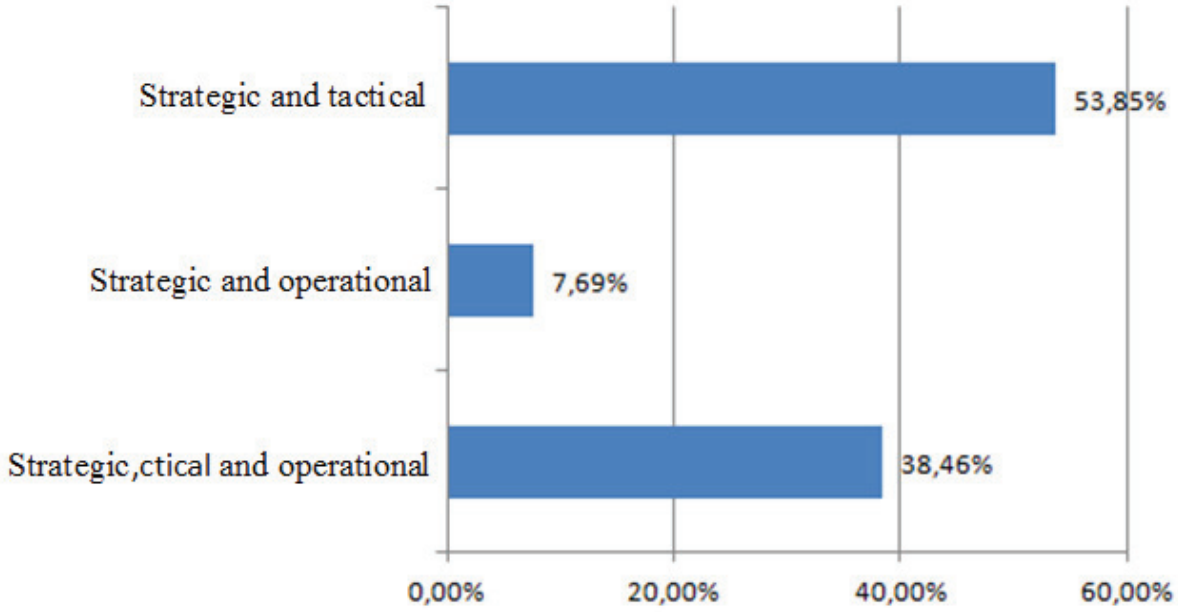


Figure 4. Structure of impact of the kinds of decisions, combined
Source: The study of author (Strategic and tactical, Strategic and operational, Strategic,actical and operational)

Based on the previous chart we can see that in companies Bosnia- Hercegovina accounting information system of the company has the most influence on the adoption of strategic, tactical and operational decisions (38.46%), strategic and operational (7.69%) and the strategic and tactical (53 , 85%).

Conclusion

The development of information technology has come to the level where there is almost no sphere of life in which their elements are not included. Globalization brings with it new challenges and changes both within the company and in management. Management that fails to send the changes and make the appropriate combination of resources in the enterprise and available resources and the factors that come from the environment, leading the company to generate credibility for various interest groups. Generally any information system has the task of creating information that serve as a basis for decisions related to the various aspects of the business. Accounting information system collects and processes the data to create accurate information about past and current business events marked by financial indicators.

Based on the result of research, we found that the companies in Bosnia and Herzegovina RIS influence (86.62%) in management decision-making, as well as all the respondents answered that RIS affects the most strategic decision-making, which we confirmed the basic research Ho hypothesis that enterprises in Bosnia and Herzegovina have implemented the accounting information system, which affects making strategic management decisions. All business functions in all forms of business entities has been improved by implementing the proper equipment and software applications. One of the most comprehensive quantitative sectors, when it comes to the extent of manual business is, of course, the accounting sector. To adequately accounting information system responded to the demands of management, must be organized as an active and creative system. On the way accounting information system meets the demands of management?! Its pro-active solutions, organizer accounting functions need to review, streamline and improve the information management requirements. Thus increasing the informational power of the accounting information system and facilitates the adoption of business and financial management decisions.

References

1. Andric, M., Krsmanović, B., Jakšić, D., (2009), Auditing - Theory and Practice, Subotica, Faculty of Economics
2. Bober, D., (2010), Entrepreneurship, Suborica, Faculty of Economics in Subotica,
3. Vukmirovic, N., (2012), Entrepreneurship in economic theory and practice, Innovative systems and creating a more efficient use of resources, Banja Luka, Faculty of Economics and PPGD "Comesgrafika" doo,
4. Vukmirović, N., (2011), Special accounting, Digitalair- Faculty of Economics Banja Luka, Banja Luka
5. Ivanisević, M., (2008), Business Finance, Belgrade, Faculty of Economics, Belgrade,
6. Mikerević, D., (2009), Financial Management, Banja Luka, Faculty of Economics, Banja Luka
7. Kapic, R., Radovic, R., Piljic, J., (2007), Analysis and understanding of the financial statements, Tuzla, Association - Association of Accountants and Auditors of Tuzla cantons and the "ECON",
8. Kapic, R., Radovic, R., Piljic, J., (2011), Requested financial reporting, Tuzla, "OFF-SET"
9. Lalic, N., (2010), Managerial decision making, Faculty of Education, Bijeljina
10. Wilkinson, J. (1993), Accounting Information System, New York: John Wiley and Sons

SIGNIFICANCE OF ARCHIVAL OPERATIONS FOR THE CONTROL FUNCTION OF AN ENTERPRISE

Prof dr Nenad lalić, Univerzitet Istočno Sarajevo, nenad.lalic@yahoo.com

Saša Klepić dipl.ecc, EYOF 2017 Sarajevo&East Sarajevo, sasa.klepic@gmail.com

Abstract

Paper is still the most important source of information in an enterprise, or public institutions, although the archiving takes a lot of time and costs significant resources. The information in the documents are essential for making business decisions, and therefore the archive work has a significant role in modern business. Archive also serves as the starting point for future researches. Control, as one of the functions of management is of great importance for achieving the goals of the company and can not be achieved without previously performed archiving. The importance of archiving is recognized in the EU where cooperation between European archives dates back to 1990th. Archiving is particularly important when one considers the control function of managers, which certainly wouldn't be possible without the earlier data, overall as earlier mentioned managers wouldn't be able to perform any future planning without basic information provided by the archive.

Key words: *Control function of management, records management system, archival operations, archival policy, electronic archiving of documents*

1. Introduction

Paper is still the most important source of information for enterprises. Over time, the amount of paper documentation increases so physical archiving and subsequent searches become a difficult. This job takes a lot of time and company resources. Most companies every day make and receive a large number of documents in the record which should be then classified, modified, monitored, distributed and archived.

Distribution of such documents is a serious issue and it consumes a lot of time and paper, and at the same time there is no control over the location and importance of the document. If the company has more work units that are physically distant, the availability of documents in remote locations is difficult.

Some researches show that creating documents subtracts 60% of staff time in offices and about 45% of the cost of the total workforce. 85% of the documents are never re-read, 50% are duplicates, and 60% are unnecessary.

However, information contained in the documents are crucial for making business decisions, and their accuracy is crucial.

One of the characteristics of modern business is rapid accumulation of data and documents and the need for information exchange on their associates, business partners and other customers. The documents are data carriers, intended for the storage and transmission of information having an arbitrary shape and content. With them, the organization communicates with its environment, and demonstrates compliance of its operations with the standards, recommendations, regulations and laws.

Documents in the enterprise are usually permanent records of some business event or a description of the state of the process at the moment. The document can be a direct result of the business process: for example, signing a contract, so the *document management system* or *record management system* in fact becomes a system for managing business processes in which. The effort to organize documents and data led to the development of the system for managing documents.

Office operations consist of four phases: formation of documents, records documentation, processing documentation and *archiving of documents*. All these phases of office operations are important for business managers in decision-making but also for the purpose of control function of the managers. Therefore, we will briefly explain at the beginning of the paper control function of management in one system.

Then we will explain *record management system* or *document management system* as a broader term of archival operations in the enterprise. In the section four archival operations in contemporary business are explained in details as well as the archival policy of European Union. In the section six, we briefly explain why electronic archiving is so important in contemporary businesses, and after while we conclude.

2. Control function of management

Management of an enterprise can be divided into three phases: planning, organization and control. These three phases are interrelated and could be seen as subsystems of management system in the company. Planning means directing of all business activities in an enterprise, organization is dedicated to realisation of planned activities while control is performed to analyse results that have been achieved on the basis of planning decisions. It can be said that these three phases serve to achieve previously set goals.

Control function of an enterprise is a broader term of common terms like intern audit or intern control.

In terms of functions that managers have in the organization, control, in addition to planning, organizing, employment, coordination and direction, is the fifth basic function of managers. It is present at all levels of the organization, starting with those that are found in its top management to those who are on the bottom of its control of the pyramid, the so-called. "first managerial line." Control is necessary to monitor deviations from planned expenditures and revenues and timely elimination of the causes of these non-wanted phenomena, and to secure the rational and effective use of available resources.

From an entrepreneurial aspect, control function has a mission to compare planned to realised results in the business process. The main task of the control function is to show on positive and negative disproportion from the plan. It is crucial for the efficient enterprises because without it the company has no way to know how well you perform with regard to its objectives. The control is designed to lead the company towards the attainment of its objectives.

From the point of view of this paper that analyses why archival operations are important for an enterprise, it is obvious that control function could not be performed without record management and archival operations as one of the segment of record management in an enterprise.

3. Records management system as tool for control function of management

Every business must provide recorded evidence of past transactions, relationships, and decisions. This holds true whether the enterprise is a business, a government agency, a non-profit organization, a family, or an individual person. Records contain information that is both a valuable evidentiary resource and an important business asset.

Record management is the part of an office management system which encompasses maintenance of records of organization. It is very important for management for control of records. It is a process of handling and maintaining office records from the time of creation to disposal. The records are systematically preserved or *archived* to be valuable for future use. Record management refers to the activities designed to control the life cycle of a record.

Records management is the professional practice of managing the records of an organization throughout their life cycle, from the time they are created *to their eventual disposal*. This includes identifying, classifying, *storing*, *securing*, *retrieving*, tracking and destroying or permanently preserving records

Records Management System is of vital value to both the private and public sectors. Government agencies at the national and sub-national levels have laws requiring them to keep and preserve records. Every business also exists within an environment that demands recordkeeping. Some industries such as banking, insurance, telecommunications, and accounting are highly regulated by government and the regulations often specify detailed recordkeeping practices. Business records are essential for accountability to investors and shareholders. The legal and health care professions are heavily dependent on their records to conduct business. Tax laws affect businesses, nonprofit organizations, and individual persons in different ways, but all of them necessitate records. In fact,

RM is such a basic element of modern enterprise life that too often it is taken for granted. Records ensure that an enterprise can:

- Conduct its business in an orderly, efficient, and accountable manner
- Deliver services consistently and equitably
- Document its policies, decisions, and outcomes to stakeholders and regulators
- Meet its legislative and regulatory requirements, including audits
- Protect itself in litigation
- Function in a financially and ethically accountable manner
- Protect corporate interests as well as the rights of employees, clients, and other stakeholders
- Provide continuity of operations in an emergency or disaster
- Maintain its corporate and institutional memory

There are four stages of record management: 1) creation of records - It is the first stage of record management. It is the most important stage. In this stage records are either created inside the organization or are received from outside the organization in form of letters or notices; 2) Storage of records - Once records are created they must be retained or protected. This stage is also known as retention of records. It is the preservation of records for future reference. The records are recorded in such a way so that it can be easily located in the required time; 3) Use of records - In this step the stored records in the past are used for planning, organized, deciding, and preparation of accounts and so on; 4) Disposal of records or archiving records - It is the fourth and last stage of record management. Records cannot be stored forever. Outdated records must be destroyed or disposed.

4. Archival operations in an enterprise

What are archives? Archives are collections of documents or records which have been selected for permanent preservation because of their value as evidence or as a source for historical or other research. Records are created by the activities of organisations and people; they serve an active purpose while in current use and some of them are later selected and preserved as part of an archival collection. Archive collections are usually unique, which is why it is so important to take proper care of them. They need to be carefully stored and managed to protect and preserve them for current and future use.

Sometimes these collections are kept in specialist collecting institutions, which are also called archives. Examples of these include national and local archives and record offices. Archives are also kept by other institutions, including museums and libraries. Sometimes archival collections are kept in other locations such as religious organisations, universities, schools, businesses, charities, arts organisations and community groups that often hold their own institutional records.

Why are archives important? Archives have value to nations and regions, organisations, communities and individual people. They provide evidence of activities which occurred in the past. They tell stories, document people and identity, and are valuable sources of information for research. They are our recorded memory and form an important part of our community, cultural, official and unofficial history.

Data archiving is the process of moving data that is no longer actively used to a separate storage device for long term retention. Archive data consists of older data that is still important to the organization and may be needed for future reference, as well as data that must be retained for regulatory compliance. Data archives are indexed and have search capabilities so files and parts of files can be easily located and retrieved.

Data archives are often confused with data backups, which are copies of data. Data backups are used as a data recovery mechanism that can be used to restore data in the event it is corrupted or destroyed. In contrast, data archives protect older information that is not needed for everyday operations but may have to be accessed occasionally. The data archives serve as a way of reducing

primary storage consumption and related costs, rather than acting as a data recovery mechanism. Some data archives treat archive data as read-only to protect it from modification, while other data archiving products treat data as read / write. Data archiving is most suitable for data that must be retained due to operational or regulatory requirements, such as document files, email messages and possibly old database records. Data archives have a different forms. Some systems make use of online data storage, which places archive data onto disk systems where it is readily accessible. Archives are frequently file-based, but object storage is growing in popularity. Other archival systems use offline data storage in which archive data is written to tape or other removable media using data archiving software rather than being kept online. Because tape can be removed, tape-based archives consume far less power than disk systems. This translates to lower archive storage costs.

Archives retain business data that is only accessed infrequently, yet must be kept for a prolonged period of time. Immutability is often a main feature of archival storage system which means once data archived, it cannot be changed or moved until its preservation period has expired.

An archive can eventually contain hundreds of gigabytes or more spread out across hundreds of millions of unique files. Retrieving important data months or years later would be problematic at best, so powerful indexing and searching capabilities are an essential element of many archive platforms.

Enterprise should not underestimate importance of indexing and searching. Retrieving needed files is crucial for compliance audits, e-discovery and litigation support activities. When a demand for discovery is made, a company typically has only weeks to locate and provide the required data. Failure to tender data in a timely fashion can have terrible financial consequences for a business.

5. Archival policy in the European Union

Archiving is not important only to enterprises but also for public institutions and other relevant organizations. The archival policy of the European Commission includes both its internal policies and strategy with regard to archives as well as external co-operation and co-ordination.

Internally, archival policy aims to put in place the legal framework, strategies and procedures that allow the Commission to manage its archives and to open them to the public after thirty years. Externally, the Commission's archival policy aims to promote cooperation on archives with and between the member states as well as with the other EU institutions and international archival bodies. To this end the Commission:

- co-chairs and provides the secretariat of the European Archives Group which is comprised of high level experts from all the Member States and the European institutions;
- maintains close relations with the DLM Forum and is represented on the MoReq Governance Board;
- work together with the other EU institutions in the inter-institutional working group on archives.

Electronic archiving and Document management policy of the European Commission is the so called e-domec.

E-domec aims to ensure the consistency of document management in all Commission departments. Standard and uniform rules serve to make sure that the Commission is able, at any time, to provide information on the matters for which it is accountable.

The legal basis for e-Domec consists of the following two decisions and their implementing rules:

- Commission Decision 2002/47/EC, ESCS, Euroatom of 23.1.2002 amending its Rules of Procedure - Annex : Provisions on document management - OJ L 21 of 24.1.2002, p. 23
- Commission Decision 2004/563/EC, Euroatom of 7.7.2004 amending its Rules of procedures - Annex : Commission's provisions on electronic and digitised documents - OJ L 251 of 27.7.2004, p.9

The Historical Archives of the European Union are opened to the public 30 years after their creation. Each European Union Institution has its own archives service. At the Commission the opening of the historical archives is ensured by its own Historical Archives Services.

The various European Union bodies cooperate wherever possible with the aim of harmonising the treatment of their archives. To this end the Inter Institutional Working Group on Archives meets twice per year. The inter-institutional working group on archives was created in 2004 and meets twice a year. The chair and secretariat rotate between the European Parliament, the Council and the Commission.

The group's mission is:

- to discuss the management of the EU's current, intermediate and historic archives
- to improve cooperation on archives
- to harmonise the treatment of archives wherever possible.

The group also coordinates the deposit of the EU's historical archives at the European University Institute in Florence, which is also represented in the group.

Once they have been opened to the public, the European Union historical archives are deposited at the European University Institute in Florence, where they are made available for consultation.

Most of the European Union Institutions also have provisions that allow the public to request access to documents that are less than 30 years old and have not yet been opened to the public.

In 2009, the Secretariat-General and the Historical Archives Service of the European Commission have jointly prepared an activity report which covers the entire lifecycle of records and archives management at the Commission[271].

5.1. European Archives Group

Cooperation between archives in the EU is not new. Since the early 1990s, cooperation has gradually widened and deepened, based on shared interests and ambitions and the recognition that it should and can be mutually beneficial. The Council recommendation on priority actions to increase cooperation in the field of archives in Europe (2005/835/EC), adopted on 14 November 2005

[271] This Report is available at http://ec.europa.eu/archival-policy/docs/arch/archives_report_2009_en.pdf (accessed, December 2015)

marked a new phase in cooperation. It calls for the creation of a European Archives Group (EAG) to ensure cooperation between archives and to follow-up on five priority measures272.

The EAG, established at the beginning of 2006, comprises experts from all 27 EU Member States as well as from the institutions of the Union. Since its inaugural meeting in April 2006, the EAG has met once every semester to discuss the progress achieved in the implementation of the Council Recommendation and to provide guidance and general orientations for the work undertaken on the five priority actions, i.e.:

1. Preservation and prevention of damage to archives in Europe
2. Reinforcement of European interdisciplinary cooperation on electronic documents and archives
3. Creation and maintenance of an internet portal to the archival heritage of the Union
4. Promotion of best practice with regard to national and European law with regard to archives
5. Measures to prevent theft and facilitate the recovery of stolen documents.

In 2008 the EAG adopted a **Progress Report** on the implementation of the Recommendation which the Commission presented to the Council in the autumn of that year[273]. In this report, the EAG reports not only on the progress achieved but also proposes that Archives Services reflect on their role in a rapidly evolving environment and examine how they can better serve society in general and public administration in particular. The group therefore identifies five challenges for archives in the future, i.e.: archives and the European Directive for re-use of public sector information; the relationship between on-site and on-line access to archives, consequences for administration and society and the changing role of archives in digital record keeping; creation of a European expertise network and finally a plan for a center of excellence for European archivists.

6. Archiving in contemporary business – electronic archiving of documents

Historically, virtually all records were kept in paper format and handled as “back office” filing and clerical functions; Enterprise Record Management was a component of basic management and administration. Today, the vast majority of records are “born electronic” or converted into electronic formats.

Many businesses are using digital document archiving to store securely and easily retrieve documents. Why the conversion from manual to electronic filing? A document archiving solution has numerous benefits that can improve the way a business runs, as well as saving time and money. With a document archiving solution, businesses can scan and upload both typed and hand-written documents onto a computer system. All documents are immediately available via line of business systems, the internet or desktop. Instant access eliminates time wasted in search for information and documents in a variety of electronic and paper formats, allowing staff to focus time on strategic tasks. Many archiving solutions come with optical character recognition technology which scans documents to extract key data elements. This reduces the amount of time consuming and costly manual data entry required.

[272] This Recommendation is available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32005H0835 (accessed, December 2015)

[273] This Report is available at http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2012405%202008%20ADD%201 (accessed, December 2015)

Main key benefits of an electronic document archiving include:

- No requirement to keep paper copies of documents – electronically archiving documents reduces the risk of losing documents, whilst also saving on storage space and money.
- Instant access to corporate information – electronic documents enable instant file access via line of business systems, the internet or desktop.
- Faster response to queries – with quick access to documents, businesses can respond to queries faster, helping to build better relationships with suppliers/customers/employees and third parties.

7. Conclusion

As we discuss in the paper, archival operations as a part of broader record management system are very important for public institutions as well as for businesses in contemporary times. This becomes even more important when it comes to the control function of managers. This function surely could not be performed without record management and archival operations.

In contemporary times, electronic archiving becomes more cost-effective than physical archiving of documents. Beside some of the key benefits of electronic archiving, there are many more benefits which include:

- Gives to users the ability to search and retrieve directly from other business platforms.
- Print or email copy documents on demand – with access to electronic documents can be forwarded electronically or printed as and when needed.
- Audit tracks for every document – all activities relating to document processing, such as view, print, forward, are recorded. Documents cannot be removed from the system by an unauthorized individual or before a legally stipulated amount of time has elapsed. Complete and secure audit trails are provided.
- Supply to suit multiple users' languages within one system – improving usability for global organizations around the world.

In addition to these benefits, businesses create an office with less paper, reduced storage costs and improved business processes.

In Bosnia and Herzegovina which aspires to become a member of the EU, there are laws on the state and entity level that treat the area of archival operation in public and state institutions. But the Law on archival operations in Republic of Srpska as more detailed law than the one on entity level, in its Paragraph 4 states that archival materials "consists of records or documents, regardless of location and time of their origin and form and a record carrier on which they were recorded, which resulted as action and the work of the republic, legislative, executive and judicial organs, the organs of units of local governments, public institutions, companies, associations of citizens, as well as other legal or natural persons, which are of permanent value and importance of science, culture and other social needs and for the legal protection of persons". In the same law there is a section dedicated to the private archives where private documentary material is defined as "material of legal entities and natural persons which is not result of actions of public services and that it is not state-owned".

Thus, archival operations in enterprises or companies are also in interest of this Law as archival materials of these entities could be of value for any public institutions.

According to the law on the state level of Bosnia and Herzegovina, electronic archiving of documents is not mentioned. But the Law of Archival Operations in Republic of Srpska has

provisions that define digital, i.e. electronic archiving of documents and regulates very precisely this kind of archival operations. In paragraph 12 of the Republic of Srpska's law it is defined that "documentary material in electronic form is the material in digital or analog form". Beside the Law there are two Directions on electronic archiving which regulate more precisely how electronic archiving should be performed.

8. Literature

1. Dračić, I. (2012) *Business enterprise and entrepreneurial environment*. Varazdin: Hrvatski zavod za zapošljavanje, Područna služba Varaždin
2. Krstić, B. and Nikolić, M. (2011) Efektivna kontrola u funkciji unapređenja performansi i konkurentnosti preduzeća. U zborniku *Razvijanje konkurentske prednosti preduzeća u Srbiji u uslovima evropskih integracija*, str. 315-331. Niš: Ekonomski fakultet
3. Popović, S., Mijić, R. and Grublješić, Ž. (2014) *Interna kontrola i interna revizija u funkciji menadžmenta*. Škola biznisa Vol. 1/2014, 95 – 107
4. Timothy Sprehe, J. (2002) *Enterprise Records Management: Strategies and Solutions*, Hummingbird Ltd.
5. Živkov. E. (2015) *Razvoj modela internih kontrolnih mehanizamau funkciji upravljanja preduzećem*. Doktorska disertacija, Novi Sad: Fakultet tehničkih nauka
6. Official web site of the EU, http://ec.europa.eu/archival-policy/index_en.htm (accessed, December 2015)

DETERMINANTS OF NON-PERFORMING LOANS IN BANKING SECTOR OF BOSNIA AND HEZEGOVINA

Doc. Dr Milica Lakić[274]

Msc Zorana Agić[275]

Abstract

The purpose of this paper is to objectively explain the ratio of non-performing loans in overall loans, based on macroeconomic dates and dates taken from the financial reports, but on the selected indicators. The aim of this research is identification of factors that influence the ratio of non-performing loans in banking sector of Bosnia and Herzegovina in period 2006 – 2013. The author started the research from the assumption that macroeconomic and specific banking factors influence the quality of the loans. Although the literature on non-performing loans is relatively numerous, this paper represents probably the first empirical research in Bosnia and Herzegovina. Aggregate dates were used, and they were processed by statistical program Statistical Package for Social Sciences (SPSS). The datas show that there is a strong corelation between non-performing loans and different macroeconomic dates (annual ratio increasing of gross domestic product, unemploymment, public debt and consumer price increasing rate).

Key words: *non-performing credits, macroeconomic factors, specific banking factors*

JEL classification: G21, C23

[274] Centralna Banka BiH, mlclakic@gmail.com

[275] Higher School “Banja Luka College”, zorana.agic@gmail.com

1. Introduction

The concept of crisis is of great interest in recent years, and is used to describe a personal or family situation, the business situations or condition of the entire society. This is not surprising given the fact that the financial crisis, which appeared in 2007 in the US, spread like an epidemic and quickly went global. Although the financial crisis has primarily appeared in the United States (US) by the crash of mortgage credit market, quickly, besides financial, it affected the real sector. It did not pass by Bosnia and Herzegovina (BiH), where it moved from the countries of its major economic and trading partners, and came to its peak in 2009.

While the US and Western European countries today emerge from the crisis, in less developed countries such as BiH, it is still an unavoidable issue in most economic - political debate. Although in academic circles there are different theories about the causes, consequences and ways to prevent the negative crisis, they all agree that without synergy of all parts of the financial sector cannot be achieved either sustain financial stability, which is the main goal of every country, and that is undermined by the emergence of the financial crisis. This stands for BiH, which was spared the direct effects of the global financial crisis because it had a happy circumstance that the commercial banks, or those who founded or privatized banks were not exposed to markets where the crisis happened. Although the negative effects of the crisis are not directly and immediately affected the financial sector of BiH, they do exist.

One of the main negative effects of the global financial crisis is the increase in non-performing loans (NPL - acronym from Eng. Non-performing loans) in the assets of banking sector. By mid 2007, the quality of the loan portfolio of banks around the world has been quite stable, but rapidly deteriorated as a result of the problems that the crisis has brought with it. The connection between the credit performance of banks and economic activity is generally known issue. However, it should be noted that the relationship is not uniformly expressed in all countries. The Baltic countries have, during the period of crisis, reported a very high level of NPL (Latvia in 2009 - 18%) in relation to GDP, on the other hand, some countries had a significantly lower amount of NPL (e.g. In Germany they increased for less than 1%, although economic activity fell by almost 5% in 2009*) Roland Beck, Petr Jakubik and Anamaria Piloiu (2013).*

As the impact of the global financial crisis has been uneven in the countries, the recovery from the effects of the crisis is also uneven. In BiH, at the end of 2013, the share of NPL stood at 15.1%, which is a very high level compared to the developed economies of Europe. According to the World Bank, developed economies such as Austria, Belgium, France, Denmark, Norway and Sweden, the year 2013 ended up, respectively, with 2.9%, 3.8%, 4.3%, 4.8%, 1 , 3% and 0.6% non-performing loans. While developed economies in 2013 did not reach the level of 5%, Croatia, Serbia, Slovenia and Macedonia have concluded the year with 15.4%, 20.6%, 18.0% and 10.9% of non-performing loans, which is a direct result of the slow recovery of the economy of these countries. The literature on NPL is relatively extensive, in which the focus is placed on the macroeconomic or specific banking factors affecting the growth of the NPL. This work represents the first empirical research in BiH, in the period from 2006 to 2013. The aim of the study was to identify the impact of these two types of factors (macroeconomic and specific banking) in non-performing loans in BiH. It should be noted that used aggregate data, because data on the level of individual banks or by type of loan, are not available. They were collected from the database of the Central Bank of Bosnia and Herzegovina (CBBH) and the World Bank. The analysis results indicate that the high level of NPLs direct consequence of negative economic movement in the analyzed period.

2. Dates and stylised facts

The aim of the research is to identify factors affecting the troubled loans from two aspects: macroeconomic and specific banking. A study of the literature shows that in similar studies aggregate and split (at the level of individual banks) data can be used, however, *Boudriga, Taktak and Jellouli (2009)* considered that the overall data for the banking sector are more representative and more secure than the individual data for each bank. Taking this into account, and because of the unavailability of certain data for each bank, the study analyzed only summary data. Below is an overview of commonly used definition of NPLs (because it varies in different countries), describes the variable used in the empirical analysis and their expected impact on the dependent variable. Finally, it has given an overview of the development of the banking sector and economic developments in BiH in the analyzed period.

2.1. Data

The author investigated the dependence of the share of NPLs in the total approved (gross) loans. There is currently no internationally agreed definition of NPLs which are applicable in all, or at least most of the countries in the world. However, the most commonly used definitions include the definition given by the International Monetary Fund (IMF), the Basel Committee on Banking Supervision, the Institute of International Finance and International Financial Reporting Standards.

According to the definition of the IMF (IMF, 2005), non-performing loan is a loan in which: the borrower is late in repayment of principal and interest at least 90 days in relation to the term that is defined by the contract on the credit relationship; the interest for delay longer than 90 days refinanced, capitalized or deferred and payable; The borrower is late less than 90 days, but the bank has estimated that its ability to repay its debt and exacerbated the debt service called into question.

Basel Committee on Banking Supervision recommends following the "rules 90 days", i.e., it is considered that there has been non-observance of obligations if the borrower more than 90 days late on payment of its obligations Bank (BCBS, 2006). A little wider definition given by the Institute of International Finance (IIF), which classifies loans in default (which are under observation), substandard (payment of interest and / or principal payment more than 90 days), suspicious (payment of interest and / or principal payment more 180 days) and irreversible (it is considered that the creditor will collect their claims if the borrower is late with the payment of interest and / or principal for more than one year).

Although these definitions are applicable in many countries, there are those which cannot be applied because it is under the NPL loans are those whose repayment is late 31 and over or 61 and more days. However, the number of days past due debtor to repay his liability is not the only criterion for the definition of NPLs that vary between countries. The other criteria of classification of loans falls criterion financial capacity of the borrower and the fact that the legal action against the debtor, the criterion of provisions for risky loans (NPL can be presented in gross and net amount), and criterion guarantees and collateral.

In this analysis, as noted above, used the summary data for the banking sector of BiH, and they are taken from the database of the CBBH, the World Bank and the Agency for Statistics of Bosnia and Herzegovina. The main goal was to, based on the collected data, examine which factors determine the NPL, and to determine whether there is a significant difference between the share of before, during and after the global financial crisis. The research results are more reliable if we analyze the longer period of time. However, the nature of research and a large number of variables have created difficulties in collecting the necessary data, so that the analysis carried out for the period from the beginning of 2006 to the end of 2013.

2.2. Variables and their expected impact on non-performing loans

The literature identifies two groups of factors that influence the NPL. In one group include macroeconomic and financial indicators, while the second group includes specific banking factors. The impact of these factors is different in countries, so that, on the basis of the results obtained in similar studies, general conclusions cannot be drawn about the determinants that affect the NPL. However, on the basis of the results obtained in studies conducted, one can predict the impact dependent on the independent variable, and the analysis will show whether the assumption is right or wrong.

2.2.1. Macroeconomic factors

Most of the above studies dealt with the analysis of macroeconomic factors that influence the rate of NPLs, or the stability of the banking system. These factors include: the growth rate of real GDP, inflation rate, unemployment rate, public debt as% of GDP, the growth rate of the consumer price index of capital markets and interest rates. In this paper we will analyze only some of these factors because there are no data for all of them over time. The analysis will cover the following factors: the growth rate of real GDP (GDP) growth rate of unemployment (UNEPM), public debt as% of GDP (DEBT), the annual growth of consumer prices (ICP) and interest rate (IR). The holder of the monetary authorities in BiH is the CBBH (founded in 1997 by the Law on the Central Bank), which is due to the currency board, limited in terms of the realization of the objectives of monetary policy with a limited number of monetary policy instruments. CBBH cannot qualify the loans, and it does not determine either the discount rate, or affect the level of interest rates in the economy of BiH. Interest rates in BiH are formed freely, and their level is very different for all categories of mobilized resources and categories of placements. Since the formation of interest rates in BiH is not an instrument of monetary - credit policy CBBH (as is the case in most countries), interest rate factor is recognized as a specific banking factors.

The necessary data were collected from various sources. The rate of growth of GDP, the rate of public debt and consumer prices are taken from the database of the CBBH, unemployment data were collected from publications published by the Agency for Statistics of Bosnia and Herzegovina and data on interest rates are taken from the World Bank database. The expected sign of bad loans and bonds of each of these factors is presented in Table 1.

Table 1: Display of macroeconomic factors

SYMBOL	EXPLANATION	EXPECTED SIGN
GDP	Growth rate of real DBP-a	(-)
UNEMP	Unemployment growth rate	(+)
DEBT	Public debt as % BDP	(+)
ICP	Growth rate of consumer prices	(+)

Resource: Author's research

2.2.2. Specific banking factors

Determinants of NPLs should not be limited only to macroeconomic factors, but it is necessary to analyze the specific banking factors, primarily because banks are making great efforts to achieve maximum efficiency and improve risk management, which affects the NPL.

Specific banking factors are the capital adequacy ratio, loan to deposit ratio and performance indicators fall into specific banking factors influencing the NPL. The impact of these factors on the NPL in the banking sector will be analyzed below; a similar study was conducted by *Makri, Tsagkanos and Bellas (2013)* on the example of the euro zone countries. Expected sign connections NPL and specific banking factors are shown in Table 2.

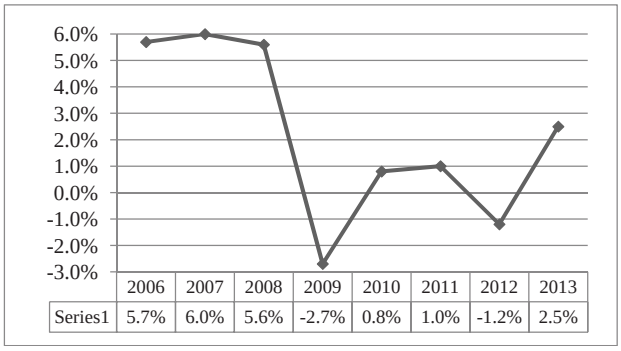
Table 2: Display specific banking factors

SYMBOL	EXPLANATION	EXPECTED SIGN
NPL	Ratio of nonqualitative in overall (bruto) credits	(+)
CAP	Capital adequacy ratio	(-)
LTD	Credit – deposit ratio	(+)
ROA	Return on asset	(-)
ROE	Return on Capital	(-)
IR	Everage annual active interest rate	(+)

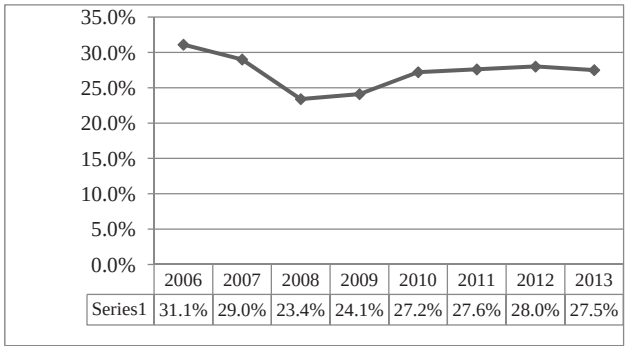
Resource: Author's research

2.3. Stylized facts

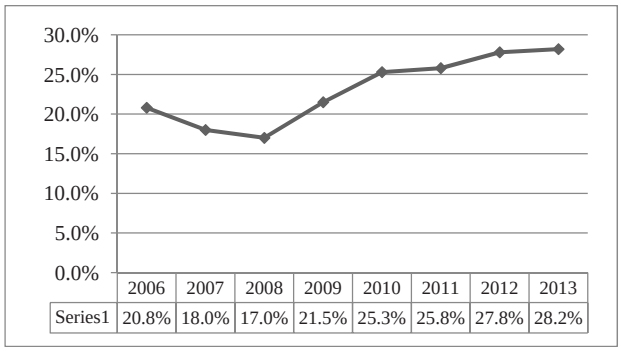
After the financial crisis hit the US market and the market of the European Union and led to near collapse of several European banks, could be expected to be, and BiH have to deal with its consequences. However, the crisis has not left the direct consequences on the financial system of BiH, primarily because it is not invested in high-risk securities for formal constraints and a lack of resources for it. Banks in BiH have successfully resisted the impact of the crisis and are not faced with liquidity problems, and the main reason for this are rigorous requirements in terms of capitalization, intervention CBBH and I mode of commercial banks (commercial banks engaged in traditional jobs and do not enter into speculative transactions).



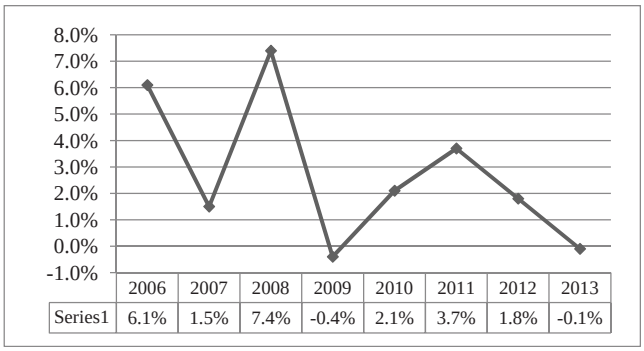
Graph 1: Ratio or real BDP increase
Source: CBBiH



Graph 2: Unemployment ratio
Source:Agency for statistics B i H



Graph 3: Public debt as % BDP-a
Source: CBBiH



Graph 4: Incrise ratio of consumer goods
Source: CBBiH

In 2013, the banking sector has remained stable, and is adequately capitalized. Although there were no significant economic activity, the balance sum of commercial banks increased by 3.96%. The year was marked by growth in deposits (mainly deposits of residents), credit growth and an increase in equity. Credit growth is, to a large extent, a result of the refinancing, which banks existing customers extending repayment periods and provide additional credit facilities. The capital increase is a result of the recapitalization, distribution of profit and loss coverage, and also a positive signal for the economy because it allows banks to loan funds encourage the development of the real sector, investment spending and reduce unemployment in the country. While the year 2013 ended with a negative financial result, the liquidity of the banking sector was satisfactory.

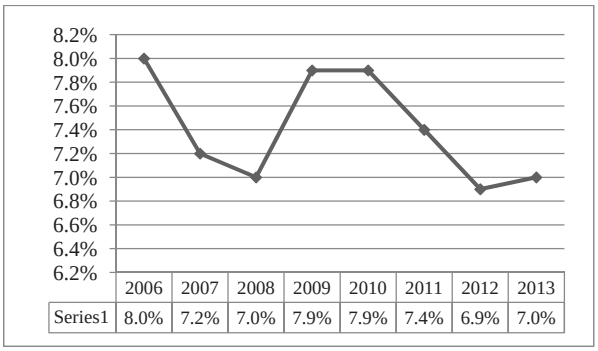
However, the main problem in the banking sector, the growth of NPLs, and at the end of 2013 they accounted for 15.2% of total loans. CBBH, based on macroeconomic assumptions, conducted stress tests that showed that the banking sector is sufficiently stable and resistant to the assumed shocks. Still represents the greatest threat to the growth of NPLs, and the baseline scenario predicts that they will, with the growth rate of real GDP of 2.0%, increase by one percentage point in 2014, while for 2015 provides for the retention of the existing situation, with a growth rate of real GDP of 3.2%. In an extreme scenario, the projected growth of NPL is 5% (the rate of real GDP -3%) in 2014, or 4% in 2015 (the rate of real GDP -1.8%).

2.4 Review of Banking sector in BiH

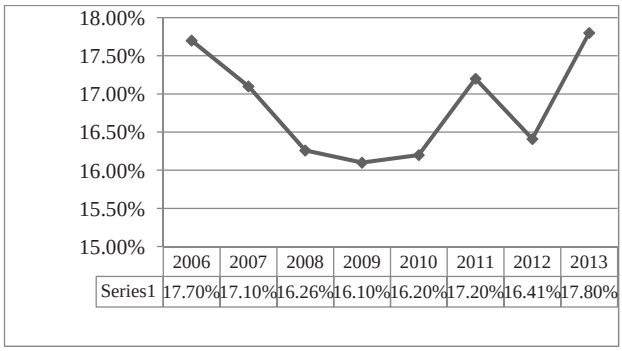
Financial sector in BiH is made of commercial banks, microcredit organizations, leasing societies, investment funds and insurance societies. According to report on financial stability for 2013 (CBBH 2014) the biggest part of financial sector is banking sector (87,4%). Commercial banks function without limitation on the whole territory of BiH, but regulation and supervision of the banks are organized on entity level (Republic of Srpska and Federation BiH). In 2013. 28 licenced banks functioned. Ten of them have its headquarters in Republic of Srpska, and eighteen in Federation BiH.

Regarding ownership structure, 27 banks are private or mostly private ownership (nineteen of them is in major foreign ownership), and one bank is in state ownership. As it was said before, the influence of global financial crisis is obvious in banking sector of BiH. Governor CBBH *(Kemal Kozaric, (2009))* points out that influence of the crisis is limited, primarily because of good capitalization of banks in BiH (indicators that measure ratio of capital and assets is around 16%, and in Western European countries is around 11% or 12%), and also because use traditional banking, and have non-risky sources of financing, and they are not noted on stock market. Financial crisis had negative impact on access on international capital market, which resulted with the fact that getting the credit is more difficult now and interest rates became higher. The change in credit conditions influenced real sector most, which confronted the problem of finding the capital for

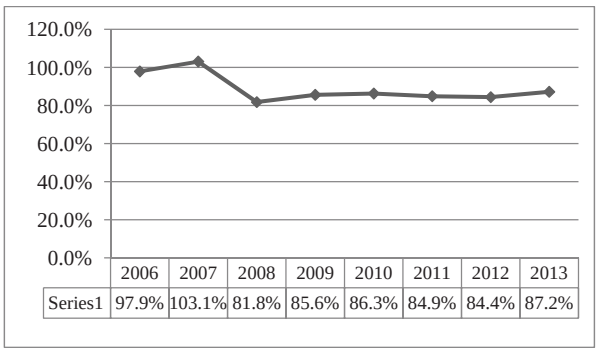
project financing and with service of existing credits that became more expensive because of increase of interest rates. Despite the difficulties, banking sector in BiH started to recover from the crisis, but majority of the banks still try to lower its costs of business in order to get bigger profitability and sustain liquidity on satisfying level.



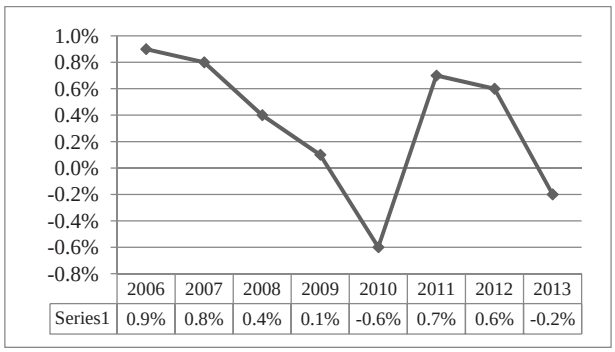
Graph 5: everage active interest rate
Source: World bank



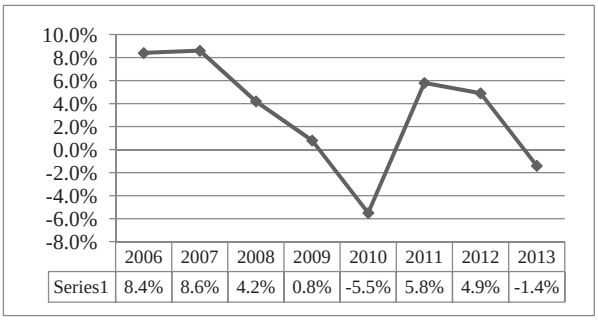
Graph 6: Capital adequacy ratio
Source: CBBiH



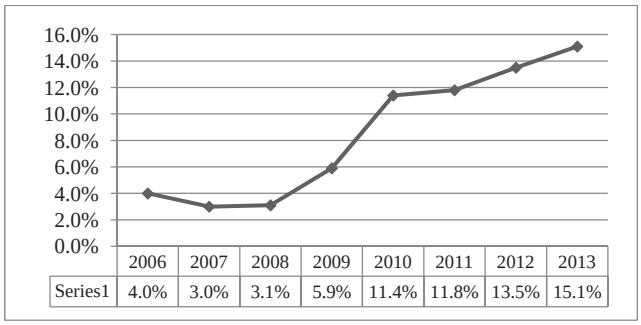
Graph7: Credit and deposit ratio
Source: CBBiH



Graph 8: Return on assets (ROA)
Source: CBBiH



Graph 9: Return on equity (ROE)
Source: CBBiH



Graph 10: Proportion of NPL in total loans
Source: CBBiH

In 2013, the banking sector has remained stable, and is adequately capitalized. Although there were no significant economic activity, the balance sum of commercial banks increased by 3.96%. The year was marked by growth in deposits (mainly deposits of residents), credit growth and an increase in equity. Credit growth is, to a large extent, a result of the refinancing, which banks existing customers extending repayment periods and provide additional credit facilities. The capital increase is a result of the recapitalization, distribution of profit and loss coverage, and also a positive signal for the economy because it allows banks to loan funds encourage the development of the real sector, investment spending and reduce unemployment in the country. While the year 2013 ended with a negative financial result, the liquidity of the banking sector was satisfactory.

However, the main problem in the banking sector, the growth of NPLs, and at the end of 2013 they accounted for 15.2% of total loans. CBBH, based on macroeconomic assumptions, conducted stress tests that showed that the banking sector is sufficiently stable and resistant to the assumed shocks. Still represents the greatest threat to the growth of NPLs, and the baseline scenario predicts that they will, with the growth rate of real GDP of 2.0%, increase by one percentage point in 2014, while for 2015 provides for the retention of the existing situation, with a growth rate of real GDP of 3.2%. In an extreme scenario, the projected growth of NPLs was 5% (the rate of real GDP - 3%) in 2014, or 4% in 2015 (the rate of real GDP -1.8%).

3. Methodology

The paper, by using descriptive statistics determines the impact of macroeconomic and bank-specific factors on the asset quality of the banking sector of BiH for the period from 2006 to 2013. Data were collected from the database of the CBBH and the World Bank, which are taken in aggregate value of the banking sector, on an annual basis. As a dependent variable uses share of NPLs in total loans (NPL), and as the dependent variable is used:

- GDP - the annual growth rate of real GDP,
- Unemployment,
- DEBT - Public debt as% of GDP,
- ICP - annual growth rate of consumer prices,
- R & D - the average interest rate on an annual basis,
- CAP - the capital adequacy ratio,
- LDT - loans to deposits ratio,
- ROA - return on assets,
- ROE - return on equity.

Using descriptive statistics we obtain information about the minimum and maximum values of the analyzed variable, and to which the standard deviation is used for the most accurate and reliable measurement of variability phenomenon, which indicates the deviation from the mean.

Based on statistical data, it is often necessary to investigate whether the movement of one variable affects another phenomenon, i.e. it is necessary to determine their correlation. The best-known measure of the linear correlation is Pearson's coefficient of linear correlation (r). The basic formula for the calculation of the *(Vladimir Turjacanin and Đorđe Čakrlija, 2006):*

$$r_{xy} = \frac{\sum(\frac{X}{\sigma x} + \frac{Y}{\sigma y})}{N-1},$$

Where:

X = X – Mx i Y = Y – My (deviations from the arithmetic mean).

Certain transformations basic formula leads to the following formula to calculate the linear correlation coefficient:

$$r_{xy} = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{[N\sum x^2 - (\sum x)^2][N\sum y^2 - (\sum y)^2]}}$$

The value of the coefficient ranges from -1 to +1, with the sign determines whether this is a positive or negative correlation.

At the outset it is necessary to set up hypotheses. The null hypothesis assumes that the value of the linear correlation coefficient is 0, i.e. that there is a linear relationship *(Ante Rozga, (2009)).*
Ho .....r = 0
H1 .....r ≠ 0.

Testing is performed by calculating the p-value, while if p <0.05 rejected the null hypothesis and accept the alternative, so that the coefficient of correlation is statistically significant. If p> 0.05 accepts the null hypothesis, so that the correlation coefficient is not statistically significant. What is the value of the coefficient is closer to extreme values (-1, +1), it is the degree of linear correlation higher.

4. Empirical results

As noted above, the results of descriptive statistics indicate the minimum and maximum values of variables, and the standard deviation. Results Descriptive statistics are presented in Table 3.

Tabel 3: Results of descriptive statistics for analyzed variables

	N	Minimum	Maximum	Mean	Std. Deviation
NPL	8	3,0	15,1	8,475	4,9896
GDP	8	-2,7	6,0	2,213	3,3233
UNEMP	8	23,4	31,1	27,237	2,4894
DEBT	8	17,0	28,2	23,050	4,3306
ICP	8	-,1	7,4	2,863	2,6774
IR	8	6,9	8,0	7,413	,4581
CAP	8	16,1	17,8	16,850	,6866
LDT	8	81,8	103,1	88,900	7,4627
ROA	8	-,6	,9	,338	,5290
ROE	8	-5,5	8,6	3,225	4,9201
Valid N (list wise)	8				

It can be seen that the minimum level of the share of NPLs to total (gross) loans was 3.0%, and the maximum 15.1%. The growth rate of real GDP had a negative sign -2.7% (minimum value), and the maximum rate was 6.0%. The unemployment rate ranged from 23.4% (minimum value) to 31.1% (maximum value), and the rate of public debt, as a percentage of gross domestic product, ranged from 17% (minimum value) to 28.2% (maximum value). The growth rate of consumer prices, as a measure of inflation, has a minimum value of -1% (deflation), a maximum of 7.4%. Minimum average interest rate was 6.9%, while the maximum was 8.0%. The capital adequacy ratio is not accompanied by a large range between the minimum (16.1%) and maximum (17.8%) value, while the ratio of loans and deposits recorded a large range because the minimum value of 81.8% and 103.1% maximum. Profitability ratios presented coefficients of ROA and ROE, had a minimum value of -0.6% and -5.5%, respectively, and the maximum value was -0.9% and 8.6%, respectively. Table 4 presents the correlation matrix for the dependent (NPL) and the independent variable, and the coefficient of Pearson correlation is determined by the strength of relationship between the variables.

Table 4: Correlation matrix for the analyzed variables

		NPL	GDP	UNEMP	DEBT	ICP	IR	CAP	LDT	ROA	ROE
NPL	Pearson Correlation	1	-,563	,097	,978**	-,529	-,277	,126	-,484	-,463	-,528
	Sig. (2-tailed)		,147	,819	,000	,177	,507	,767	,224	,248	,178
	N	8	8	8	8	8	8	8	8	8	8
GDP	Pearson Correlation	-,563	1	,339	-,606	,585	-,149	,503	,580	,400	,487
	Sig. (2-tailed)	,147		,411	,111	,128	,724	,204	,132	,326	,221
	N	8	8	8	8	8	8	8	8	8	8
UNEMP	Pearson Correlation	,097	,339	1	,217	-,018	,179	,689	,709*	,403	,404
	Sig. (2-tailed)	,819	,411		,606	,966	,672	,059	,049	,322	,321
	N	8	8	8	8	8	8	8	8	8	8
DEBT	Pearson Correlation	,978**	-,606	,217	1	-,539	-,144	,172	-,402	-,389	-,465
	Sig. (2-tailed)	,000	,111	,606		,168	,733	,685	,324	,340	,246
	N	8	8	8	8	8	8	8	8	8	8
ICP	Pearson Correlation	-,529	,585	-,018	-,539	1	,059	,017	-,042	,443	,440
	Sig. (2-tailed)	,177	,128	,966	,168		,890	,969	,922	,272	,276
	N	8	8	8	8	8	8	8	8	8	8
IR	Pearson Correlation	-,277	-,149	,179	-,144	,059	1	-,079	,225	-,167	-,185
	Sig. (2-tailed)	,507	,724	,672	,733	,890		,852	,592	,692	661
	N	8	8	8	8	8	8	8	8	8	8
CAP	Pearson Correlation	,126	,503	,689	,172	,017	-,079	1	,510	,332	,357
	Sig. (2-tailed)	,767	,204	,059	,685	,969	,852		,197	,421	,385
	N	8	8	8	8	8	8	8	8	8	8
LDT	Pearson Correlation	-,484	,580	,709*	-,402	-,042	,225	,510	1	,459	,532
	Sig. (2-tailed)	,224	,132	,049	,324	,922	,592	,197		,252	,175
	N	8	8	8	8	8	8	8	8	8	8
ROA	Pearson Correlation	-,463	,400	,403	-,389	,443	-,167	,332	,459	1	,992**
	Sig. (2-tailed)	,248	,326	,322	,340	,272	,692	,421	,252		,000
	N	8	8	8	8	8	8	8	8	8	8
ROE	Pearson Correlation	-,528	,487	,404	-,465	,440	-,185	,357	,532	,992**	1
	Sig. (2-tailed)	,178	,221	,321	,246	,276	,661	,385	,175	,000	
	N	8	8	8	8	8	8	8	8	8	8

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Based on the results presented in tables can be concluded that public debt does not affect the level of NPLa, while all other independent variable is correlated with the dependent variable (NPL). The growth rate of real GDP impact on the dependent variable, and the coefficient of correlation was -0.563 suggesting a strong and negative relationship, i.e. One can expect more problem loans if a decrease in economic activity. The analysis shows that the unemployment rate greatly affects the NPL, and the correlation coefficient indicates a positive relationship, i.e., an increase (reduction) in the unemployment rate may increase (decrease) NPL. These results are consistent with the results of studies conducted by *Salas and Saurina (2000), Macros, Tsagkanos and Bellas (2009), Louzis, Vouldis and Metaxas (2010) and Nkusu (2011).* The correlation coefficient between the consumer price index and the NPL is -0.529, which indicates a strong negative relationship between these

variables, i.e. can be expected to increase (decrease) in consumer prices lead to a decrease (increase) in problem loans, as opposed to the set preconditions.

Along with the effect of macro-economic variable on the NPL, the assessment has shown that the specific banking factors also affect the troubled loans. According to this assessment, only the correlation coefficient between the NPL and the capital adequacy ratio has a positive sign, and the coefficients which determine the correlation between NPL and lending rates, loans to deposits ratio and bank profitability have negative sign. As for changing the CAP, which determines the risky operations of banks, it shows that the calculated coefficient is statistically significant, and that banks with high capital adequacy ratio involve in risky activities, i.e. the greater the chance that an increase in problem loans. This result is opposite to that of *Saurina Salas (2002) and Espinoza and Prasad (2010)* because their results have a negative sign. *Boudriga, Taktak and Jellouli (2009.)* think that the relationship between risk and problem loans is ambiguous. On the one hand it is claimed that the low level of capital adequacy increase NPL (moral hazard), and on the other hand, banks with high capital adequacy are willing to enter into riskier activities, thus creating a riskier loan portfolios. The analysis shows that the increase (decrease) in lending rates a decrease (increase) in problem loans, as opposed to the expected. The assessment points to the negative correlation between the ratio of loans and deposits, and NPLs, as well as between profitability indicators and problem loans. This result indicates that the deterioration of the profitability indicators may lead to an increase in NPLs, and similar results were obtained by *Boudriga, Taktak and Jellouli (2009a), Macros, Tsagkanos and Bellas (2009) and Louzis, Vouldis and Metaxas (2010)* in their studies focused on individual banks.

5. Conclusion

In this empiric research, specific banking macroeconomic factors affecting the rate of NPLs in the banking sector of BiH have been identified in the period from 2006 to 2013.

Using aggregated data, and applying Pearson's correlation strong correlations between the NPL and the independent variables were found, i.e. various macroeconomic and bank specific factors. According to existing literature, preferred the summary data, they reduce the risk of unrepresentative sample.

The results show that the slowdown in growth or even a decline in GDP was the main driver of increasing the share of NPLs in the analyzed period. This means that the fall's economic activity the main risk to the assets quality of the banking sector. Further, from a macroeconomic point of view, unemployment and consumer price index are factors that affect the NPL, while public debt does not affect the troubled loans. The study found that all analyzed banking specific factors influence the level of NPLs in total loans, and it appears that profitability indicators have a strong impact on them.

The research results show that a large number of factors affecting the increase in NPLs and the need to implement specific measures to rectify this problem or at least softened. Banking sector alone is not able to solve this problem, the advantage of the potential that has the real sector is therefore necessary to take into account. Special attention should be paid to the development and strengthening of national capacities in the areas where BiH has a potential competitive advantage (especially food production), development of power facilities, and a variety of benefits and subsidies to agricultural producers with the aim of developing, strengthening and preserving the agricultural sector. When problem in the economy addressed this way, natural and legal persons will have new sources of funding and will be able to meet their loan obligations, which will lead to a reduction in problem loans.

Considering that this work is the first, the author's knowledge, empirical research in the area of BiH, it can serve as a basis for future research that could involve a larger number of variables and cover more territory.

6. References

1. Beck, Ronald, Petr Jakubik and Anamaria Piloiu. 2013. „Non-performing loans: what matters in addition to the economic cycle?", *ECB Working Paper Series*, No. 1515., avaiable on: http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1515.pdf
2. Boudriga, Abdelkader, Neila B. Taktak and Sana Jellouli. 2009a. „Bank Specific, Business and Institutional environment Determinanst of Nonperforming Loans: Evidence from MENA Countries", the Paper presented on Economic research forum 16th Annual Conference, Cairo.
3. Boudriga, Abdelkader, Neila B. Taktak and Sana Jellouli. 2009b. „Banking Supervision and Nonperforming Loans: A Cross – Country Analysis", *Journal of Financial Economic Policy*, Vol. 1, No. 1: 286 – 318.
4. Espinoza, Raphael and Ananthakrisnan Prasad. 2010. „Nonperforming Loans in the GCC Banking system and their Macroeconomics Effects", *International Monetary Found Working Paper WP/10/224*
5. IMF. 2005. „The Treatment of Non-Performing Loans", Eighteenth Meeting of the IMF Committee on Balance of Payments Statistics.
6. Kozarić, Kemal. 2009. „Uticaj globalne finansijske krize na Bosnu i Hercegovinu sa fokusom na bankarski sistem", *Acta Economica*, Vol. 7, No. 10: 11 – 30.
7. Louzis, Dimitros, Angelos T. Vouldis and Vasilios Metaxas. 2010. „Macroeconomics and Bank-Specific Determinants of Non-Performing Loans of Greece: A Comparative Study of Mortgage, business and Consumer Loan Portfolios", *Bank Of Greece working Paper*, No. 118.
8. Makri, Vasiliki, Athanasios Tsagkanos and Athanasios Bellas. 2014. „Determinants of Non-Performing Loans: The Case of Eurozone", *Panoeconomicus*, Vol. 2: 193 – 206.
9. Nkusu, Mwanza. 2011. „Nonperforming Loans and Macrofinancial Vulnerabilities in Advanced Economies", *International Monetary Foun Working Paper* 11/161.
10. Salas, Vicente and Jesus Saurina. 2002. „Credit risk in two institutional regimes: Spanish commercial and saving banks", *Journal of Financial Services Research,* Vol. 22, No. 3: 203 – 224.
11. Turjačanin, Vladimir and Đorđe Čekrlija. 2006. *Osnovne statističke metode i tehnike u SPSS-u.* Banja Luka: Centar za kulturni i socijalni popravak.

PART EIGHT:

SOCIAL ENTERPRENEURSHIP ENTREPRENURIAL BEHAVIOUR AND ASSOIRATION, GENDER ISSUES

THE ENTREPRENEURIAL PROCESS IN TRANSITION ECONOMIES: ROLE OF INDIVIDUAL SOCIAL CAPITAL

Elvin N. Afandi,

Majid Kermani,

Fuad Mammadov

Abstract

The paper examines the relationship between social capital and entrepreneurial engagement of individuals in 29 post-communist countries. This is the first empirical research that attempts to investigate the influence of three three-dimensional social capital concept – trust, networks and norms – on three stages of entrepreneurial process – preference, trial and success – using such large and comprehensive cross-sectional micro data on transitional countries. In general, we find that all three dimensions of social capital matter in the entrepreneurship context, albeit differently. They become beneficial in different ways and at different stages of entrepreneurial involvement. For example, among trust variables, institutional trust in general, and trust in business-oriented and business-supporting actors in particular, exert significant positive effect on entrepreneurial process. Individuals with formal membership in professional associations are more likely to perceive entrepreneurial opportunities, while some close or strong-tie networks might prevent them from progressing in the entrepreneurship ladder. Finally, individual level civic norms appear to be negatively associated with early-stage entrepreneurship, while the success in becoming an entrepreneur is not found to be bound by people's civic norms.

***Keywords**: entrepreneurial process, social capital, trust, networks, civic norms, transitional economies*

JEL classification code: L26, D8, J24

1. Introduction

An economic origin of term "social capital" could be traced back to Bourdieu who classified economic, human, and social capitals as important elements in "generating science of economy of practices" (Bourdieu, 1986, p. 242). Coleman (1988) further extended Bourdieu's work by identifying three specific dimensions of social capital, namely trust, network, and norms. Following Bourdieu and Coleman, the concept of social capital has become a key element not only in social analyses, but also in political and economic studies. This trend was sped up particularly with the empirical study of Putnam (1993) in the case of Italy. Today, in addition to its direct effect on economic performance such as economic growth, investment, and poverty reduction, various arguments have been put forward regarding the indirect ways or mechanisms in which social capital can be associated with economic phenomena. One of these still evolving indirect mechanisms is the role of social capital in entrepreneurship.

The concept of social capital has crucial implications for advancing our understanding of entrepreneurial process (Liao and Welsch, 2005). However, there are relatively limited number of studies that have properly dealt with the interaction of social capital and entrepreneurship and how the conceptual framework is explored (for a review, see e.g., Westlund et al., 2014; Gedajlovic et al., 2013; Hoang and Antoncic, 2003). Westlund and Bolton (2003), underlined the duality in this interaction, theoretically articulating that, depending on the situation and actors, social capital may positively affect entrepreneurship through its effect on supply costs, innovative ability and revenues, while some facets of social capital such as close-knit families or engagement in small groups may instead restrict the entrepreneurial initiatives.

Although the theory of social capital has made significant inroads into entrepreneurship research, in general, there are, at least three limitations in how these concepts are operationalized and investigated empirically. Firstly, the previous studies focus exclusively on a single-country context and do not provide results that could be generalized in a wider geographical context (e.g., Light and Dana, 2014; Puffer et al., 2009; Meek et al., 2009; Martez and Rodriguez, 2004; Westlund et al., 2014).[276] However, social capital differs largely across countries, and homogeneity does not almost exist (Putnam, 2000; Paxton, 2002; Ostrom, 2005; van Oorschot et al., 2006). Furthermore, heterogeneity across country for the extent of entrepreneurial activities also holds true (Acs et al., 2005; Grilo and Irigoyen, 2006). Thomas and Mueller (2000) suggest that the individual attributes of entrepreneurs differ drastically across countries. Furthermore, Batjargal (2010) argue that social capital might operate differently in different institutional environment. Due to these contrasts in social capital and entrepreneurship endowments, their connection may differ considerably across countries.

Secondly, empirical results are not uncontroversial due to the definition of social capital and, therefore the indicators used to depict it are either very limited or incomplete.[277] However, in order to precisely assess the role of social capital in entrepreneurship, there is a need to conceptualize social capital more broadly (Liao and Welsch, 2005). There is an extensive body of empirical research which links specific facets of social capital, mainly trust (e.g., Fukuyama, 1996; Hohman

[276] Although some studies such as Kwon and Arenius (2010), De Clercq et al. (2010), Stephan and Uhlaner (2010), Estrin et al. (2013) have looked at the social capital and entrepreneurship relationship in the cross-nation context, their construct of social capital is measured at country level and does not capture the role of individual social capital in entrepreneurship.

[277] Liao and Welsch (2005) and Schenkel el al. (2009) were among a few researchers who attempted to operationalize the social capital construct in a broader context, including three measures: structural (networks); relational (trust); and cognitive (shared norms) social capital. However, they found no significant differences in three forms between entrepreneurs and non-entrepreneurs.

and Welter, 2005; Scarbrough et al., 2013), or social networks (e.g., Johannisson and Ramirez-Pasillas, 2001; Thortnton and Flynn, 2003; De Clerqc and Arenius, 2003; Arenius and De Clercq, 2005), to entrepreneurship. According to Stam et al., (2014), in the entrepreneurship literature, there are conflicting perspectives even when it comes to a single facet of social capital, such as networks. This limitation partially stems from the non-existence of generally accepted definition of social capital as well as lack of adequate data to capture the social capital concept more precisely (Westlund and Adam, 2010). Because of these reasons, empirical researches run the risk of revealing vague and incomplete results with regard to the true role of social capital in entrepreneurial process.

Thirdly, previous literature usually does not distinguish between different stages of the entrepreneurial process, and mainly concentrates on the single ladder of entrepreneurial process when they study the role of social capital in entrepreneurship (e.g., Arenius and de Clercq, 2005; Davidson and Honig, 2003; Shane and Cable, 2002; Johannisson and Ramirez-Pasillas, 2001). The notable exceptions are studies conducted by Greve and Salaff (2003), Hite and Hesterley (2001) and Batjargal (2010). Greve and Salaff (2003), for example, look at the impact of network activities of entrepreneurs on three phases of establishing a firm. Hite and Hesterley (2001) explore the relationship between social networks and emergence of entrepreneurship, while Batjargal (2010) estimates the effect of network's structural holes on product portfolio and profit growth of early stage ventures. As a matter of fact, these studies, except Greve and Salaff (2003), have limited implications by overlooking the complete or wider stages of entrepreneurial process. However, discrimination between specific stages of entrepreneurial engagement is very important, and the factors determining them may differ significantly (Grilo and Thurik, 2006). Overlooking or avoiding the different stages of entrepreneurial process may lead to poorer understanding of the distinguished role of social capital and its various dimensions in entrepreneurial activities.

As a consequence of concentration on individual countries, narrower depiction of entrepreneurial process and the absence of unanimously used constructs of social capital, a detailed evaluation of how social capital affects entrepreneurship across various stages and wider range of countries still remains an untapped area in empirical research. Our paper aims to fill these gaps by linking individual level social capital to entrepreneurial process on the following three manners. Firstly, we use high-quality a nationally representative cross-sectional household survey of 35 countries from Europe and Central Asia (involving approximately 1,000 households in each country)[278]. To the best of our knowledge, this is the largest and most comprehensive cross-sectional micro survey being used in a study of the relationship between individual social capital and entrepreneurship. This allows broadening the perspective of previous studies dealing with social capital and entrepreneurship and shifting the focus to a broader geographical perspective displaying a large variety of differences. Secondly, we distinguish between the three stages of an individual's involvement in entrepreneurial process. These engagement levels range from "preference to be self-employed", "trial to establish a business" and "success in becoming a new venture". This distinction enables accurate assessment of where and how in the entrepreneurial process social capital plays a more significant and/or distinguished role. Thirdly, we use a three-dimensional concept of social capital that was originally proposed by Coleman (1988). By doing so, we aim at overcoming the definitional controversy and vagueness, which has haunted previous studies, and demonstrate how these three dimensions of social capital may serve important conduits through which entrepreneurship activities van be boosted.

The rest of the paper proceeds as follows: the next section discusses the concept of social capital and entrepreneurial process, and explains the theoretical framework of the association between two. Section 3 describes the data and empirical methodology. Section 4 presents the

[278] Twenty nine of those countries belong to belong to post-communist countries.

empirical results of the relationship between social capital and entrepreneurial process, while Section 5 concludes with some discussions.

2. Conceptual Framework

2.1. Multi-dimensional social capital

An economic origin of the term "social capital" could be traced back to Bourdieu who defined it as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (Bourdieu 1986, p. 248). For him, social capital is an attribute of an individual, meaning that an individual deliberately devises and implements strategies to invest in social capital in exchange of getting access to various benefits. After Bourdieu (1986), many researchers described social capital as an asset embedded in the relationships of individuals, networks, or societies (Coleman, 1988; Smelser and Swedberg, 1994; Burt, 1997; Nahapiet and Ghoshal 1998). It has been agreed that, as opposed to other types of capitals (e.g. physical, human), social capital cannot build alone and can only persist through cooperation and social association among individuals (Grootaert and Bastelaer, 2002).

Coleman (1988) extended the works of Bourdieu by describing the scope of the social capital concept in a broader context. He identified three specific dimensions of social capital as resources which could be accessed: (i) trust and obligations, (ii) networking and information channels and (iii) civic norms and effective sanctions. Nahapiet and Ghoshal (1998) use this perspective and treat the social capital as a multidimensional concept covering relational facets (e.g., trust and obligations), structural configurations (e.g., networks and relationship), and cognitive aspects (e.g., shared values). According to Knack and Keefer (1997, p.1252), "Trust, cooperative norms, and associations within groups each fall within the elastic definitions that most scholars have applied to the term social capital."

In this study, we incorporate the above-discussed work of Bourdieu and Coleman, by assuming the followings: Firstly, as Bourdieu (1986), we assume that social capital is truly "capital" and has quantifiable returns to individuals. Secondly, as Coleman (1988), we define social capital as a resource which could be utilized by individuals and which has three dimensions, namely, (i) trust, (ii) networks, and (iii) civic norms. Although all three dimensions of social capital can be linked with economic outcomes in similar ways, below we briefly discuss the peculiarities of each dimension and give explanation on how in general they interact with economic development.

Trust is an integral part of social capital and as an elusive concept, it lacks a single consensual definition (Welter, 2012). However, so far the agreed elements of trust, such as reciprocity and trustworthiness appear in most definitions of the concept. Usually, the literature differentiates between the two types of trust, namely confidence on people and trust in institutions surrounding the people (Paxton, 1999). The first type of trust is called "social trust" and refers to the confidence towards both all types of individuals (generalized or collective trust which is not tied to specific known individuals) and a particular fraction of society such as families, friends, neighbors, or other nationalities (particularized trust). Secondly, the so-called "institutional trust" refers to the people's trust in various types of governmental and non-governmental organizations. In general, trust and honesty tend to be the drivers for reducing transaction costs and lowering risk (Höhman and Maliave, 2005; Fukuyama, 1995). Social trust helps to reduce uncertainty and facilitate communication and transaction (Sako, 1992), while trust in institutions makes the individuals to cooperate with various institutions and organizations, and expect reciprocation (Rousseau et al., 1998).

Network is also an important facet of social capital and constitutes civic engagement through meeting friends, family, and colleagues or by being member of social associations such as trade

unions, professional organizations, political parties, or religious organizations. These civic participations provide a solid base for trusting and reciprocal relationship between network members (Saegert et al., 2001). Individuals' involvement in social networks represents the foundations for developing information channels which "constitute a forms of social capital that provides information that facilities action" (Coleman, 1988, p. S104). These associational activities facilitate interaction between actors and obtaining more active networks is playing a more critical role in the development by diffusion of information and increase of cooperation, rather than just having membership in certain associations or less frequent resort to interpersonal networks.

The third dimension of social capital, civic norms, refers to informal mechanisms that may be reflected in participation in social activities and put emphasize on public values and weight less self-interest (Knack and Keefer, 1997). Norms can be defined as habits that help to intuitively distinguish between acceptable and unacceptable behavior (Lyon, 2000). Civic norms are unwritten rules of conduct within a group (Elster, 1989). According to Meek et al. (2009, p. 496) "Norms are maintained by the unwanted emotions (guilt, embarrassment, and shame) an individual feels when not complying with them." Civic norms, or values that are best for all people, help people to reach consensus and act accordingly. If the punishments of violating a social norm are strong enough, few people will want to violate them in a society (Kandori, 1992). As opposed to networks, civic norms do not necessarily seek to maximize the benefits of specific interest group, but look for improving the well-being of a broader society, usually a whole community. According to Woolcock and Narayan (2000, p.16), effective norms can "…encourage responsible citizenship and the collective management of resources".

Taking together all discussions above, in our study, we use the three-dimensional social capital concept and assume that such multidimensional view is useful in a sense that it recognizes and differentiates various forms of social capital. For the trust dimension, we use both social as well as institutional trust aspects, while networking captures a wide range of associational engagement. Our civic norms indicator considers obeying the rules in society. We discuss all the three dimensions in more detail in the proceeding sections of the paper.

2.2. Multi-stage entrepreneurial process

Usually, empirical researches differentiate between engagement and no engagement phases in entrepreneurial process when they analyze individual determinants of entrepreneurship (Blanchflower et al., 2001; Vivarelli, 2004). However, the road for an entrepreneur is long, meaning that prior to becoming an actual entrepreneur, an individual goes through various stages of entrepreneurial process (Van der Zwan et al, 2012). The so-called "dynamic" or "stage" view on entrepreneurship has been emerged recently, which acknowledges that setting up a business is a process that consists of several phases and organizations develop in an evolutionary manner (Reynolds, 1997). For example, Shane and Venkataraman (2000) argue that entrepreneurship consists of the process of discovery of a business opportunity and its exploitation. As Gartner and Carter (2003) suggested, distinguishing between the stages continues even after a business is being established.

As far as we know, Wilken (1979) was one of the first to recognize various phases in the establishment of enterprises. He identified three phases namely, (i) the motivation phase, (ii) the planning phase, and (iii) the set up phase. This dynamic view of studying entrepreneurial process led to a wave of empirical research and the works of the Entrepreneurship Flash Eurobarometer (EFE) and Global Entrepreneurship Monitor (GEM) are inspired by these studies (Reynolds et al., 2005). For example, Grilo and Thurik (2006) introduced the concept of "engagement levels" to discriminate between the various steps of opening a new business in 24 European Union member states using the EFE survey results. They regarded the individual's preferences and intentions to

become an entrepreneur as the first stage of entrepreneurial process and then analyzed the concept of a nascent entrepreneur (individuals that start to take some concrete steps of starting up a new business). For them, the entrepreneurial process ends up with establishing of a new business and becoming an entrepreneur. Van der Zwan et al., (2010) introduce the term "entrepreneurial ladder" and discriminate between five levels of entrepreneurial processes covering the 25 European Union member states and the United States with the conclusion that determinants of entrepreneurship are not necessarily the same across different stages of an entrepreneurial process.

However, empirical studies have been slow to follow the above conceptual developments mainly due to lack of adequate data. In our study, we build on recent theoretical advances in the literature and distinguish between three engagement levels in the entrepreneurial process, from no entrepreneurial involvement to established business ownership and analyze them in the sense that each stage is seen as an increasing degree of involvement in the entrepreneurial process. The first ladder is referring to people's preference of being self-employed, second is considering the people who tried to open a business, and third is covering the individuals who managed to start-up a new business. Some researchers call the individuals who prefer being self employed, our first entrepreneurship indicator, as "latent entrepreneurs", while people who are actually taking steps to start a business, our last two variables, called "nascent entrepreneurs" (e.g., Grilo and Thurik, 2006; Blanchflower et al., 2001; Bonte and Piegeler, 2013). In this study, we will also interchangeably use latent and nascent entrepreneurship vis-a-vis three ladders of entrepreneurial process proposed.

2.3. The interaction of social capital and entrepreneurial process: hypotheses

The linkages between individual level social capital and entrepreneurship have attracted less attention than the analysis of macroeconomic aspects. Furthermore, Audretsch et al., (2006) argue that most of the research on social capital and entrepreneurship interaction does not adequately address the subject. Empirical studies are mainly focused on individual countries, use very limited (unidimensional), sometimes irrelevant indicators of social capital. and finally do not distinguish between the different stages of entrepreneurial process.

A broader definition of social capital allows several possible links to be identified between individual-level social capital and entrepreneurial process, keeping in mind that depending on the form of social capital which is crucial in one stage may be more or less valuable at other stages of the entrepreneurial process. Social capital is a dynamic phenomenon; meaning that depending on the different needs, the various types of social capital can be activated (Granovetter, 1985; Burt, 1992). Greve and Salaff (2003) argue that an individual requires different contacts and resources in different phases of an entrepreneurial process.

In general, as suggested by Greve and Salaff (2003), we expect that an early stage of entrepreneurship will require less social capital, as people may explore the possibilities of establishing their own venture within a small circle of close contacts. In addition, one may expect an individual's preference of being an entrepreneur as an initial stage of entrepreneurial process, is hard to predict and it is more prone to personal entrepreneurial spirit (Blanchflower et al., 2001). In very early stages, individuals may rely less on their economic and social endowments, including the social capital, and overestimate their likelihood of success. People may also prefer self-employment to other alternatives mainly due to either no or just a small satisfaction with their prevailing economic and working conditions.

However, social capital through its all three dimensions may become more relevant and useful when it comes to nascent entrepreneurship, namely entrepreneurial trial and success. Once an individual starts to take concrete actions for establishing a new venture, broader resources and

relations will be needed to succeed. During the entrepreneurial trial phase, people may not necessarily know what kind of personal resources can help them and therefore, they can end up interacting with a larger set of people and institutions they think would benefit them in the future (Greve and Salaff, 2003; Nikolova and Simroth, 2013). However, in the success or advanced stage of entrepreneurial process, individuals may act more selectively and focus or foster those facets of social capital that have proven to bring them real benefit.

Taking into account the above-mentioned views, below we discuss further the conceptual interactions between different dimensions of social capital and entrepreneurial process.

2.3.1. Trust and entrepreneurial process

Attitudes of high trust make it easier for individuals to reach effective decisions and implement personal as well as collective actions. It reduces the transaction cost and mitigates the risk or uncertainties associated with the decision making by substituting for as well as complementing the contracts or regulations (Luhmann, 2000). Trust-based personal relationships enable individuals to gain greater feedback on their business idea and succeed in entrepreneurship activity (Greve, 1995).

High mutual trust, especially in the generalized form, can play a significant role in establishing large-size companies with particularly export-oriented businesses (Fukuyama, 1995). Aldrich (2000) argues that trust-building activities during a business creation are particularly important for innovative entrepreneurs. Meanwhile, particularized trust in narrower context (e.g. trust in friends, trust in family) can be more crucial in establishing and operating a small business in order to retain confidentiality and personal control (Bennet and Robson, 1999).

In contrast to social as well as particularized trusts, which are apparent mainly in non-commercial relations according to Wiliamson (1993) and early-stage entrepreneurship as per Welter (2012), institutional trust can make the individuals deal more confidently with them to become a successful entrepreneur. Doh and Zolnik (2011) found that even negative correlation between generalized trust and self-employment, while trust in institutions had a positive and significant sign. According to Raiser (1999), trust in various institutions and organizations is essential for the efficient operation of a market economy. Institutional trust appears to play a more important role during periods of venture creation and business growth (Höhmann and Welter, 2005). Westlund and Adam (2010) argue that it is not the general trust that has an impact on economic performance, but trust in business sphere of society. Thus, low trust in certain institutions such as banks, investors, etc., may lead to an individual's certain irrational or passive relationships with those institutions, which can end up with lower economic performance and entrepreneurship. Nevertheless, institutional trust and social trust are not mutually exclusive and the former in its turn requires the latter to be developed and sustained (Welter and Smallbone, 2006).

Based on these arguments, we propose the following hypotheses:

Hypothesis 1 - In general, in contrast to social trust, institutional trust will be a more significant predictor of entrepreneurial process.

Hypothesis 2 - Institutional trust will be more positively related to later stage entrepreneurship (nascent entrepreneurship), while early-stage entrepreneurship will be negatively affected by institutional trust.

Hypothesis 3 – Trust in not all types of institutions, but confidence mainly towards business-oriented and-supporting organizations will be positively related to nascent entrepreneurship.

2.3.2. Networks and entrepreneurial process

So far, most related research on the interaction between social capital and entrepreneurship has focused on the importance of social networks for business creation and growth (Hoang and Antoncic, 2003). It has been unanimously agreed that an individual's participation in social networks and associations increases the availability and accessibility of information and reduces its costs. The information that relates to good or evolving business opportunities, sources of financing, or successfully registering new business venture can play a critical role in venture gestation. Having access to more accurate information can also result in better business performance and profit margin of already existing entrepreneurs (Fafchamps and Minten, 1999). Burt (1992) argues that information benefits stemming from social networks and relations occur in three forms: access, timing, and referrals. Greve and Salaff (2003) mention that social networks have three useful properties for entrepreneurs. These are size (e.g., enlarging their networks), position (e.g., positioning themselves within a network) and relationship structure (e.g., interacting with people through many types of relations). However, it may require time and efforts for people to fully benefit from these peculiarities of social networks.

Network and entrepreneurship relations can vary in nature at different stages of business development (Elfring and Hulsink, 2007). Greve and Salaff (2003) have also discriminated between more than two engagement levels of entrepreneurship when explaining the role of social networks in entrepreneurship. They claim that social networks are not fixed and depending on the actors and circumstances, and that each entrepreneurship phase may require a particular combination of social resources. People can activate different types of social networks through bringing close and distant networks to their business depending on the entrepreneurial needs. According to Butler and Hansen (1991), during the pre-start-up stage, individuals rely largely on strong ties with close networks, while in the later phases, the networks become more business-oriented. Batjargal (2003) and Jack (2005) have also found that strong and close ties play more important role at the emergence phase of entrepreneurship.

There were some further attempts to discriminate between the various stages of entrepreneurial activities when their interaction with social networks is investigated. For example, according to Welter (2012), during the early-stage of entrepreneurship, which mainly refers to an individual's preference on occupational choice and identification of business opportunities, entrepreneurs rely mainly on strong personal network ties and contracts. However, most likely, individuals with more distant networks and civil engagement will be in a central position to access necessary sources and utilize valuable information for the later-stage of entrepreneurial process (Liao and Welsch, 2005). The higher the degree of associational membership and business-oriented networks, the more would be the communication channels that are available for use and more likely is the person to enterprise.

Finally, Gedajlovic et al. (2013) argue that social networks do not always lead to positive outcomes with regard to entrepreneurship. Coleman (1988, p. 598) explicitly mentions that, "A given form of social capital that is valuable in facilitating certain actions may be useless or even harmful for others." For example, the costs of developing and managing certain network relationships may result in some narrow-shared values and restrictive obligations, which limit the range of opportunities. Furthermore, certain configurations of social networks may also lead to negative outcomes due to the costs associated with the acquisition and management of relationships. Social relationships may also result in the prevalence of monopolies and corruption (Riordion, 2004).

Based on these logics, we hypothesize the followings:

Hypothesis 4 **-** Strong-ties with close personal networks will play a more significant and positive role in latent entrepreneurship than nascent entrepreneurship.

Hypothesis 5 **-** Distant or weak-tie social networks will play a more significant role in later stages of entrepreneurial process than early stage entrepreneurial process.

Hypothesis 6 **-** Business-oriented and-supporting social networks can particularly be a positive resource for the entire entrepreneurial process.

2.3.3. Civic norms and entrepreneurial process

Although social norms have rarely been empirically tested in the entrepreneurship literature, some scholars tend to agree that without business supportive habits, commensurate cultural capital and commonly- accepted social norms, an abundance of social capital may fail to yield entrepreneurial consequences (e.g., Gedajlovic et al., 2013; Davidsson and Wiklund, 1997). In the case of Sweden, Giannetti and Simonov (2004) found that social norms did have positive impact on entrepreneurial entry. According to Meek et al., (2009, p. 496), "…economic and social perspectives make social norms a valuable variable in bridging our understanding of how entrepreneurial action is impacted by social and economic factors…".

Empirical findings, though limited, on interaction between social norms and entrepreneurship are somehow mixed. Social norms can cover a wide range of virtues and values, which can be positive as well as negative for individual productivity and development. Being bound by social norms and values that exist in society might prevent people from acting opportunistically. As suggested by Knack and Keefer (1997), civic norms tend to improve allocative efficiency from a societal point of view, while they can act as constraints on personal interests. Krueger et al., (2000) found no evidence of relationship between social norms and entrepreneurship intention. Coleman (1990) suggests that social capital may yield environments where individual freedom of action is limited because of the rigid enforcement of social norms.

As far as we know, social norms have not been empirically tested, when it comes to the various stages of entrepreneurial process. However, one may assume that an individual's early intention to become an entrepreneur cannot necessarily be bound by social norms and values. People can behave purely opportunistic and since they do not take any concrete actions which can be noticed by broader public, they may not constraint themselves with social norms and values. For example, not telling a truth, or breaking the existing rules in society may exist as a personal behavior of individuals in a certain community which can affect the early-stage entrepreneurship positively. As Knack and Keefer (1997) suggested, civic norms can effectively constrain opportunism. However, taking some concrete actions and progress over the entrepreneurial ladder require more interaction and cooperation, which in turn can lead to considering social norms as binding. Moreover, according to Fukuyama (1995), the sharing values and norms do not necessarily produce social capital. Therefore, one needs to be careful in defining the social norms, since some of them may be wrong (right) ones, although they may influence the entrepreneurship positively (negatively).

Together, these lead to the following hypotheses:

Hypothesis 7 **-** Civic norms will have a negative association with the early- stage of entrepreneurship (latent entrepreneurship).

Hypothesis 8 **-** Civic norms will not be negatively associated with late-stage entrepreneurship, particularly with the success of becoming an entrepreneur.

3. Data and empirical method

3.1. Data

Our main source of data is the individual-level data file of the second round of Life-in-Transition (henceforth, the LITS) survey which was implemented by the European Bank of Reconstruction and Development (EBRD). The data collection took place in late 2010 (EBRD, 2011). Since a complete description of the LITS's methodology, including a report on observations and a discussion of the experiences with data collection can be found elsewhere (EBRD, 2011), we limit ourselves to the following succinct discussion of the data set.

The main goal of conducting the LITS surveys was to collect directly comparable information about changes in individuals' and households' experiences, behaviors, and attitudes across the 35 European and Central Asian countries over time. Thirty developing countries and five developed Western European countries are covered in the data set. The survey consists of a cross-sectional survey which collected information on a broad range of topics, such as the socio-demographic characteristics of respondents (e.g. age, gender, and educational attainments) and households (e.g. dwelling ownership and rural/urban place of residency). Importantly, the LITS also collected data about personality traits, entrepreneurial process and social capital. The data was collected through face-to-face interviews by trained interviewers.

A consistent sampling methodology was used across all 35 countries. At least 1,000 households were interviewed in each country. The sample is nationally representative. The LITS questionnaire consists of two sections. The first section of the questionnaire is administered to household head who is defined as the most knowledgeable person in the household and is designed to collect information on household composition, housing, expenditures and wealth. The second section of the questionnaire is administered to adult household member in order to gather the individual's personal information, information about her or his economic activities, values and attitudes, as well as life history. The individual member of household was selected for the interview based on the "last birthday" sampling rule.

1.1. Measures

1.1.1. Entrepreneurship variables

We use three outcome variables (preference, trial and success) of entrepreneurial process. The survey firstly asks to respondents whether they prefer self-employment to any other type of formal employment (*preference*). If they do, then the respondents are asked if they had ever tried to start a business (*trial*). If they had, then they are also asked whether they succeeded in establishing a new business (*success*). In our study, the first variable refers to latent entrepreneurship, while the last two questions consider the nascent entrepreneurship activities of respondents. The binary dependent variable measuring latent entrepreneurship takes the value of 1 if an individual prefers being self-employed and the value of 0 otherwise. For the *trial*, binary variable takes the value of 1 if an individual has tried to create a venture and the value of 0 otherwise. Our third dependent variable, *success*, takes the value of 1 if the respondent has succeeded in establishing a new business and the value of 0 otherwise. The same three phases of entrepreneurial process have been already used in a number of studies (e.g. Nikolova et al., 2012; Nikolova and Simroth, 2013; Grilo and Thurik, 2006).

We prone to describe our entrepreneurship variables as opportunity-driven entrepreneurial process indicators. Once the preference of individual is controlled, there is a high chance that this individual will be an opportunity entrepreneur, rather than the necessity entrepreneur (Nikolova et al., 2012). As opposed to necessity entrepreneurship, in which individual pursues self-employment

due to the lack of other employment alternatives, opportunity entrepreneurship tends to be more desirable in terms of supporting growth and efficiency through generating new ideas and boosting knowledge transfers (Acs and Varga, 2005). In this regard,

Table A.1 in the appendix reports the percent of individuals engaged in each part of the entrepreneurial process for each country in the sample.

1.1.2. Social capital variables

We use a wide range of indicators to capture all three dimensions of social capital: trust, network and civic norms. For trust, we distinguish between social trust and institutional trust in accordance with prior literature (e.g., Coleman, 1988; Paxton, 1999). Social trust is operationalized using two types of interpersonal trust, namely particularized trust (trust in certain group of people) and generalized trust (trust in everybody). Personalized trust variables are extracted from the LITS questions: "To what extent do you trust people from the following groups: […] your family and […] friends and acquaintances." The answers to each particularized trust variable range on a scale of 1 to 5 (1-completely distrust and 5-compeltely trust). We create a new particularized trust variable called *trust in family and friends*, by summing up these two. For g*eneralized trust* variable, we used the following question from the LITS: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?" Answers are on a scale of 1 to 5, where 1 means complete distrust and 5 means complete trust.

Institutional trust variables are extracted from the LITS questions: "To what extent do you trust the following institutions? […] the presidency/monarchy, […] the government/cabinet of ministers, […] regional government, […] local government, […] the parliament, […] courts, […] political parties, […] armed forces, […] the police, […] banks and financial system, […] foreign investors, […] non-governmental organizations, […] trade unions, and […] religious institutions". The answers to the institutional trust variables are classified on scale of 1 to 5 (1-completely distrust and 5-completely trust). We further re-classify the detailed institutional trust variables by using dichotomous measures. New variables created include: *trust in government* (sum of trust in the following institutions: the presidency/monarchy, the government/cabinet of ministers, the parliament, courts, armed forces, the police, regional government and local government), and t*rust in civic institutions* (sum of trust in non-governmental institutions, trade unions and religious institutions). *Trust in government* variable takes the minimum value of 8 and maximum value of 40, while t*rust in civic institutions* variable varies between 3 and 15.

For the measurement of the second social capital dimension we follow the previous literature (e.g., Putnam, 2000; Habibov and Afandi, 2011). We first construct a dichotomous variable indicating the frequency of meeting with relatives and friends. The variable gets values from 2 to 10 (higher means more frequent). In order to measure formal associational activities of respondents, measurements of membership in the following forms are used: *professional associations* (equals to 1 if member, otherwise 0); *labor union* (equals to 1 if member, otherwise 0) and *other organizations* (sum of membership in political party; church and religious organizations; sport and recreational organizations and associations; art, music or educational organizations; environment organization; humanitarian or charitable organization; and youth associations). For the membership in other organizations, the dummy variable was constructed which has a value of 0 if the respondent reported no membership in any institutions and a value of 1 if the individual is a member of at least one of these organizations.

For the third dimension of social capital, social norms, we follow the existing social capital literature that considers Coleman's (1988) theory of civic norms (e.g., Knack and Keefer, 1997). Support for social norms was assessed in the LITS by questions based on seven types of behaviors,

which violate norms such as buying a university degree and public officials asking for favor in return for service. The following questions of LITS are used: "How wrong, if at all, do you consider the following behaviors to be? […] speeding to take somebody to the hospital in an emergency, […] paying cash with no receipts to avoid paying VAT or other taxes, […] selling something second hand without mentioning all of its defects, […] making an exaggerated insurance claim, […] a public official asking for a favor or gift in return of services, […] buying a university degree that one has not earned, and […]keeping an accidental overpayment from an employer". Each variable takes a value of 1 or 0 (1-not wrong at all and 0- otherwise). We reversed these scales, so that larger values indicate greater *Social Norms*, and summed values over the seven items to create aggregate social norms variable with a scale between 0 and 7.

At the preliminary stage of our research we experiment with alternative approach for all the three dimensions of social capital. Thus, we attempt to apply a data reduction technique such as principal component analysis (PCA) to reduce a collection of several measures of trust, network and social norms variables to a single underlying factor. In our case, the PCA demonstrates no clear tendency to identify specific underlying distinct components.

Finally, we have also considered the problem of multicollinearity. Theoretically, using a wide range of social capital variables in the same regression models can be problematic due to multicollinearity. We tested multicollinearity in our models by using VIF (variance inflation factor). As a rule of thumb, a variable with VIF greater than 10 should trigger further investigation (Baum, 2006). In our case, no variable has a VIF higher than 10. Lack of multicollinearity is further reinforced by the absence of a high correlation between the various social capital components included in the analysis (See Table A.2 in the appendix).

Detailed description for all three dimensions of social capital can be found in Panel A of Table A.3 in the appendix.

1.1.3. Control variables

To empirically investigate the relationship between the three dimensions of social capital and three phases of entrepreneurial process, we complement our analysis by a set of individual-level variables and country fixed effects. This in general, allows us to minimize the effect of confounding variables.

Since our analysis relies on a cross-sectional data set, it is essential to incorporate a wide range of control variables in order to avoid omitted variable bias. In general, our control variables can be divided into three groups. First, as suggested by several studies (e.g., Demirgüç et al., 2007; Grilo and Thurik, 2008; Ardagna and Lusardi, 2008; Van der Zwan et al., 2012), we include a number of socio-demographic variables such as respondent's gender, age, subjective health and the level of education. Second, as economic control variables we include wealth (car ownership) and access to bank services (e.g., Van der Zwan et al., 2009; Khayesi and George, 2011). Third, we also control for risk tolerance of individuals. As suggested by previous studies (e.g., Van der Zwan et al., 2012; Afandi and Kermani, 2014), general willingness of respondents to take risks may influence their entrepreneurial participation.

In all regressions, we also include country dummies to eliminate or minimize the effect of slowly changing country-level variables (e.g., culture or institutional quality) that could confound the results. By taking into account country-specific fixed effects, we can focus completely on variation within countries.

Overall, the definitions of all outcome and explanatory variables are shown in Table A.3 in the appendix.

1.2. Empirical method

Table A.3 in the appendix presents the descriptive statistics of all explanatory variables, including the social capital variables of interest.

The main objective of our paper is to investigate the role of three-dimensional social capital, defined as trust, networks and norms, in three phases of entrepreneurial process, defined as preference, trial and success. Given that our entrepreneurship variables are binary dependent variables we employ a probit maximum likelihood estimation in the study. Econometrically, our empirical strategy is based on the following equations:

$$Prefer_{i,k} = \alpha_0 + X'\alpha_1 + K'\alpha_2 + S'\alpha_3 + \varepsilon \quad (1)$$

$$Try|Prefer_{i,k} = \beta_0 + X'\beta_1 + K'\beta_2 + S'\beta_3 + \eta \quad (2)$$

$$Succeed|Try|Prefer_{i,k} = \gamma_0 + X'\gamma_1 + K'\gamma_2 + S'\gamma_3 + \delta \quad (3)$$

where $Prefer_{i,k}$ denotes preference of self-employment by respondent i in country k, $Try|Prefer_{i,k}$ is a dummy variable equal to 1 if this individual i from country k has tried to set up a business provided that he or she prefers to be self-employed. $Succeed|Try|Prefer_{i,k}$ is a dummy variable equal to 1 if individual i from country k has succeeded to set up a business, provided that he or she prefers to be self-employed and has tried to open a business. $X'\alpha_1$, $X'\beta_1$ and $X'\gamma_1$ are vectors of individual and households-level independent variables. $K'\alpha_2$, $K'\beta_2$ and $K'\gamma_2$ refer to vectors of country level dummy variables, in order to control country-level heterogeneity. $S'\alpha_3$, $S'\beta_3$ and $S'\gamma_3$ are the vectors including the different social capital variable sets categorized under trust, network and social norms dimensions. Finally, ε, δ and η are disturbance parameters, which are assumed to be normally distributed.

As elaborated above, our dependent variables have a nested nature, which means our *trial* variable is a subset of our first category (*preference*), and *success* variable is a subset of the second category (*trial*). This character of the dependent variables enables us to estimate the determinants of each stage of entrepreneurial process separately, without concern for cross-equation correlation (Wooldridge, 2002).

Given its broader definition, different dimensions of the social capital are mutually reinforcing and sometimes they substitute for each other and sometimes complement (Grootaert and Basterlaer, 2002; Liao and Welsch, 2005; Welter, 2012). As Gedajlovic et al. (2013) suggested, some social resources may precede others and lead to the development of new forms of social capital. For example, networking and social associations usually persist in many relations of mutual trust; high civic norms make it more likely to observe greater confidence among people or social norms and values in society may underlie people's networks. Taking into account the potential interrelationships between various forms of social capital, first we separately estimate the effect of each dimension of social capital on the entrepreneurial process. This strategy is proposed to check the robustness of the coefficients using different definitions of social capital. Additionally, we run regression with all three dimensions of social capital together for a full sample and EU and Non-EU samples only. This allows us to further check the robustness of our coefficients and to see: (i) whether each dimension of social capital has independent significant influence on entrepreneurship, and (ii) whether our results are geographically bound or not. All model specifications include individual-level control variables and country fixed effects.

4. Empirical Results

In the proceeding sections, we present the results of our empirical analyses on the association between social capital dimensions and entrepreneurial process. Probit estimations report marginal effects that are calculated as Average Partial Effects. As discussed in the methodology section of the report, first, we separately estimate the effect of each dimension of social capital – trust, networks and norms – on entrepreneurial process and present the results in Panel A, B, and C respectively. This will allow us to account for the potential interrelationships between various forms of social capital. For the sake of simplicity and preserving space, we only report the variables of interest, namely social capital dimensions. The full results can be provided upon request.

4.1. Effect of trust on entrepreneurial process

Panel A of Table 1 presents the effect of trust variables on entrepreneurial process. The models also include all individual level control variables and country dummies. Probit estimations report marginal effects that are calculated as Average Partial Effects. The most important findings shown in these models revealed that neither generalized nor particularized social trust enter statistically significant in any stage of the entrepreneurial process, while trust in institutions tends to play a statistically significant role in entrepreneurship activities (Hypothesis 1a). Although trust in both government and civic institutions enter negatively in the first stage of entrepreneurial process (Hypothesis 1b), their effects become either positive (trust in government institutions) or non-significant at the final phase of entrepreneurship (success). After controlling for individual characteristics and country dummies, one unit increase in the trust in government institutions increases the likelihood of individual to succeed in establishing a new business by 0.3 percentage point. It is also found that trust in business-oriented institutions, namely trust in banks and trust in foreign investors appear to increase the likelihood of an individual to enterprise (Hypothesis 1c). For example, one unit increase in trust in banks increases the probability of an individual to become an entrepreneur by 2 percentage points.

[Insert Table 1 about here]

4.2. Effect of networks on entrepreneurial process

Panel B of Table 1 presents the effect of network variables on entrepreneurial process. The results show that individuals' networking with close friends and families increases their likelihood to prefer self-employment (Hypothesis 2a). However, during the trial phase, the breadth of social networking became wider and more significant (Hypothesis 2b), while frequency of meeting friends and relatives reduces the chance of individuals to try establish a business. Being a member of trade union always exerts negative and statistically significant association with entrepreneurial process, which might show pro-worker rather than pro-entrepreneur nature of such institutions. Another main finding of the estimations is that, not all types of formal membership in organizations increases the entrepreneurial process, but mainly membership in professional associations that affect individuals positively to progress up the entrepreneurial ladder (Hypothesis 2c). For example, being a member of professional organization increases the chance of an individual to prefer, try, and succeed in an entrepreneurial process by 5.3, 10.9 and 10.3 percentage points respectively. However, being a member of trade union does always negatively and significantly correlate with the entrepreneurial process.

4.3. Effect of civic norms on entrepreneurial process

Panel C of Table 1 presents the effect of civic norms on entrepreneurial process of individuals. As we assumed (Hypothesis 3a), individual civic norms appear to be negatively

correlated with the early stage of entrepreneurial process. For example, one unit increase in the civic norms reduces the likelihood of an individual to prefer and try entrepreneurship by more than 1 percentage point. This effect is statistically significant at least 5% level. However, entrepreneurial success and the level of individual civic norms do not appear negatively correlated (Hypothesis 3b). It seems that after controlling for individual characteristics, country dummy variables, and personal preference and trial, individuals' success to create a new venture is not affected by the degree of civic norms that they perceive.

4.4. Robustness check

In Table 2, we present the regression results, which serve as a part of robustness check of the estimations showed above. First, in Panel A, we present the results of binominal probit models estimated for all three dimensions of social capital – trust, networks and norms – together. This full model will help us to validate the findings of the regressions presented in Table 1. Then, in Panel B and C, we split the total sample into EU and non-EU members respectively, to explore variation between two groups of countries. The specifications are the same in all models, meaning that we include, but not report, individual level control variables and country dummies (for the marginal effects of control variables and country dummies see Table A.4 in the appendix).

[Insert Table 2 about here]

Panel A of Table 2 includes all social capital variables together. The previous results stand, meaning that all three social capital dimensions analyzed continue to be highly consistent, with marginal effects almost unaltered from those reported above. It can thus be claimed that individual level social capital in all its three key dimensions constitutes an important factor for the entrepreneurial process across the sample as a whole.

Panels B and C of Table 2 present the regression results for EU and Non-EU samples respectively. In brief, social capital as a three-dimensional concept has the same connections to individual entrepreneurial process. The results are largely the same as in Panel A for the full sample, meaning that none of the marginal effects changed the sign, while very few changed in terms of significance level.

5. Conclusion and discussion

Despite the surge of empirical studies exploring the role of social capital in entrepreneurship, limited evidence exists with regard to relationship between multi-dimensional social capital and multi-stage entrepreneurial process. In general, we make several compelling contributions in this study, to address the following gaps in literature on social capital and entrepreneurship. First of all, we use high-quality nationally-representative microdata set from 35 countries of Europe and Asia. This allows broadening the perspective of previous studies dealing with social capital and entrepreneurship and shifting the focus to an area of the world displaying a large variety of differences. Secondly, we distinguish between three stages of an individual's involvement in entrepreneurial process: preference, trial and success. This distinction enables accurate assessment of where and how in the entrepreneurial process social capital plays more significant role. Thirdly, we use a three-dimensional concept of social capital (trust, network and social norms) rather than a uni-dimensional construct. By doing so, we aim at overcoming the definitional controversy and oversimplification of the role of social capital which has haunted previous entrepreneurship studies.

In general, our study found that all the three dimensions of the social capital concept established by Coleman (1988) – trust, networks and norms – matter in entrepreneurial process, albeit differently. Our findings reveal non-unitary of social capital and allow arguing that social capital may not be solely unique to different stages of entrepreneurial process. In comparing the relative effects of different dimensions of social capital on entrepreneurial process, we found that an

individual's social networks play the most significant role in various stages of entrepreneurial process, while trust in general and social trust in particular exerts the least significant influence on people's entrepreneurial activities.

As opposed too social trust in both generalized and particularized forms, institutional trust shows significant effect on entrepreneurial process. This finding acknowledges the potential negative consequences of social trust and its dark sides, which have been discussed in prior literature (e.g. Goel and Karri, 2006; Tonoyan et al., 2010; Zahra et al., 2006). However, our finding contradicts Bennet and Robson (1999), Davidson and Honig (2003), and Greve (1995), who argue that particularized social trust in a narrower context is an asset for establishing a new business, while further strengthens the Kwan and Arenius's (2010, p. 317) argument that, "the role of generalized trust plays in perceiving entrepreneurial opportunities is crucial at the national level of analysis." In addition, our study helps to further shed light on the dark sides of the institutional trust in entrepreneurship literature. The empirical results of the study suggest that during the early stage entrepreneurship, trust in some institutions can prevent individuals from enterprising, assuming that in this stage people are taking very limited actions to enterprise and therefore, keep their intention within a smaller circle of close contacts. However, institutional trust starts to play mostly a positive role when it comes to the later stage of entrepreneurship, particularly at the success of establishing a new venture (Doh and Zolnik, 2011). Our finding that not all types of institutional trust, but trust in business-oriented and-supporting actors mainly exert positive role in entrepreneurship success, further helps us to advance our understanding on the role of various institutional trust in entrepreneurship opportunities.

As acknowledged by prior research (e.g., Johannisson and Ramirez-Pasillas, 2001; Thortnton and Flynn, 2003; De Clerqc and Arenius, 2003; Arenius and De Clercq, 2005), we found networks to be the most significant predictor of entrepreneurial activity. In addition, our study reveals two more findings which can potentially further advance our understanding with regard to networking and entrepreneurship. Firstly, we find that there is an inverted U-shaped relationship between the breadth of social network and the stages of entrepreneurial process. This means that at the preference or pre-trial stage, individuals' networks look narrower, while in trial stage they start to interact with a wider set of networks, because they do not know exactly who or which institutions can be beneficial for them in future. Further progress in entrepreneurial process, such as becoming an entrepreneur, requires individuals to somehow concentrate their networks to the limited organizations and avoid redundant resources. Although similar findings in the prior literature support the idea that over time an entrepreneur's social networks evolves from identity-based network dominated by strong-ties or close networks into more weak-ties and distant networks (e.g., Hite and Hesterly, 2001; Johannisson, 2000), they fail to explicitly report an inverted U-shaped pattern of this evolution, particularly mentioning that social networks start to become tighter again at the latest stage of entrepreneurial process.

Secondly, we found a recursive interaction between strong personal ties and wider organizational engagement, indicating that the further an individual goes up the entrepreneurship ladder, the more he/she relies on organizational membership and less on strong ties or personal networks. Although the dominance of strong personal ties at emergence stage of entrepreneurship has been already highlighted by prior research (Bruederl and Preisendorfer, 1998; Batjargal, 2003; Jack, 2005), there are some scholars who argue the opposite (e.g., Greve and Salaff, 2003; Steier and Greenwood, 2000). However, our findings suggest that strong personal ties become even detrimental to later stages, when an individual attempts to take some concrete actions in order to enterprise. This happens due to time scarcity, since exploring entrepreneurial opportunities may require to mobilize larger social networks and look for distant external network resources.

Another interesting finding of our study is related to the role of civic norms in entrepreneurial process. In contrast to previous literature which reveals mixed or inconclusive results (e.g., Fukuyama, 1995; Krueger el al., 2000; Meek et al., 2009; Davidson and Wiklund, 1997), we able to identify the duality of individual civic norms in the various stages of entrepreneurial process. Our study found that individual level civic norms appear to be negatively associated with early stage entrepreneurship, while an individual's success in becoming an entrepreneur is not affected by social values. The reason why individual civic norms play detrimental role in latent entrepreneurship is mainly related to opportunistic behavior, which might be restricted by high social values and norms; however, one needs to be cautious when it comes to the generalization of this association. In fact, civic norms as constraints to narrow self-interest are expected to be reversed and improve the allocative efficiency at the society level (Knack and Keefer, 1997). Therefore, future studies need to be focused on the role of community or national level civic norms in entrepreneurial process in order to reconfirm this hypotheses in the entrepreneurship context.

While one needs to agree not to claim strong causal attributions in cross-sectional data due to the biases such as endogeneity and omitted variables (Bono and McNamara, 2011), the correlations that we found between different dimensions of social capital and entrepreneurial process persists in multiple specifications. Thus, our main findings on association between multi-faced social capital and multi-stage entrepreneurship point to the robustness of the results and allow to assume that this correlation is not spurious. For example, we have compared all our regression models with the complete model, which was run for a full set of social capital variables together and found fairly similar results. Furthermore, a total sample was compared with the different country groupings, namely EU and non-EU samples, to see whether results differ across different cultures and geographies. We found that our results are not geographically bound either, and the conclusions above hold true irrespective of the country context.

Nevertheless, there are a number of important limitations of our study, which can be addressed by future research. First, it has to be borne in mind that the causal relation between social capital and entrepreneurship is not entirely beyond doubt when using individual cross-sectional survey data. Although we employed a number of model specifications for the sake of robustness, we still more prone to associational rather than causal relationships interpretation with regard to our empirical results.

Secondly, we do not control for the types of entrepreneurship due to the data limitations. Depending on the size, sectoral origin and some other entrepreneurial specifications, some types of entrepreneurs can value social capital more than others (e.g., Aldrich, 2000). Moreover, once the preference of individual is controlled, there is a high chance that this individual will be an opportunity entrepreneur, rather than the necessity entrepreneur (Nikolova et al., 2012). As opposed to necessity entrepreneurship, in which an individual pursues self-employment due to the lack of other employment alternatives, opportunity entrepreneurship tends to be more desirable in terms of supporting growth and efficiency through generating new ideas and boosting knowledge transfers (Acs and Varga, 2005). In this regard, future research may explore the same sets of probit models for necessity entrepreneurs in order to reveal differences, if any.

Thirdly, due to data limitations, our results on the non-significant effect of social trust in entrepreneurial process could be subject to the dynamic and habitual nature of the trust phenomenon. Ideally, trust and entrepreneurship studies may require a longitudinal approach which could be measured by the people's past trusting behavior, evolving trust-based relationships and the intensity of trust (e.g., Glaeser et al., 2000; Welter and Smallbone, 2006).

Finally, future entrepreneurship research should also pay attention to study all three dimensions of social capital established by Coleman (1988) at community or country level.

Community or country level social capital can be empirically examined with individual level social capital together, in order to understand how they complement each other in their joint effects on entrepreneurial process. For example, future research can examine whether the role of various dimensions of individual-level social capital in entrepreneurial process is stronger (weaker) in countries with low (high) levels of national social capital etc.

References

1. Acs, Z., Arenius, P., Hay, M., Minniti, M., 2005. Global Entrepreneurship Monitor: 2004 Executive Report. Babson Park, MA: Babson College and London: London Business School.
2. Acs, Z., Varga, A., 2005. Entrepreneurship, agglomeration and technological change. Small Business Economics 24 (3), 323-334.
3. Afandi, E., Kermani, M., 2014. Bridging the gender gap in entrepreneurship: an empirical analysis, William Davidson Institute Working Paper – 1074.
4. Aldrich, H., 2000. Entrepreneurial Strategies in New Organizational Populations. In Swedberg, R. (Eds.), Entrepreneurship: The Social Science View, Oxford University Press, Oxford, UK.
5. Ardagna, S., Lusardi, A., 2008. Explaining international differences in entrepreneurship: the role of individual characteristics and regulatory constraints, NBER Working Paper No. 14012.
6. Arenius, P., Clercq, D., 2005. A network-based approach on opportunity recognition, Small Business Economics 24(3), 249–265.
7. Audretsch, D.B., Keilbach, M.C., Lehman, E.E., 2006. Entrepreneurship and Economic Growth. Oxford University Press, Oxford, UK.
8. Baker, T., Gedajlovic, E., Lubatkin, M., 2005. A framework for comparing entrepreneurship process across nations. Journal of International Business Studies 36 (5), 492-504.
9. Batjargal, B., 2003. Social capital and entrepreneurial performance in Russia: a longitudinal study, Organization Studies, 24 (1), 535-556.
10. Batjargal, B., 2010. The effects of network's structural holes: polycentric institutions, product portfolio, and new venture growth in China and Russia, Strategic Entrepreneurship Journal 4 (2), 146-163.
11. Baum, C., 2006. An Introduction to Modern Econometrics Using Stata. College Station, TX: Stata Press.
12. Bennet, R., Robson, P., 1999. The use of external business advice by SME's in Britain. Entrepreneurship and Regional Development 11 (2), 155-180.
13. Blanchflower, D.G., Oswald, A., Stutzer, A., 2001. Latent entrepreneurship across nations. European Economic Review 45 (4-6), 680-691.
14. Bono, J.E., McNamara, G., 2011. From the Editors: Publishing in AMJ – Part 2: Research Design. Academy of Management Journal, 54 (4), 657-660.
15. Bonte, W., Piegeler, M., 2013. Gender gap in latent and nascent entrepreneurship: driven by competitiveness. Small Business Economics, 41 (1), 961-987.
16. Bourdieu, P. 1986. The Forms of Capital. In Handbook of the Judgment of Taste. Cambridge, MA: Harvard University Press.
17. Bruederl, J., Preisendorfer P., 1998. Network support and the business of newly founded businesses, Small Business Economics 10 (3). 213–225.
18. Burt, R.S., 1992. Structural Holes: The Social Structure of Competition. Harvard University Press, Cambridge, MA.
19. Burt, R.S., 1997. The contingent value of social capital. Administrative Science Quarterly 42 (2), 339–365.

20. Butler, E.,Hansen, S., 1991. Network evolution, entrepreneurial success, and regional development, Entrepreneurship and Regional Development 3 (1), 1-16.
21. Coleman, J., 1988. Social capital in creation of human capital. American Journal of Sociology 94, S95-S120.
22. Coleman, J., 1990. Equality and Achievement in Education. Westview Press, Boulder, CO.
23. Davidson, P., Honig, B., 2003. The role of social capital and human capital among nascent entrepreneurs. Journal of Business Venturing 18 (3), 301-331.
24. Davidson, P., Wiklund, J., 1997. Conceptual and Empirical Challenges in Study of Firm Growth. In Davidson, P., Entrepreneurship and the Growth of Firms, Edward Elgar Publishing, Cheltenham.
25. De Clercq, D., Arenius, P., 2003. Effects of human capital and social capital on entrepreneurial activity, Working Paper Steunpunt OOI.
26. De Clercq, D., Danis, W., Dakhli, M., 2010. The moderating effect of institutional context on the relationship between associational activity and new business activity in emerging economies, International Business Review 19 (1), 85-101.
27. Demirgüç-Kunt, A, Klapper, L., Panos. G., 2007. The origins of self-employment. Working paper, Development Research Group, World Bank, Washington DC.
28. Doh, S., Zolnik, J., 2011. Social capital and entrepreneurship: an exploratory analysis. African Journal of Business Management 58 (12), 4961-4975.
29. Elfring, T., Hulsink, W., 2007. Networking by entrepreneurs: patterns of tie formation in emerging organization, Organization Studies 28 (12), 1849-1872.
30. Elster, J., 1989. Social norms and economic theory. Journal of Economic Perspectives 3 (4), 99–117.
31. Estrin, S., & Mickiewicz, T., 2011. Institutions and female entrepreneurship. Small Business Economics, 37 (4), 397-415.
32. Estrin, S., Mickiewicz, T., Stephan, U., 2013. Entrepreneurship, social capital, and institutions: social and commercial entrepreneurship across nations, Entrepreneurship: Theory and Practice 37 (3), 479-504.
33. European Bank for Reconstruction and Development (EBRD)., 2011. Life in Transition: after Crisis, London, UK.
34. Fafchamps, M., Minten, B., 1999. Social Capital and the Firm: Evidence from Agricultural Trade. Social Capital Initiative Working Paper 17. World Bank, Washington DC.
35. Fukuyama, F., 1995. Trust: The Social Virtues and the Creation of Prosperity. Free Press, NY.
36. Gartner, W.B., Carter, N.M., 2003. Still trying after all these years: Nascent entrepreneur “semi-survivor” bias in the panel study of entrepreneurial dynamics. Paper presented at the Academy of Management Meetings, Seattle, Washington, August 2003.
37. Gedajlovic, E., Honig, B., Moore, B.C., Payne, G.T., Wright, M., 2013. Social capital and entrepreneurship: A schema and research agenda. Entrepreneurship: Theory and Practice 37 (3), 455-478.
38. Giannetti, M., Simonov, A., 2004. On the determinants of entrepreneurial activity: social norms, economic environment and individual characteristics. Swedish Economic Policy Review 11, 269–313.
39. Glaeser, L., Laibson, I., Scheinkman, A., Soutter, L., 2000. Measuring trust. Quarterly Journal of Economics 115 (3), 811-846.
40. Goel, S., and Karri, R., 2006. Entrepreneurs, effectual logic and over-trust, Entrepreneurship: Theory and Practice 30, 477-493.
41. Greve, A., 1995. Networks and entrepreneurship. Scandinavian Journal of Management 11 (1), 1-24.

42. Greve, A. Salaff, W., 2003. Social networks and entrepreneurship. Entrepreneurship: Theory & Practice 28 (1), 1-22.
43. Granovetter, M., 1985. Economic action and social structure: a theory of embeddedness, American Journal of Sociology, 91 (3), 481- 510.
44. Grilo, I., Irigoyen, M., 2006. Entrepreneurship in the EU: to wish and not to be, Small Business Economics 26 (4), 305–318.
45. Grilo, I., Thurik, R., 2006. Entrepreneurial engagement levels in European Union. Scientific Analysis of Entrepreneurship and SMEs (SCALES) Paper N200515.
46. Grilo, I., Thurik, R., 2008. Determinants of entrepreneurial engagement levels in Europe and the US. Industrial and Corporate Change 17 (6), 113-1145.
47. Grootaert, C., Bastelaer, T. (Eds.), 2002. Understanding and Measuring Social Capital: A Multidisciplinary Tool for Practitioners. The World Bank Press, Washington D.C.
48. Habibov, N., Afandi, E., 2011. Self-rated health and social capital in transitional countries: multilevel analysis of comparative surveys in Armenia, Azerbaijan and Georgia, Social Science and Medicine 72 (7), 1193-1204.
49. Hite, J., Hesterley, W., 2001. The evolution of firm networks: from emergence to early growth of the firm, Strategic Management Journal 22 (3), 275-286.
50. Hoang, H., Antoncic, B., 2003. Network-based research in entrepreneurship: a critical review. Journal of Business Venturing 18 (2), 165-187.
51. Höhman, H., Malieva, E., 2005. The Concept of Trust: Some Notes on Definitions, Forms and Sources. In: Höhman, H., Welter F. (Eds.), Trust and Entrepreneurship. Edward Elgar Publishing, Cheltenham.
52. Jack, S.L., 2005. The role, use and activation of strong and weak network ties: A qualitative analysis. Journal of Management Studies 42 (6), 1233-1259.
53. Johannisson, B., Ramirez-Pasillas, M., 2001. Networking for Entrepreneurship: Building a Topography Model of Human, Social, and Cultural Capital. In W. Bygrave et al, (Eds.), Frontiers for Entrepreneurship Research 2001. Wellesley, MA: Center for Entrepreneurial Studies, Babson College.
54. Kandori, M., 1992. Social norms and community enforcement. The Review of Economic Studies 59 (1), 63–80.
55. Khayesi, J., George, G., 2011. When does the socio-cultural context matter? communal orientation and entrepreneurs' resource accumulation efforts in Africa, Journal of Occupational and Organizational Psychology 84 (3), 471-492.
56. Knack, S., Keefer, P., 1997. Does social capital have an economic pay-off? A cross-country investigation. Quarterly Journal of Economics 112, 1251-1288.
57. Krueger, N.F., Reilly, M.D., Carsrud, A.L., 2000. Competing models of entrepreneurial intentions. Journal of Business Venturing 15 (5), 411-432.
58. Kwon S., Arenius, P., 2010. Nations of entrepreneurs: a social capital perspective, Journal of Business Venturing 25 (3), 315-330.
59. Liao, J., Welsch, H., 2005. Roles of social capital in venture creation: Key dimensions and research implications. Journal of Small Business Management 43 (4), 345-362.
60. Light, I., Dana, L.P., 2013. Boundaries of social capital in entrepreneurship. Entrepreneurship: Theory and Practice 37 (3), 603-624.
61. Luhmann, N., 2000. Vertrauen: ein Mechanismus der Reduktion sozialer Komplexität. Lucius & Lucius, Stuttgart, Germany.
62. Lyon, F., 2000. Trust, networks, and norms: the creation of social capital in agricultural economies of Ghana. World Development 28 (4), 663-681.
63. Martez, B., Rodriguez, L., 2004. Church membership, social capital, and entrepreneurship, in Brazilian communities in the U.S., International Research in the Business Discipline 4 (1), 171-201.

64. Meek, W.R., Pacheco, D.F., York, J.G., 2009. The impact of social norms on entrepreneurial action: Evidence from the environmental entrepreneurship context. Journal of Business Venturing 25 (5), 493-509.
65. Murphy, J.P., Liao, J., Welsch, P.H., 2006. A conceptual history of entrepreneurial thoughts. Journal of Management History 12, 9-24.
66. Nahapiet, J., Ghoshal, S., 1998. Social capital, intellectual capital, and the organizational advantage. Academy of Management Review 23 (2), 242-266.
67. Nikolova, E., Ricka, F., Simroth, D., 2012. Entrepreneurship in transition region: an analysis based on the Life in Transition Survey. Working Paper 141, European Bank for Reconstruction and Development (EBRD).
68. Nikolova, E., Simroth, D., 2013. Does cultural diversity help or hinder entrepreneurship? Evidence from Eastern Europe and Central Asia . Working Paper 158, European Bank for Reconstruction and Development (EBRD).
69. Olson, M., 1982. The Rise and Decline of Nations – Economic Growth, Stagflation, and Social Rigidities. Cambridge University Press, NY.
70. Ostrom, E., 2005. Understanding Institutional Diversity. Princeton, NJ: Princeton University Press.
71. Paxton, P., 1999. Is social capital declining in the United States? A multiple indicator assessment. American Journal of Sociology 105, 88-127.
72. Puffer, M.S., McCarthy, J.D., Boisot, M., 2009. Entrepreneurship in Russia and China: The impact of formal institutional voids. Entrepreneurship: Theory and Practice 34 (3), 441-467.
73. Putnam, R., 2000. Bowling Alone – The Collapse and Revival of American Community. Simon & Schuster Press, NY.
74. Reynolds, D., 1997. Who starts new firms? – preliminary explorations of firms-in-gestation, Small Business Economics 9 (5), 449-462.
75. Reynolds, D., Bosma, N., Autio, E., Hunt, S., de Bono, N., Servais, I., Lopez-Garcia, P., Chin, N., 2005. Global entrepreneurship monitor: data collection design and implementation 1998-2003, Small Business Economics 24 (3), 205-231.
76. Riordion, W., 2004. Plunkitt of Tammany Hall. Whitefish, MT: Kessinger Publishing (originally published in 1905).
77. Rousseau, D., Sitkin, S;, Burt, R., Camerer, C., 1998. Not so different after all: A cross-discipline view of trust. Academy of Management Review 23 (3), 393-404.
78. Saegert, S., Thompson, P., Warren, R., 2001. Social Capital and Poor Communities. Russell Sage, New York.
79. Sako, M., 1992. Prices, Quality, and Trust: Interfirm Relations in Britain and Japan. Cambridge University Press, Cambridge, UK.
80. Sarason, Y., Dean, T., Dillard, J.F., 2006. Entrepreneurship as the nexus of individual and opportunity: A structuration view. Journal of Business Venturing 21 (3), 286-305.
81. Scarbrough, H., Swan, J., Amaeshi, K., Briggs, T., 2013. Exploring the role of trust in the deal-making process for early-stage technology ventures. Entrepreneurship: Theory and Practice 37 (5), 1203-1228.
82. Schenkel, T., Hechavarria, M., Matthews, H., 2009. The Role of Human and Social Capital and Technology in Nascent Ventures. In PD Reynolds & RT Curtin (eds.) New Firm Creation in the United States, Berlin, Heidelberg, New York: Springer, 157-183.
83. Shane, S., Cable, D., 2002. Network ties, reputation, and the financing of new ventures, Management Science 48 (1), 364-381.
84. Shane, S., Venkataraman, S., 2000. The promise of entrepreneurship as a field of research, Academy of Management Review 25 (12), 217-22.
85. Smelser, N., Swedberg, R. (Eds.), 1994. The Handbook of Economic Sociology. Princeton University Press, Oxford.

86. Stam, W., Arzlanian, S., Elfring, T., 2014. Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators, Journal of Business Venturing 29 (1), 152-173.
87. Steier, L., Greenwood, R., 2000. Entrepreneurship and the evolution of angel financial networks, Organization Studies 21 (1), 163–192.
88. Stephan, U., Uhlaner, L., 2010. Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship, Journal of International Business Studies 41 (8), 1347-1364
89. Thomas, S., Mueller, L., 2000. A case for comparative entrepreneurship: assessing the relevance of culture. Journal of International Bossiness Studies 31 (2), 287–299.
90. Thornton, P.H., Flynn, K.H., 2003. Entrepreneurship, Networks, and Geographies. In Acs, Z.J., Audretsch, D.B., (Eds.), Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction. London, U.K.: Kluwer. pp. 21–34.
91. Tonoyan, V., Strohmeyer, R., Habib, M., Perlitz, M., 2010. Corruption and entrepreneurship: How formal and informal institutions shape small firm behavior in transition and mature market economies. Entrepreneurship: Theory and Practice 34 (5), 803-831.
92. Van der Zwan, P., Verheul, I., Thurik, R., 2012. The entrepreneurial ladder, and regional development. Small Business Economics, 39 (3), 627-643.
93. Van der Zwan, P., Verheul, I., Thurik, R., Grilo, I., 2010. The entrepreneurial ladder and its determinants. Applied Economics 42 (17), 2183-2191.
94. Van Oorschot, W., 2006. Making the difference in social Europe: deservingness perceptions among citizens of European welfare states, Journal of European Social Policy 16 (1), 23–42.
95. Vivarelli, M., 2004. Are all the potential entrepreneurs so good?. Small Business Economics 23 (1), 41-49.
96. Welter, F., 2012. All you need is trust? A critical review of the trust and entrepreneurship literature. International Small Business Journal 30 (3), 193-212.
97. Welter, F., Smallbone, D., 2006. Exploring the role of trust in entrepreneurial activity. Entrepreneurship: Theory and Practice 30 (4), 465-475.
98. Westlund, H., Adam, F., 2010. Social capital and economic performance: a meta-analysis of 65 studies, European Planning Studies 18 (6), 893-919.
99. Westlund, H., Larsson, J., Olsson, A., 2014. Start-ups and local entrepreneurial social capital in the municipalities of Sweden, Regional Studies 48 (6), 974-994.
100. Wilken, P., 1979. Entrepreneurship: A Comparative and Historical Study, Ablex Publishing, Norwood N. J.
101. Williamson, O., 1993. Calculativeness, trust, and economic organization. Journal of Law and Economics 36 (1), 453-486.
102. Woolcock, M., Narayan, D., 2000. Social capital: Implications for development theory, research, and policy. World Bank Research Observer 15 (2), 225-249.
103. Wooldridge, J., 2002. Econometric Analysis of Cross Section and Panel Data. MIT Press, Cambridge, MA.
104. Zahra, S.A., Sapienza, H., Davidsson, P., 2006. Entrepreneurship and dynamic capabilities: a review, model and research agenda, Journal of Management Studies, 43 (4), 917-955.
105. Zahra, S.A., Wright, M., 2011. Entrepreneurship’s next act. Academy of Management Perspectives 25 (4), 67-83.

Table 1
Trust, networks, norms and entrepreneurial process

	Panel A: Trust and Entrepreneurship			Panel B: Networks and Entrepreneurship			Panel C: Norms and Entrepreneurship		
	Prefer	Tried	Success	Prefer	Tried	Success	Prefer	Tried	Success
TRUST									
Generalized Trust	-0.0030	0.0022	0.0015						
	(0.0027)	(0.0061)	(0.0089)						
Trust in Family and Friends	0.0023	-0.0079	0.0007						
	(0.0023)	(0.0052)	(0.0073)						
Trust in Government	-0.0012**	-0.0012	0.0031*						
	(0.0005)	(0.0011)	(0.0016)						
Trust in Civic Institutions	-0.0033***	-0.0029	-0.0038						
	(0.0012)	(0.0026)	(0.0039)						
Trust in Banks	-0.0066	-0.0050	0.0203**						
	(0.0092)	(0.0067)	(0.0093)						
Trust in Investors	0.0136***	0.0109	-0.0100						
	(0.0030)	(0.0069)	(0.0100)						
NETWORK									
Frequency of Meeting Relatives and Friends				0.0027*	-0.0096***	0.0011			
				(0.0014)	(0.0032)	(0.0050)			
Member of Professional Organization				0.0526***	0.1094***	0.1032***			
				(0.0111)	(0.0237)	(0.0203)			
Member of Labor Union				-0.0594***	-0.1091***	-0.1726***			
				(0.0073)	(0.0166)	(0.0435)			
Member of Other Organizations				0.0015	0.0326***	-0.0355**			
				(0.0046)	(0.0107)	(0.0155)			
NORMS									
Civic Norms							-0.0103***	-0.0132**	0.0104
							(0.0023)	(0.0052)	(0.0079)
Individual Characteristics	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Obs.	27937	6523	1897	29396	8182	2350	28046	7493	2106
Pseudo R	0.0727	0.1244	0.1637	0.0742	0.1281	0.1539	0.0721	0.1257	0.1404

Probit estimations report marginal effects that are calculated as Average Partial Effects. Robust standard errors are in parenthesis. *** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

Table 2
Social capital's dimensions and entrepreneurial process: whole sample and country groupings

	Panel A: Whole Sample			Panel B: Only EU			Panel B: Only Non-EU		
	Prefer	Tried	Success	Prefer	Tried	Success	Prefer	Tried	Success
TRUST									
Generalized Trust	-0.0030	0.0018	0.0059	-0.0007	0.0112	0.0123	-0.0063	-0.0009	-0.0035
	(0.0028)	(0.0065)	(0.0090)	(0.0040)	(0.0111)	(0.0100)	(0.0039)	(0.0075)	(0.0160)
Trust in Family and Friends	0.0020	-0.0054	-0.0028	0.0010	-0.0160*	0.0058	0.0018	0.0024	-0.0144
	(0.0025)	(0.0055)	(0.0078)	(0.0034)	(0.0095)	(0.0080)	(0.0036)	(0.0064)	(0.0142)
Trust in Government	-0.0010*	0.0002	0.0021	-0.0008	0.0034	0.0012	-0.0016**	-0.0015	0.0034
	(0.0005)	(0.0012)	(0.0017)	(0.0008)	(0.0022)	(0.0018)	(0.0007)	(0.0013)	(0.0030)
Trust in Civic Institutions	-0.0031**	-0.0042	-0.0017	-0.0041**	-0.0114**	-0.0041	-0.0018	0.0012	-0.0011
	(0.0012)	(0.0028)	(0.0039)	(0.0017)	(0.0049)	(0.0043)	(0.0018)	(0.0033)	(0.0070)
Trust in Banks	-0.0070	-0.0029	0.0193**	-0.0054	-0.0120	0.0137*	-0.0056	-0.0003	0.0249
	(0.0060)	(0.0070)	(0.0092)	(0.0040)	(0.0116)	(0.0084)	(0.0044)	(0.0083)	(0.0174)
Trust in Investors	0.0129***	0.0094	-0.0047	0.0127***	0.0221*	-0.0051	0.0114**	0.0028	-0.0008
	(0.0032)	(0.0073)	(0.0099)	(0.0044)	(0.0125)	(0.0097)	(0.0047)	(0.0085)	(0.0186)
NETWORK									
Frequency of Meeting Relatives and Friends	0.0042**	-0.0080**	0.0015	0.0040*	-0.0121*	-0.0043	0.0053**	-0.0041	0.0076
	(0.0017)	(0.0039)	(0.0055)	(0.0025)	(0.0067)	(0.0057)	(0.0024)	(0.0045)	(0.0105)
Member of Professional Organization	0.0603***	0.1348***	0.0813***	0.0758***	0.1600***	0.0486***	-0.0057	0.0840*	0.1426***
	(0.0127)	(0.0267)	(0.0223)	(0.0149)	(0.0328)	(0.0180)	(0.0213)	(0.0465)	(0.0564)
Member of Labor Union	-0.0712***	-0.1207***	-0.1801***	-0.0663***	-0.1606***	-0.1223**	-0.0599***	-0.0833***	-0.2582***
	(0.0086)	(0.0194)	(0.0517)	(0.0107)	(0.0319)	(0.0580)	(0.0142)	(0.0244)	(0.0859)
Member of Other Organizations	0.0045	0.0295**	-0.0394**	0.0148**	0.0175	0.0068	-0.0064	0.0411***	-0.1130***
	(0.0055)	(0.0125)	(0.0167)	(0.0071)	(0.0197)	(0.0167)	(0.0084)	(0.01540	(0.0321)
NORMS									
Civic Norms	-0.0082***	-0.0172***	0.0056	-0.0051	-0.0213*	0.0128	-0.0113***	-0.0129**	-0.0009
	(0.0028)	(0.0061)	(0.0082)	(0.0040)	(0.0114)	(0.0080)	(0.0039)	(0.0065)	(0.0151)
Individual Characteristics	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Obs.	25460	5945	1703	12709	2640	941	12751	3305	762
Pseudo R	0.0739	0.1366	0.1729	0.0834	0.1287	0.159	0.0682	0.1298	0.1387

Probit estimations report marginal effects that are calculated as Average Partial Effects. Robust standard errors are in parenthesis. *** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

ANNEX

Table A.1
Sample size and entrepreneurship activities by country

		Panel A: Samples	Panel B: Entrepreneurial Process		
	Country Name	Country Sample Size	Individuals who prefer self-employment	Individuals (among preferred) who tried to open a business	Individuals (among preferred and tried) who succeed in creating a business
1	Albania	1,055	31%	38%	86%
2	Armenia	1,000	15%	14%	59%
3	Azerbaijan	1,002	9%	19%	39%
4	Belarus	1,000	34%	17%	54%
5	Bosnia & Herzegovina	1,087	13%	22%	77%
6	Bulgaria	1,014	17%	34%	87%
7	Croatia	1,006	17%	32%	74%
8	Czech	1,007	17%	50%	91%
9	Estonia	1,002	19%	27%	76%
10	Former Yugoslavia	1,072	21%	28%	79%
11	France	1,009	32%	35%	86%
12	Georgia	1,000	11%	21%	65%
13	Germany	1,042	14%	56%	88%
14	Hungary	1,054	10%	54%	98%
15	Italy	1,049	25%	25%	91%
16	Kazakhstan	1,000	30%	22%	65%
17	Kosovo	1,091	14%	13%	65%
18	Kyrgyzstan	1,016	35%	16%	64%
19	Latvia	1,007	15%	27%	68%
20	Lithuania	1,013	13%	25%	83%
21	Moldova	1,043	24%	24%	61%
22	Mongolia	1,000	30%	36%	61%
23	Montenegro	1,013	19%	22%	79%
24	Poland	1,616	34%	29%	95%
25	Romania	1,078	16%	28%	67%
26	Russia	1,584	34%	26%	61%
27	Serbia	1,519	20%	42%	78%
28	Slovakia	1,011	18%	45%	94%
29	Slovenia	1,000	19%	32%	89%
30	Sweden	900	20%	56%	95%
31	Tajikistan	1,007	31%	12%	55%
32	Turkey	1,004	39%	17%	87%
33	United Kingdom	1,504	36%	43%	95%
34	Ukraine	1,559	48%	18%	57%
35	Uzbekistan	1,500	38%	23%	67%

Table A.2
Correlation and descriptive statistics for social capital variables

		1	2	3	4	5	6	7	8	9	10	11	Mean	S.D.
1	Generalized Trust	1.0000											2.9557	1.0528
2	Trust in Family and Friends	0.2021*	1.0000										8.7623	1.1528
3	Trust in Government	0.2359*	0.1745*	1.0000									22.0348	7.3302
4	Trust in Civic Institutions	0.1961*	0.1259*	0.4679*	1.0000								8.3002	2.9498
5	Trust in Banks	0.1702*	0.1414*	0.4888*	0.4090*	1.0000							2.9368	1.2361
6	Trust in Investors	0.1924*	0.1150*	0.4714*	0.5337*	0.6181*	1.0000						2.7217	1.1554
7	Frequency of Meeting Relatives & Friends	0.0483*	0.0971*	0.0267*	0.0749*	0.0387*	0.0572*	1.0000					6.9338	1.6941
8	Member of Professional Organization	0.0518*	0.0288*	0.0154*	0.0317*	-0.0153*	-0.0049*	0.0182*	1.0000				0.0539	0.2257
9	Member of Labor Union	0.0665*	0.0301*	0.0145*	0.0440*	0.0015	-0.0066*	0.0009	0.3138*	1.0000			0.0875	0.2826
10	Member of Other Organizations	0.0553*	0.0308*	-0.0003	0.0647*	-0.0187*	-0.0114*	0.0326*	0.2435*	0.2091*	1.0000		0.3369	0.5163
11	Civic Norms	0.0428*	0.0200*	0.0680*	0.0648*	0.0169*	0.0285*	-0.0100*	0.0132*	-0.0087*	0.0241*	1.0000	6.2577	0.9639

* Significant at 5% level.

Table A.3
Variable definitions

Variable Name	Description	Question #
Entrepreneurship Variables		
Preference	Dummy variable equal to 1 if respondent prefers self-employment to any other job alternatives, 0 otherwise	q526
Trial| Preference	Dummy variable equal to 1 if respondent prefers and has ever tried to set up a business, 0 otherwise	q530
Success| Trial| Preference	Dummy variable equal to 1 if respondent who prefers to be self-employed has succeeded in setting up a business, 0 otherwise	q532
Panel A. Social Capital Variables		
TRUST		
Generalized trust	Score of respondent's trust in other people on a scale from 1 to 5 (higher means more trust)	q302
Trust in family and friends	Score of respondent's trust in family and friends on a scale from 2 to 10 (higher means more trust)	q304
Trust in government	Score of respondent's trust in all (8) types of government institutions on a scale from 8 to 40 (higher means more trust)	q303
Trust in banks	Score of respondent's trust in banks and financial system on a scale from 1 to 5 (higher means more trust)	q303
Trust in foreign investors	Score of respondent's trust in foreign investors on a scale from 1 to 5 (higher means more trust)	q303
Trust in civic institutions	Score of respondent's trust in civic institutions (e.g., non-governmental institutions, trade unions and religious institutions) on a scale from 1 to 15 (higher means more trust)	q303
NETWORK		
Frequency of meeting relatives and friends	Score of respondent's frequency of meeting relatives and friends on a scale from 2 to 10 (higher means more frequent)	q324 & q325
Member of professional association	Dummy variable equal to 1 if respondent is a member of a professional association	q713
Member of labor union	Dummy variable equal to 1 if respondent is a member of a labor union	q713
Member of other institutions	Dummy variable equal to 1 if respondent is a member of at least one of other institutions (e.g. political party, church and religious organizations; sport and recreational organizations and associations; art, music or educational organizations; environment organization; humanitarian or charitable organization; and youth associations), 0 otherwise	q713
NORMS		
Civic norms	Score of respondent's view on how wrong to break the rules on scale from 0 to 7 (higher means more wrong)	q322
Panel B: Control variables		
Age	Age of respondent	q104
Age2	Age square of respondent	q104
Male	Dummy variable equal to 1 if respondent is male	q515
Secondary education	Dummy variable equal to 1 if respondent completed lower secondary, upper secondary or prost secondary education	q515
Higher education	Dummy variable equal to 1 if respondent completed Bachelor, Masters and higher education	q515
Subjective health	Dummy variable equal to 1 if respondent's health is good or very good	q704
Having car	Dummy variable equal to 1 if respondent or anyone in his/her household owns a car	q225
Having bank account or card	Dummy variable equal to 1 if respondent or anyone in his/her household owns a bank account and/or credit card	q225
Risk taker	Score of respondent's willingness to take risks in general on a scale from 1 to 10 (higher means more risk taker)	q537

Table A.4
Individual level determinants and country fixed effects of entrepreneurial process

	Prefer		Tried		Success	
	Marginal Effect	Robust Std. Err.	Marginal Effect	Robust Std. Err.	Marginal Effect	Robust Std. Err.
INDIVIDUAL VARIABLES						
Male	0.0478***	0.0055	0.0854***	0.0122	-0.0202	0.0179
Age	0.0039***	0.0009	0.0159***	0.0023	0.0037	0.0033
Age sq.	-0.0001***	0.0000	-0.0001***	0.0000	0.0000	0.0000
Subjective Health	0.0120**	0.0061	-0.0022	0.0140	0.0504**	0.0214
Secondary Education	0.0004	0.0092	0.0557**	0.0223	-0.0083	0.0371
Higher Education	-0.0122	0.0105	0.0994***	0.0282	0.0142	0.0393
Bank account/card	0.0203***	0.0073	0.0551***	0.0175	0.0221	0.0250
Having Car	0.0346***	0.0060	0.1088***	0.0138	0.0645***	0.0236
Risk Taker	0.0236***	0.0011	0.0301***	0.0026	0.0112***	0.0036
COUNTRY FIXED EFFECTS						
Albania	-0.0165	0.0210	0.0475	0.0503	0.1060***	0.0275
Armenia	-0.0580***	0.0220	-0.2025***	0.0283	-0.0468	0.1297
Azerbaijan	-0.1640***	0.0106	-0.0637	0.0616	-0.1364	0.1293
Belarus	0.1067***	0.0294	-0.1060***	0.0395	-0.1526	0.1041
Bosnia & Herzegovina	-0.1550***	0.0111	-0.1556***	0.0346	0.0495	0.0611
Bulgaria	-0.1067***	0.0166	-0.0901**	0.0445	0.0871**	0.0409
Croatia	-0.1174***	0.0148	-0.1126***	0.0395	-0.0313	0.0763
Czech	-0.1272***	0.0138	0.0403	0.0567	0.1253***	0.0216
Estonia	-0.0373*	0.0230	-0.1049**	0.0428	-0.0047	0.0740
Former Yugoslavia	-0.0961***	0.0161	-0.1030***	0.0395	0.0190	0.0605
France	-0.0095	0.0219	-0.1119***	0.0361	0.0665	0.0431
Georgia	-0.1250***	0.0157	-0.1008*	0.0521	-0.0133	0.0964
Germany	-0.1419***	0.0125	0.0476	0.0582	0.0647	0.0463
Hungary	-0.1504***	0.0121	0.1063	0.0692	0.1090***	0.0292
Italy	-0.0610***	0.0186	-0.1438***	0.0327	0.0384	0.0588
Kazakhstan	0.0328	0.0248	-0.1195***	0.0364	-0.0143	0.1139
Kosovo	-0.1423***	0.0130	-0.1765***	0.0360	0.0018	0.0654
Kyrgyzstan	0.0595**	0.0259	-0.1307***	0.0338	-0.0188	0.0929
Latvia	-0.1323**	0.0151	-0.1200***	0.0465	0.0348	0.0723
Lithuania	-0.1096**	0.0168	-0.1471***	0.0380	0.0106	0.0655
Moldova	0.0080	0.0255	-0.1011**	0.0410	0.0457	0.0461
Mongolia	0.0276	0.0249	0.1218**	0.0579	0.0259	0.0631
Montenegro	-0.0933***	0.0168	-0.1346***	0.0361	0.1293***	0.0213
Poland	-0.0796***	0.0160	-0.1318***	0.0323	0.0332	0.0624
Romania	-0.1207***	0.0147	-0.1046**	0.0437	-0.0753	0.0839
Russia	-0.0326	0.0212	-0.0612	0.0441	0.0471	0.0473
Serbia	-0.1451***	0.0118	0.0055	0.0504	0.1208***	0.0238
Slovakia	-0.1209***	0.0144	0.0251	0.0557	0.0864**	0.0385
Slovenia	-0.1164***	0.0149	-0.0957**	0.0420	0.1424***	0.0173
Sweden	-0.0600***	0.0201	0.0536	0.0577	-0.0801	0.1053
Tajikistan	0.0682***	0.0264	-0.1819***	0.0286	0.0881***	0.0347
Turkey	0.0966***	0.0260	-0.1095***	0.0360	0.1437***	0.0198
United Kingdom	-0.0757***	0.0170	-0.0471	0.0426	0.0069	0.0612
Ukraine	0.0620***	0.0238	-0.1419***	0.0306	-0.0401	0.0406
Observations	25460		5945		1703	
Pseudo R^2	0.0739		0.1366		0.1729	

Probit estimations report marginal effects that are calculated as Average Partial Effects. All three models include full set of social capital variables. *** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

EMPIRICAL STUDY OF ASSESSMENT OF ENTREPRENEURIAL SKILLS, KNOWLEDGE AND ATTITUDES OF UNIVERSITY STUDENTS IN BOSNIA AND HERZEGOVINA

Elvira ĆATIĆ-KAJTAZOVIĆ[279],

Amra NUHANOVIĆ[280],

Sanita BILANOVIĆ

Abstract

One of the eight key competences defined by European Reference Framework is the Sense of initiative and entrepreneurship with definition of essential knowledge, skills and attitudes related to this competence. Also, actualization of entrepreneurship skills, knowledge and attitudes is evident in the creation of strategies, educational policies, maintenance of conferences and round tables that emphasize the importance of entrepreneurship as a key competence and entrepreneurship education.

Most of these documents and events have resulted in the conclusion that entrepreneurship is already taught in kindergarten. In this regard, the state of Bosnia and Herzegovina (BaH) has joined the mentioned streams by identifying key competencies and life skills of young people, and by adopting specific learning strategies about entrepreneurship. At the same time unemployment is especially manifested in BaH, as well as the growing dissatisfaction of employers on the acquired knowledge and skills of newly employed workers (especially those who have a degree of higher education).

Therefore, the key issues related to entrepreneurial knowledge, entrepreneurial skills, entrepreneurial attitudes, entrepreneurial intentions and sense of initiative were part of a questionnaire that was used as the research tool on a sample of students of Economics, Law, Technical and Biotechnical Faculty at the University of Bihac, students of Faculty of Economics at the University of Tuzla, and students at the University of Sarajevo.

The empirical research was aimed to detect whether there is a difference in entrepreneurial knowledge, skills, intentions and mindset among students considering: different faculties and universities, certain demographic characteristics, participation in entrepreneurship curricular activities, their engagement in extracurricular activities and close person dealing with entrepreneurship. In this way an attempt was made to get answers on which of the above listed factors has the most influence on the entrepreneurial competence of BaH students.

Contrary to the expected results, entrepreneurial competence of students of economics does not differ significantly compared to the level of entrepreneurial competencies of students of other faculties. Accordingly, participation in extracurricular activities has a far greater impact on entrepreneurial competences than curricular activities.

Aim of this research was also, to reveal the desire of students after graduation when it comes to their future careers. As expected most students after graduation want to work in the public sector. They do not have excessive desire to start their own enterprises, and the private sector is seen as "exploiter of labor force". On the basis of the obtained results some recommendations have been created and presented that should help in achieving the basic goals of entrepreneurial education.

***Keywords*:** *entrepreneurial knowledge, entrepreneurial skills, entrepreneurial attitudes, entrepreneurial intentions, students.*

[279]University of Bihac, Faculty of Economics, Pape Ivana Pavla II, No2, 77 000 Bihac, BiH, elviracatickajtazovic@gmail.com

[280] University of Tuzla, Faculty of Economics, Univerzitetska 8, 77500 Tuzla, BiH, amra.nuhanovic@untz.ba

1. Introduction

It is commendable that the government of BaH has a special strategy for entrepreneurial learning. However, regardless of the stated strategy and other key documents, in which it stresses the importance of entrepreneurial competence and the importance of entrepreneurial education, economic development of the country and a huge number of unemployed are a sign that the effects of the above documents are absent, the effects of entrepreneurship education are absent either.[281] The dissatisfaction of employers with the level of acquired knowledge and skills of new employees are in favor of the above statement.

Of course, educational institutions (in this case, particularly universities) have to take some responsibility for that dissatisfaction. And even the educational institutions must be entrepreneurial institutions! At a time when "it is only certain that tomorrow is uncertain" in "hurry and rush" time, a *key word* emerged – it is the word "adjustment". So if "only those who adapt survive" (Darwinism), the question is: can universities teach "adapting" if they themselves are not able to adapt? And not only do universities need to successfully respond to the "hurry and rush" time they should be the creators of such time. Universities need to criticize, create, innovate, encourage, respond, adapt, and *etc*. It seems that in BaH universities are not up to the above challenges. And not only in BaH, " Exactly insufficient preparation of the universities to respond to the needs of the global competitive society in transition economies and developing countries is highlighted as one of the main reasons for the marginalization and stagnation in the world economy" (Oberman Peterka, Singer and Alpeza, 2012, p.280).

As "entrepreneurial education represents a mixture of entrepreneurial learning, development of skills, and most important, and change in the way of thinking" (Sedlan-Konig, 2012, p.3), it is difficult to determine what of the mentioned is missing the most in BaH. However, it is easy to determine what will be the most difficult to achieve. According to the humble opinion of this author's work, change in the way of thinking is the hardest to achieve, also it is an inseparable part of the mixture of entrepreneurial learning in BaH. Therefore, this paper represents an attempt to assess entrepreneurial skills, knowledge and attitudes of university students in BaH.

2. Theoretical background

Sense of initiative and entrepreneurship is one of the eight key competences defined by the European Reference Framework. "Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and it is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance" (European Reference Framework).

According to the Strategy of entrepreneurship learning in education systems in BaH for the period 2012-2015, sense of initiative and entrepreneurship represents "a crucial skill that is required at all levels of education through experiential learning" (Strategy, p.6). As further stated in the Strategy "Learning about entrepreneurship in formal education should focus on the key knowledge, skills and attitudes in the context of Sense of initiative and entrepreneurship, with particular reference to the introduction of good practices in the curricula ... " (Strategy, p.14).

[281]The aim of the new entrepreneurial approach to education is that with the help of new ideas in the field of entrepreneurship learning significant results can be achieved. Strategy, p.5.

Although BaH has disastrous data on unemployment, in the other hand there are very common complaints that employers are not able to find the right workforce. There are frequent complaints about the level of acquired knowledge and skills of graduates and their lack of initiative, responsibility and motivation. It is obvious that graduates lack entrepreneurial competence. Therefore, it is necessary to call on the responsibility of the university.

"The importance of university education is especially great because it directly influences the productivity and competitiveness of the economy as well as the improvement of the general living standards" (Bejaković, 2004 in Sedlan-Konig, 2013, p.58). "Global experience from the most developed economies and regions has revealed the important role of universities and other higher education institutions for successful economic expansion" (Additonal and Širec, 2011, p.15). Entrepreneurship and the Role of Universities have been topics on the main agenda since the 1990's and the EU. The role of universities and their non / adaptation to changes in the environment, are particular in the current academic circles (Vukovic, Kedmenec, Horvat and Korent, 2011; Oberman Peterka, Singer and Alpeza, 2012; Dabic, Gonzalez-Loureiro and Daim 2015).

What stands out in most academic papers that deal with this topic is the importance of entrepreneurial education for the economic development of the country and the importance of higher education institutions in the process of developing the basic components of entrepreneurial education, which are: knowledge, skills and attitudes. Taking into account all factors relevant to entrepreneurial behavior (Krečar Miljkovic, 2013), recognizing the importance of entrepreneurial behavior for economic development and educational institutions in economic development, universities must take responsibility for this kind of economic situation of the state of BaH.

3. Research Methodology

The survey was conducted using questionnaires ASTEE (ASTEE- *Assessment Tools and Indicators for Entrepreneurship Education -Tertiary Level*). After obtaining approval for the use and additional modification of the questionnaire in BaH, the same was translated into Bosnian and tested in a pilot study on a sample of 60 students of three public universities. Since the survey questions relate to "entrepreneurial knowledge, entrepreneurial skills, attitude to entrepreneurship, entrepreneurial intentions and sense of initiative", a pilot survey has been conducted in order to assess whether the questions were set clear, unambiguous, or whether they could be understood properly.

After analysing the results of the pilot survey final modifications of the ASTEE questionnaires for use in BaH were made.

ASTEE questionnaire consists of 5 headings which make dependent and independent variables of this research presented in the following table.

Table 1: Variables of Research

	Scale	Variables of Research
Independent variables	Basic characteristics	Faculty University Participate/ing in entrepreneurship course or module Participate/ing in an extra-curricular activity
Dependent variables	Mindset	Entrepreneurial mindset Core self-evaluation Entrepreneurial attitudes
	Knowledge	Entrepreneurial knowledge
	Entrepreneurial skills	Creativity Financial literacy Managing ambiguity Marshalling of resources Planning
	Intentions and connectedness to labour market	Innovative employee Entrepreneurial intentions

Based on these variables, following hypotheses have been set:

H1: There is a difference in the entrepreneurial knowledge, skills, intentions and thinking among students due to the faculties they attend.

H2: There is a difference in the entrepreneurial knowledge, skills, intentions and way of thinking among students given the different universities.

H3: There is a difference in the entrepreneurial knowledge, skills, intentions and way of thinking among students due attendance at courses in entrepreneurship, participation in extracurricular activities that focus on entrepreneurship and close person dealing with entrepreneurship.

A total of 1000 questionnaires have been prepared and distributed. Of the 1,000 distributed, a total of 397 were returned, which makes the rate of return 39.7%. The validity of the responses was checked in the first preliminary examination. It was found that of 397 returned questionnaires, 39 were incomplete, so they were excluded from further analysis as invalid questionnaires. The chart gives an overview of the faculties and universities, on the basis of further statistical processing of returned questionnaires.

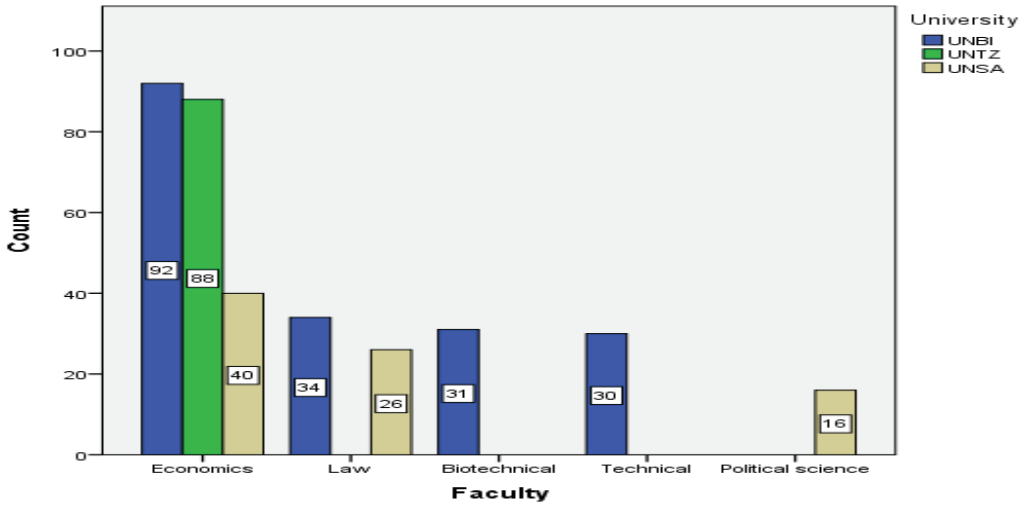


Figure 1: The share of students due to the faculties and universities

The total sample is composed of two sub-samples. The first sample consists of students from the faculties of economics of the University of Sarajevo, the University of Tuzla and the University of Bihac (220 students), while the second sub sample consisted of students of the Law, Technical, Biotechnical faculty of the University of Bihac and the University of Sarajevo, as well as students of the Political Sciences faculty of the University of Sarajevo.

Statistical analysis of the collected data was performed using the Statistical Package for Social Sciences SPSS software version 20th.

4. The survey results

4.1. Correlation analysis

Results of the relation between the dependent and independent variables of this research are presented in the following table. We should be very careful in explanation of the correlation analysis, since "The correlation is about connection, not about cause-and-effect relationship between the variables." (Udovicic, Bazdaric, Bilic - Zulle and Petrovečki, 2007, p.13).

Table 2: Values of Pearson correlation coefficient

Dependent variables	*Independent variables*				
	Faculty	University	Self-employed	Entrepreneurship course or module	Extra-curricular activity
Entrepreneurial mindset	0,08	**0,34****	**0,14****	-0,02	-0,09
Core self-evaluation	0,08	**0,12***	0,04	0,02	-0,04
Entrepreneurial attitudes	**0,11***	**0,22****	0,06	-0,01	-0,00
Entrepreneurial knowledge	**-0,15****	**0,22****	-0,05	-0,09	-0,10
Creativity	0,04	**0,21****	0,05	**-0,11***	**-0,21****
Financial literacy	-0,01	**0,25****	**0,12***	**-0,15****	**-0,20****
Managing ambiguity	0,05	**0,22****	**0,14****	-0,09	**-0,16****
Marshalling of resources	0,03	**0,21****	0,07	-0,01	**-0,20****
Planning	-0,01	**0,23****	0,01	-0,08	**-0,24****
Innovative employee	**-0,11***	0,09	-0,04	-0,09	-0,02
Entrepreneurial intentions	**-0,16****	0,02	**-0,12***	-0,09	**-0,21****

** p<0.01; * p<0.05

The table shows that the independent variable *University* is associated with the the following dependent variables: *Entrepreneurial mindset, core self-evaluation, Entrepreneurial Attitudes, Entrepreneurial knowledge, Creativity, Financial literacy, Managing ambiguity, Marshalling of resources and Planning*. So of all the independent variables, the strongest associations has the variable University, then Shares in extra-curricular activity, while the independent variable Faculty and Entrepreneurship course or modules associates with four dependent variables. Since using the correlation can not determine cause-and-effect relationship between variables, but only the correlation between variables, nor it could have been determined whether there are differences which could approve or reject the proposed hypotheses research, we accessed to the testing of differences by T-test and ANOVA.

4.2. Independent samples T-test and ANOVA

4.2.1. Testing difference in the entrepreneurial knowledge, skills, intentions and mindset in students due to the faculties they attend

In testing the first assumption of this research, the entire sample was taken into account (students of all faculties and universities that participated in the study), to determine whether there are differences in the entrepreneurial mindset, knowledge, skills and intentions among students considering different faculties. ANOVA results are shown in the following table.

Table 3: Differences in the entrepreneurial mindset, knowledge, skills and intentions given the faculties

Scale	*Dependent variables*	F	p
MINDSET	Entrepreneurial mindset*	5,52	0,00
	Core self-evaluation*	7,84	0,00
	Entrepreneurial attitudes*	9,77	0,00
KNOWLEDGE	Entrepreneurial knowledge*	9,66	0,00
INTENTIONS AND CONNECTEDNESS TO LABOUR MARKET	Innovative employee*	6,90	0,00
	Entrepreneurial intentions*	7,80	0,00

* $p<0,05$

One-way analysis of variance showed a statistically significant difference (at a significance level of 0.05) in the entrepreneurial mindset, knowledge and intentions among the surveyed students considering different faculties. Comparisons using Tukeyevog HSD test showed that the mean value of groups of students of economics, differ significantly with respect to groups of students from other faculties only for the following variables: Entrepreneurial mindset, core self-evaluation and Entrepreneurial attitudes and that only in relation to the law students (while compared to others there is no statistically significant difference). Other differs are: with the variable Entrepreneurial knowledge only in relation to the students of the Biotechnical Faculty; with the variable Innovative employee in relation to students of political science; and the variable Entrepreneurial intentions in relation to law students and students of political science.

Devastating results are that there is no statistically significant differences in variables Creativity, Financial literacy, managing ambiguity, Marshalling of Resources and Planning between students of economics and others.

Finally, it can be concluded that there is a difference in the entrepreneurial knowledge, intent and thinking among students considering different faculties, while there is no statistically significant difference in entrepreneurial skills (Creativity, Financial literacy, managing ambiguity, Marshalling of Resources and Planning) among the surveyed students from different faculties.

4.2.2. Testing difference in the entrepreneurial knowledge, skills, intentions and mindset in students considering different universities

In testing the second assumption of this research, only the first sub-sample which consists of students of economics at the University of Sarajevo, University of Tuzla and University of Bihac has been taken into account. One-way analysis of variance tested differences in entrepreneurial knowledge, skills, intentions and thinking among students considering different universities. As shown in the table below, the results of the ANOVA showed a statistically significant difference in each variable.

Table 4: Differences in the entrepreneurial mindset, knowledge, skills and intentions of students of economics given the universities

Scale	*Dependent variables*	F	p
MINDSET	Entrepreneurial mindset*	19,15	0,00
	Core self-evaluation*	9,57	0,00
	Entrepreneurial attitudes*	5,46	0,01
ENTREPRENEURIAL KNOWLEDGE	Entrepreneurial knowledge*	8,17	0,00
ENTREPRENEURIAL SKILLS	Creativity*	10,60	0,00
	Financial literacy*	15,30	0,00
	Managing ambiguity*	7,32	0,00
	Marshalling of resources*	9,10	0,00
	Planning*	15,12	0,00
INTENTIONS AND CONNECTEDNESS TO LABOUR MARKET	Innovative employee*	4,78	0,01
	Entrepreneurial intentions*	4,60	0,01

* *p<0,05*

Statistically significant differences and the mean value of the group of students of economics at the University of Bihac (UNBI), the University of Tuzla (UNTZ) and the University of Sarajevo (UNSA) are most obvious by means plots, as shown in the figure below.

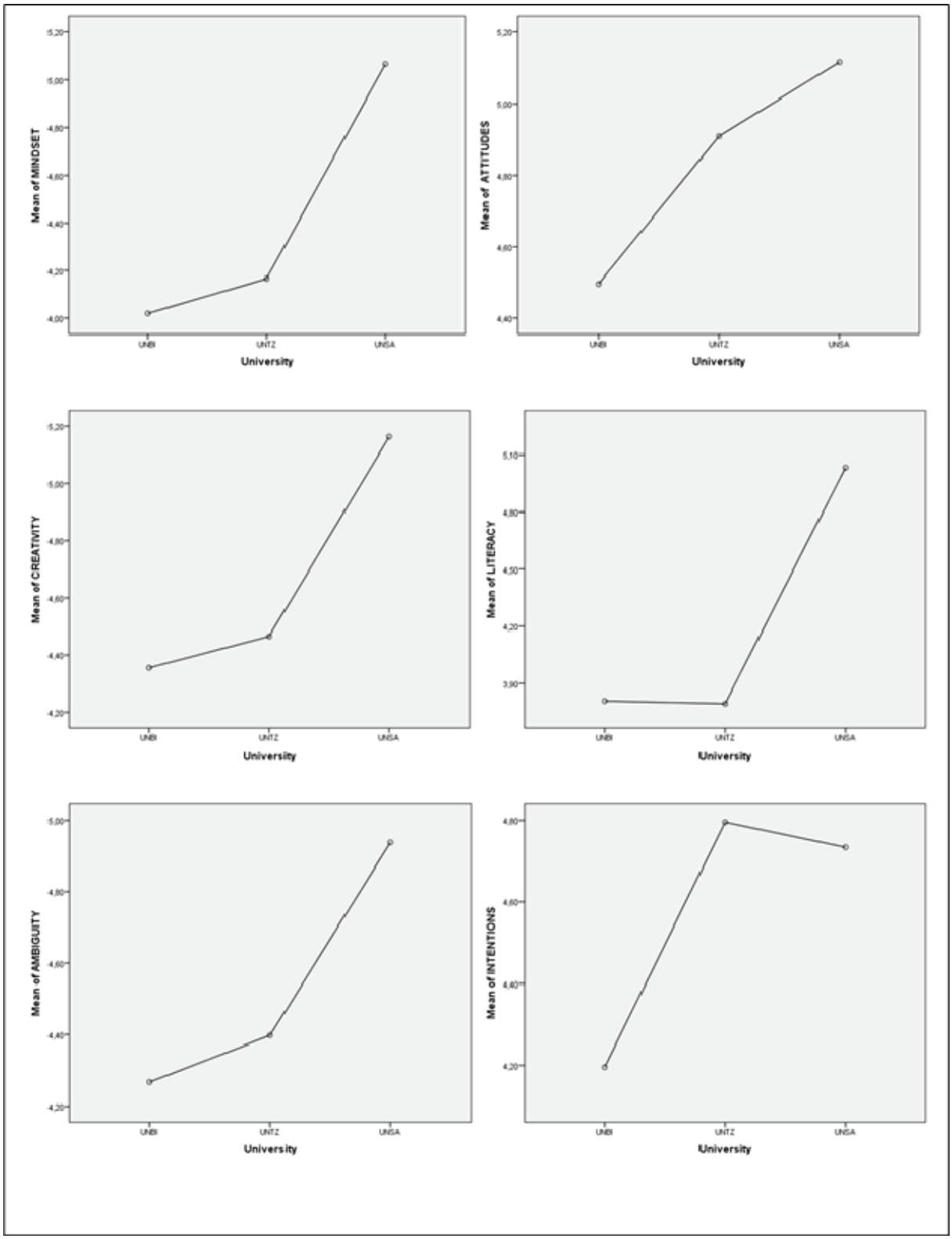


Figure 2: Graphical representation of present value in view of the different universities

What is revealed by this research is particularly alarming for teachers at the University of Bihac. In the most of the tested variables it is noticeable that the least achieved mean values are exactly among students of the Faculty of Economics at the University of Bihac.

4.2.3. Testing difference: attendance in entrepreneurship course or module, in extracurricular activities and existence of a close person who is self-employed

Independent samples t-test has been used in testing the differences in entrepreneurial knowledge, skills, intentions and thinking among students due to attendance in entrepreneurship courses. T-test revealed a difference only in the following variables: Creativity and Financial literacy. No difference due to attending courses/ modules in entrepreneurship was revealed in the variables: Entrepreneurial mind set, Core self-evaluation, Entrepreneurial attitudes, Entrepreneurial knowledge, Managing ambiguity, Marshalling of resources, Planning, Innovative employee and Entrepreneurial Intentions. As we can see in the table below, the mean values are higher among students who have attended entrepreneurship course or module, compared to students who do not or have not attended.

Table 5: Significant differences due to participate/ing in entrepreneurship course or module

Dependent variables	Entrepreneurship course or module?	M	t	Df	p
Creativity	Yes	4,68	2,13	351	0,03
	No	4,46			
Financial literacy	Yes	4,21	2,90	351	0,01
	No	3,80			

The independent samples t-test has been used in testing the differences in entrepreneurial knowledge, skills, intentions and mindset with regard to the participation of students in extracurricular activities that focus on entrepreneurship. Results of this test (shown in the table) revealed that there is a statistically significant difference in mean values between students who participated and those who did not participate in an extra-curricular activity for the following variables: Creativity, Financial literacy, Managing ambiguity, Marshalling of resources, Planning and Entrepreneurial intentions. Respectively, participation in extracurricular activities affects all the variables of entrepreneurial skills and entrepreneurial intentions of students.

Table 6: Statistically significant differences due to participate/ing in extra-curricular activity that focuses on entrepreneurship

Dependent variables	Extra-curricular activity	M	t	Df	p
Creativity	Yes	4,97	3,99	356	0,00
	No	4,45			
Financial literacy	Yes	4,53	3,84	356	0,00
	No	3,84			
Managing ambiguity	Yes	4,77	3,07	356	0,00
	No	4,37			
Marshalling of resources	Yes	5,18	4,62	106,16	0,00
	No	4,61			
Planning	Yes	4,97	5,51	108,20	0,00
	No	4,23			
Entrepreneurial intentions	Yes	4,97	4,09	356	0,00
	No	4,15			

One-way analysis of variance showed a statistically significant difference at Entrepreneurial mindset (F=3,64, p=0,01), Managing ambiguity (F=3,01, p=0,02), Entrepreneurial intentions (F=5,41, p=0,00) and Innovative employee (F=7,43, p=0,00). The following graph shows statistically significant difference of reached average values at variable Entrepreneurial intentions of those students who have a close person who is self-employed compared to students who do not have such a person.

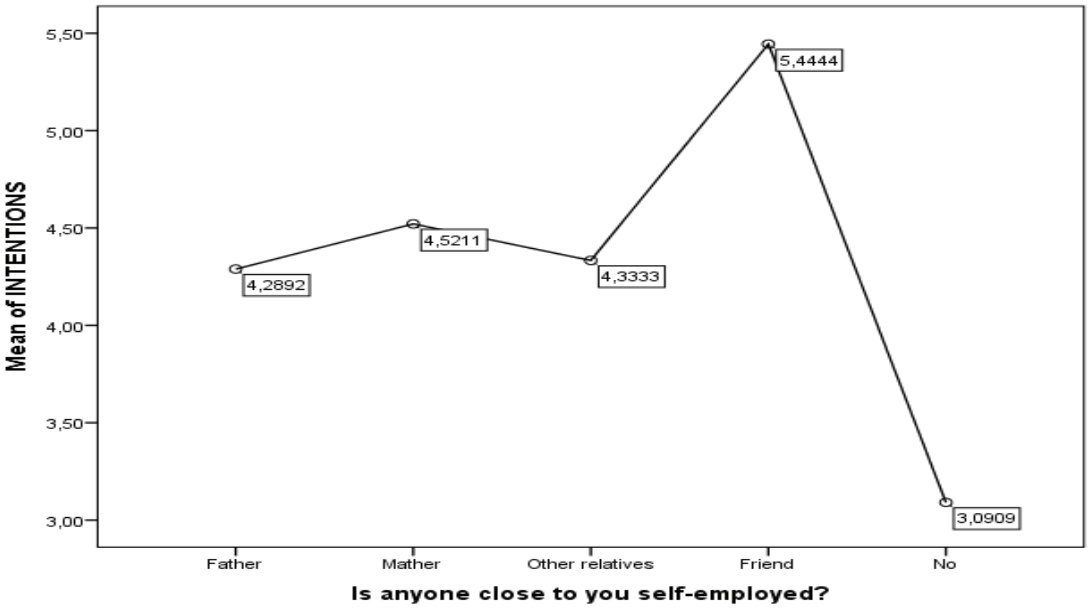


Figure 3: Interaction Entrepreneurial intentions and the existence of a close person who is self-employed

4.2.4. Results of testing hypothesis

Due to the transparency and accuracy, test results of the aforementioned hypothesis of this research and the impact of certain factors on entrepreneurial mindset, knowledge, skills and intentions, are presented in the following table.

Table 7: Results of testing hypothesis

Scale	*Dependent variables*	H1	H2	H3		
		Faculty	University	Course	Extra-curr	Self-empl
MINDSET	Entrepreneurial mindset	+	+	-	-	+
	Core self-evaluation	+	+	-	-	-
	Entrepreneurial attitudes	+	+	-	-	-
ENTREPRENEURIAL KNOWLEDGE	Entrepreneurial knowledge	+	+	-	-	-
ENTREPRENEURIAL SKILLS	Creativity	-	+	+	+	-
	Financial literacy	-	+	+	+	-
	Managing ambiguity	-	+	-	+	+
	Marshalling of resources	-	+	-	+	-
	Planning	-	+	-	+	-
INTENTIONS AND CONNECTEDNESS TO LABOUR MARKET	Innovative employee	+	+	-	-	+
	Entrepreneurial intentions	+	+	-	+	+

Finally, we can conclude the following:

- With reference to the various faculties, there is a difference in the entrepreneurial knowledge, intentions and mind set, while there is no difference in entrepreneurial skills in the achieved average values of the surveyed students.

- With reference to various universities, there is a difference in all tested variables with obvious lower values for students of the University of Bihac.
- With regard of attending courses / modules in entrepreneurship, there is a difference in Creativity and Financial Literacy, while there is no difference in the Entrepreneurial mind set, Core self-evaluation, Entrepreneurial attitudes, Entrepreneurial knowledge, Managing ambiguity, Marshalling of resources, Planning, Innovative employee and Entrepreneurial intentions.
- With regard to participation in extracurricular activities, there is a difference in all variables of entrepreneurial skills and entrepreneurial intentions in achieved average values of the surveyed students.
- In view of the existence of a close person who is self-employed, there is a difference only for variable: Entrepreneurial mindset, Managing ambiguity, Entrepreneurial Intentions and Innovative employee.

Aim of this research was also, to reveal the desire of students after graduation when it comes to their future careers. As shown in the figure below, only 10,72% students want to work in the private sector.

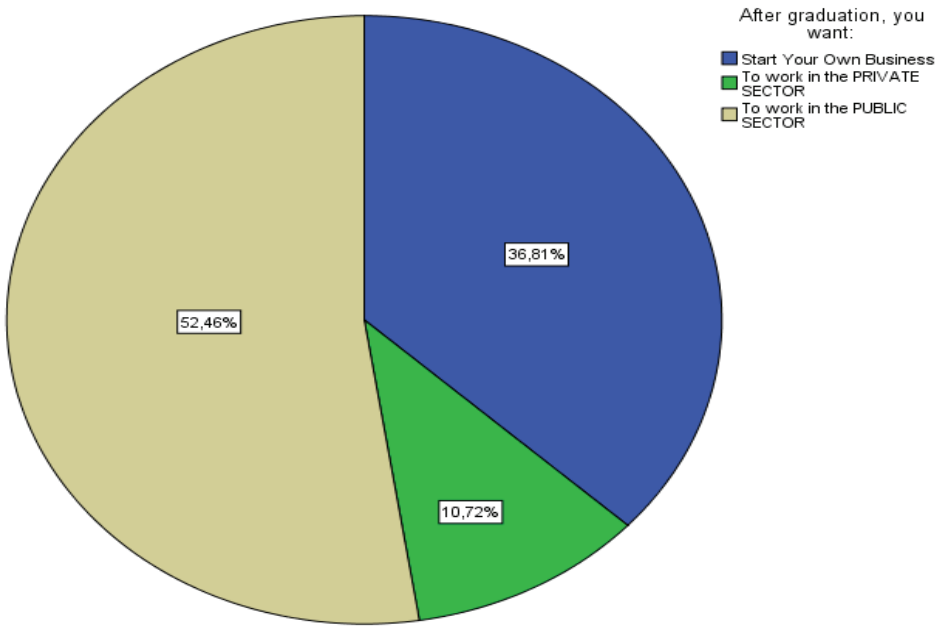


Figure 4: The desire of students after graduation

As expected most students after graduation want to work in the public sector. They do not have excessive desire to start their own business, and the private sector is seen as "exploiter of labor force".

5. Recommendations

If “Entrepreneurship education is crucial for boosting economic growth in Europe..” (Drake, 2014, p.6) then educational institutions and educational policy are of crucial importance. While Bosnia and Herzegovina has a number of strategic documents related to entrepreneurial education, the results of these documents are absent. In the analysis of existing plans and programs of economic faculties, the presence of entrepreneurial attitudes in defining learning outcomes, key competencies and objectives of curricula is visible. However, this research has shown that there is a gap between "what is on paper," and what we find in practice.

Therefore, it is necessary to find the right way to measure learning outcomes. The objectives of curricula post by SMART principle. Wake responsibility and universities from dormancy.

Recognize that entrepreneurial learning does not necessarily mean starting a business. Therefore, learning about entrepreneurship should be present on all higher education institutions (not only business schools and faculties of economics).

The results showed that there is a need for further education of teachers. In addition to teachers, classes must be maintained by prominent businessmen, leaders, managers. Higher education institutions must be open and accept their role and responsibility for economic development. They have to react to changes in the environment. They must be prepared for such changes. They have to be creators and drivers. Higher education institutions should have themselves become entrepreneurial institutions. So if a graduated student is the "finished product" of HEI, the question is: Which company can afford to launch its product on the market and loses any further interest?

Therefore, it is necessary to analyze the feedback on graduated students (but not "only on paper"). Feedback should be collected from three sources: the graduated student, the employer and the local community. This information should be good quality inputs for the creation, revision and implementation of plans and programs. It is a continuous process. And certain rules and procedures for adopting and revising the plans and programs need to simplify. Thanks to technology and the accelerated process of life, all things for which we previously took several months now are available to us in a few seconds. And that the HEI must adapt. We are swamped with paperwork and procedures, but without results. The focus should be on results.

6. Concluison and remarks

The transition process of BaH has produced significant changes in the design and creation of the private sector, and stressed the importance of development of entrepreneurship. Supporting the business development implies the development of entrepreneurial skills, knowledge and forces an entrepreneurial mindset (Sense of initiative and entrepreneurship). In this context, the role of higher education institutions is enormous. „Education in entrepreneurship has not only economic, but also social implications. To equip young people with skills, to educate them to be active in business in order to shape reality by using their own hands and brains, is essential to ensure the wealth and well-being of a society in the long run“ (Dabic and Pietrzykowski, 2011, p.6).

However, in Bosnia and Herzegovina, economic development, a huge number of unemployed and the dissatisfaction of employers with the level of acquired knowledge and skills of new employees, are a sign that the effects of entrepreneurship education are absent.

Results of these studies showed that when it comes to key competence of entrepreneurship the achieved average values of students of economics were not so different compared to students of other faculties. When it comes to the variable Entrepreneurial skills, a statistically significant difference exists only in relation to the students of the Biotechnical Faculty, while in relation to other, a statistically significant difference (although it was expected) does not exist. Since a huge difference in all dependent variables has been proved, when it comes to universities, namely much lower value was achieved by the students of the University of Bihac, we have tested only differences among the students of this university. The results of this test showed that in some variables (Entrepreneurial mind set, Core self-evaluation, and Entrepreneurial attitudes) significantly lower values were achieved for students of economics in relation to other faculties of the University of Bihac. For sure it is a huge issue for teachers of this faculty, students and the environment.

In BaH, Sense of initiative and entrepreneurship is most commonly associated with the term "starting a business." But, it is evident from the definition, given by the European Reference

Framework, that Sense of initiative and entrepreneurship covers a lot more than "starting a business". Due to the economic and social implications, entrepreneurship education in Bosnia and Herzegovina must be taken more seriously.

References

1. Dabic, M., Gonzalez-Loureiro, M. and U. Daim, T. (2015). Unraveling the attitudes on entrepreneurial universities: The case of Croatian and Spanish universities, *Technology in Society*, pp. 167-178.
2. Dabic, M. and Pietrzykowski, M. (2011). Can Entrepreneurship be brought from the 20th to the 21st century! A focus on Entrepreneurship Education through the FoSentHE 5e5 approach, pp. 5-14. in *Fostering Education in Entreprenurship*, ur. Dabic and Pietrzykowski.
3. Miljković Krečar, I. (2013). Predviđanje poduzetničkog ponašanja u okviru Bandurine teorije samoefikasnosti, doktorski rad, Sveučilište u Zagrebu, Filozofski fakultet.
4. Oberman Peterka, S., Singer, S. and Alpeza, M. (2012). Poduzetničko obrazovanje – nedostajuća komponenta u stvaranju multidisciplinarnog integriranog sveučilišta, *1. Znanstvena konferencija Ekonomsko obrazovanje – jučer, danas, sutra*, Zagreb, pp. 279-301.
5. Rebernik, M. and Širec, K. (2011) Building entrepreneurship careers via entrepreneurship education. The case of Slovenia, pp. 15-41 in *Fostering Education in Entreprenurship*, ur. Dabic and Pietrzykowski.
6. Sedlan-Kőnig, L. (2013). Poduzetnička kompetencija kao izvor konkurentnosti studenata na tržištu rada, *Ekonomski vjesnik*, God. XXVI, BR. 1/2013. pp. 57-70.
7. Sedlan-Kőnig, L.: Metodologija visokoškolskog obrazovanja u funkciji poticanja poduzetničkog ponašanja, doktorska disertacija, Sveučilište Josipa Jurja Strossmayera u Osijeku, Ekonomski fakultet u Osijeku, 2012.
8. Udovičić, M., Baždarić, K., Bilić - Zulle, L. and Petrovečki, M. (2007). Što trebamo znati kada izračunavamo koeficijent korelacije?, *Biochemia Medica*, Vol.17, No.1, pp. 10-15.
9. Vuković, K., Kedmenec, I., Horvat J. and Korent D. (2011). Uloga obrazovanja u stvaranju kulture poduzetnosti, *Učenje za poduzetništvo*, 1(1), pp. 297-310.
10. Strategija učenja o preduzetništvu u obrazovnim sistemima u Bosni i Hercegovini za period 2012-2015 sa Akcionim planom implementacije, Službeni novine Bosne i Hercegovine, broj 31/2012.
11. Key competences for lifelong learning — a european reference framework http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32006H0962 (accessed 25.02.2015.)
12. http://asteeproject.eu/assessment-tools/ireland (accessed 15.03.2015.)
13. How to assess and evaluate the influence of entrepreneurship education, http://archive.ja-ye.org/Download/jaye/ASTEE_REPORT.pdf (accessed 30.05.2015.)

OVERCOMING PSYCHOLOGICAL BARRIERS TO ENTREPRENEURSHIP IN A TRANSITION ECONOMY

Autor: Elena P. Ermolaeva, is Doctor of Psychology, Leading Research Officer of the Institute of Psychology of the Russian Academy of Sciences, Moscow, Russia
ermlen@bk.ru, ermlen@yandex.ru

Abstract

Overcoming psychological barriers to entrepreneurship in a transition economy.

European civilization has abandoned the estates of priority among the factors of choosing a life path. Russian society was until recently a typical class hierarchy. Due to the inertia of the installations, the need to be included in the new socio-economic relations by many people is not perceived until now. Psychological barriers are an awareness of the potential threat classes own business in the form of a syndrome of fear, of the unexpected outcome of their actions. This approach illustrates our two-dimensional model of a psychological barrier, involving the description and correction of each of the barriers depending on the ratio of two parameters: the fear of adoption of the new and fear of loss of the old. The first group includes a barrier receptivity to new barrier and personal initiative, the specifics of which is the predominance of "fear of the adoption of new." The second group forms barriers regarding the risks and false attitudes, which are described as forms of "fear of loss of the old." And, finally, the third group consists of the psychological barriers that combine in different proportions. This barrier, the containment barrier of communication and barrier of the achievement.

Universal mechanism of action on any barrier - "creative destruction", in which the element of "destruction" is aimed at "the fear of the loss of the old" and the element of "creativity" - removes "fear of the adoption of new." But "creative destruction" is a personal trait that is inherent in everyone. In other cases, to influence the barriers, the psychologist must use special methods of their removal which are aimed at both components of the "fear syndrome". Depending on which of these elements prevails, methods of influence on psychological barriers can be antagonistic (when the removal of the barrier is achieved by its destruction) and non-adversarial methods of overcoming the psychological barriers through their neutralization or adaptation.

All methods of removing psychological barriers, in essence, aims to move "personal security barrier" in the direction of allowing a person to act fearlessly in the wider area. Safety zone behavior is organized in such a way that when meeting with a danger, people are not evading the risk, but on the contrary, trying, in a difficult situation, to achieve the goal. The willingness of man to choose a certain level of risk depends not only on its individual characteristics, but also on various situational factors arising from the real operation conditions.

Keywords: *psychological barriers, psychological support; professional identity, Globalization, anti-globalism*

Due to the inertia of the installations that are incorporated in a new socio-economic relations, many professionals and entrepreneurs in Russia were not perceived until now. One of the most painful problems in Russian society is the psychological rejection of globalization.

Globalization is a general process that develops by natural laws; it is a reality of modern professional and social activity of the subject. In developed countries, psychological globalization occurs in conjunction with the development of communication, of movement and universal technologies. But if the process is information-technological globalization artificially delayed, interrupted, or Vice versa, boosted from a pragmatic, political, corporate considerations, he inevitably diverges in time with psychological globalization, which can either be ahead or behind and counteract. We have antiglobalists all over the world, mainly for economic and political reasons. But we have, in addition to historical, economic and political roots in the ideology of globalism, high proportion of psychological factors.

Globalization is a rational model of the world, suggesting the presence of cosmopolitan ability of consciousness to rise above national or professional interests. It appeals to the priority of common goals and values over narrow national and group (corporate, political party, etc.), is associated with positive emotional concepts of tolerance, common good. The anti-globalism as irrational world model, by contrast, is focused on priority goals and values of professional or political communities; it is associated with negative notions of national self-interest, etc. In practice, semantic transformation occurs, and sometimes inversion of the goals and motives of these movements. Anti-globalism is often associated with higher human values, not economic and not pragmatic: ecology, humanism, freedom of choice of their own way. Globalization, being hard pragmatic model, inevitably tightens capital and creative human resources in the global economy to the detriment of other regions. Antiglobalists – retaliatory compensatory response to the contradictions of interests of global peace and national, professional and group interests.

Economists are pragmatists, assessing the globalization of prospects of the Russian economy originate from the design criterion of economic efficiency, without taking into account social impacts and losses from psychological resistance of professionals and entrepreneurs, inadequate to the new conditions. Ordinary professional global values at best are indifferent and at worst unacceptable; globalization coincided with a decline in living standards and the loss of a familiar work, and these relationships tend to gain a foothold in the consciousness as causal. Psychological barriers is the realization of human potential that threatens innovations, to continue professional career, and especially for their own business. We consider psychological barriers as a syndrome of fear of the unexpected outcome of their actions in a transition economy. This approach illustrates our two-dimensional model of a psychological barrier, involving the description and correction of each of the barriers depending on the ratio of two parameters: the fear of the adoption of the new and fear of loss of the old. The first group includes a barrier receptivity to new barrier and personal initiative, the specifics of which is the predominance of "fear of the adoption of new." The second group is formed by the barriers of risk and false attitudes, which are described as forms of "fear of loss of the old." And, finally, the third group consists of the psychological barriers that combine in different proportions. The barriers of autonomy, communication and achievement.

Among the real problems of the transition economy the one stands out as the most painful: the problem of tolerance, to the professionals "weakest link": the disabled, working pensioners, people with disabilities.

In the process of life and work, professional enterprise information about the world that can change their view of themselves, the profession and social environment. This leads to internal crises that destroy the old relationship and forcing you to find new forms of personal-professional-social conformity, more adequate to the changed surroundings and within professional circumstances. Particularly important challenges for the acting professional, and for tolerance to the society and

immediate environment can be: midlife crisis is a sudden, partial or complete, loss of earning capacity as a result of illness or accident, the transition to another organization, retirement.

In the psychology of work one of the lines of moving from the science to the practice of psychology – social psychology professional which links together the person, the profession and society (Ermolaeva, 2009). And cement these relationships as professional identity, in which the focused projection of a professional as a person, as a representative of the profession and as a member of society. In the same context, professional identity is defined as the psychological characterization of the current compliance and sustainable identity with the profession, and professional marginalism – both behavioral and conceptual antagonist of professional identity and a specific strategy individually viable, but socially dangerous implement professional in adverse conditions (Ermolaeva, 2008).
In conditions of frequent global change and Russian instability, professional identity becomes not a one-off and cyclical process in which the basic mechanism is the professional identification (during the primary determination) and change of identity (for subsequent stages), and achieved at each stage of the level and structure of professional identity – are a relevant indicator of professional competence. At different stages professiogenesis in the model of a professional in the system of relations between person–profession–society to the fore: that of motivational and personality, competence, social and moral traits. The first cycle of professional self-determination begins with the lowest stage of professional interest (I want), passes through several stages of testing their capabilities (stage I) and completes the highest stage of gaining professional socio-moral self-consciousness (which I have). When the secondary (and subsequent) cycles of self-determination in the case of forced or arbitrary change of profession, the man returns from the position "I" to one of the downstream stages, "I want" – in a random, "I can" – with a forced job change. Of the model follows the main requirement is the need of psychological support professionals throughout life's journey.

If the degree of variability and uncertainty of social life of a professional does not exceed the threshold of its individual endurance, is the problem is solved with the involvement of already existing practices of professional training: he's in this system as it is in thumb groove template and uses strategies to adapt almost automatically. However, the existing network of training does not solve permanent problems associated with the dynamics of professions, when many of them die, others dramatically transformed, and still others arise again. The current system does not keep pace with the fast changing socio-economic conditions of work and life professionals; does not track the dynamics of gender and age transformations of the individual professional; does not ensure timely correction of value orientations of personality and life priorities imposed by the restructuring of the public consciousness and the pace of globalization. If it is too fast and unbalanced by time and direction of socio-economic changes, a professionals, as a rule, are no longer able to cope on their own.

In a situation concurrentie for the workplace often occur destructive actions aimed at elimination of the competent employees or business partners. Such actions are qualified as mobbing, a characteristic which is not frontal, but indirectly destroying the competition through the accusation, distrust and denigration of skills, the creation of negative motivation. The most vulnerable victims in similar circumstances, become competent, but psychologically weak, uncommunicative, or socially vulnerable employees with certain characteristics or physical disabilities. Without tolerance of other employees, they run the risk of creating psychological isolation, unjustly losing not only a job but also a beloved profession. However, others who are not themselves subjected to mobbing, tend to blame it arises out of the victims themselves.

Available the following General principles of psychological support professionals:

- Addition of common adaptation techniques personalized creative techniques that are based on the knowledge of regularities of the dynamics of the relationship between a particular man his place in the profession and society.
- Building skills to defend their case, to accept the scope of their work not only as a means of income, but also as their own fate, the removal of the complex of powerlessness to change things for the better.
- Overcoming internal complexes of superiority or inferiority and the elimination of psychological barriers in moving the service, especially when it seems that bypassing him less worthy.
- Overcoming problems associated with mobbing, discrimination in the workplace, among which are gender, age, social and personal aspects. Psychological support is here addressed not only by the victims of mobbing to reduce its emotional impact and the formation of psychological stability, but also the organizers and participants of harassment in order to improve the General level of tolerance in the workplace.
- Consideration of the crises of the professional career of the individual as incentives for the transformation of value orientations and psychological correction of personal relations with the profession and society.

In practice we apply, to different groups of professionals, special strategies of psychological support:

- For successful professionals – psychological support aimed at raising the status and advancing in their careers, usually carried out by using various techniques of coaching.
- To be successful in the profession, is undergoing a personal crisis (e.g., midlife crisis, or the loss of a spouse) – crisis support in the form of psychotherapy or life professional attitudes, mindset, aimed at increasing confidence.
- For professionals-and the losers facing a crisis in his professional career, but committed to his profession, – the strategy of expansion of subjective professional space of possible fulfillment.
- For professionals, tend to change their profession, aid in decision making and secondary vocational guidance.
- Senior professionals at the final stage of career and psychological training to agreement on part-time employment and transition to retirement.
- For women who are forced to interrupt his career in the birth of children – psychological support of professional motivation, periodic testing and training of professional competences.
- For professionals of all ages and genders in situations of forced retirement from a successful business or other prestigious activities, for reasons not related to the quality of their work (for example, closing or bankruptcy of the institution, the care of children or sick family members), – coping strategies and rationalize the situation.

For integration in the global world is preferable to the possession of a profession, is invariant to cultural and national features, but not burdened narrow professional specialization and mentality. The ability to weigh the benefits and costs of achieving professional claims, the ability of a critical view on their profession faster to pass the barrier of misunderstanding and rejection of globalization.

In such situations often arise the problem of evaluation of the career possibilities and help to overcome psychological barriers. New professional identity in the course of overcoming psychological barriers is more painful when forced to change professions than voluntary. Universal mechanism of action on any barrier - "creative destruction", in which the element of

"destruction" aimed at "the fear of the loss of the old" and the element of "creativity" - removes "fear of the adoption of new." But "creative destruction" is a personal trait that is inherent in everyone. In other cases, to influence the barriers, the psychologist must use special methods of their removal which are aimed at both components of the "fear syndrome". Depending on which of these elements prevails, methods of influence on psychological barriers can be antagonistic (when the removal of the barrier is achieved by its destruction) and non-adversarial methods of overcoming the psychological barriers through their neutralization or adaptation.

All methods of removing psychological barriers, in essence, aims to move "personal security barrier" in the direction of allowing a person to act fearlessly in the wider area. Within the safety zone behavior is organized in such a way that when meeting with a danger of people not seeking to evade the risk, but on the contrary, behaves, and in a difficult situation to achieve the goal. The willingness of man to choose a certain level of risk depends not only on its individual characteristics, but also on various situational factors arising from the real operation conditions. For us important regularities of interaction of different psychological barriers between themselves: 1) the higher motivation to achieve the goal, the lower its willingness to take risks; 2) people motivated to achieve the goal and having hope for success, tend to avoid high-risk areas; 3) the higher the confidence is, the more acceptable level of risk taking. To move a personal security barrier allow: a) increasing the awareness of the activities; (b) reduce the degree of uncertainty; c) the accumulation of positive experience of solving problems in high-risk situations; (d) increase the role of competitive and creative components in achieving the goal. These areas may be concrete work on overcoming psychological barriers in the transition economy (Ermolaeva, 2008)

Thus, specific ways of overcoming the psychological barriers can be used in two directions: the removal (elimination or reduction) of a psychological barrier, based on methods of direct or indirect impacts to the barrier; and neutralizing the psychological barrier without real resolve.

Lack of professional identity puts him outside the socio-professional relationship in which he could adequately fulfill their potential. And then the professional becomes marginal, using his official position to perform its respective positions of the professional role, and in order of the shadow self or enrichment. Professional marginalism became a reality of our time. And this is evident not only in individual governmental and commercial structures, but also in strengthening the formal approach to their professional duties in occupations that bear directly on the welfare of others is education, medicine, the judicial system, etc. The mass of the same phenomena reflected less tolerant society that failed to adjust their relationships with professionals. The company does not receive good professional and professional, without feeling its significance for society, is less and less committed to full self-realization.

The second important point concerns ways to overcome this conflict. Identity crisis, accompanied by the awareness of their limitations or originality of the self, may serve as a factor in its development, when the conflict is overcome not by the individual devices to negative socio-economic environment conditions, and by adjusting the internal settings and active changes in the external environment.

Thus, psychological support is essential for the professional not only for the preservation of identity, but also to expand the focus, going beyond the usual limits of life, the formation of a global mindset and tolerance to themselves and to the environment. All these problems do not lie in the sphere of the disposition of the "young–experienced–older–healthy–persons with disabilities", and in the sphere of identification of a person with the profession of accepting or not accepting it as life values. For established professionals, operating in difficult conditions of implementation – is the search for and formation of individual and social resources adequacy at all stages of

professional life. For society as the whole – a reserve of tolerance for non-standard forms of manifestation of professionalism.

(The study was performed in the framework of the project of the Russian humanitarian scientific Fund, grant No. 13-06-00683).

Literature

1. Ермолаева Е.П. (2008). *Психология социальной реализации профессионала*. Москва: Изд-во «Институт психологии РАН». (Ermolaeva E.P. (2008). *Psyhologia socialnoi realizacii professionala*. Moscow)

2. Ermolaeva E.P. (2009). Social Realization of the Professional as a Phenomenon of the Reality and Scientific Category. - *The Humanities and Social Studies in the Far East, Khabarovsk.* №4 (24). p.p. 17-25.

TOWARDS APPLYING THE PROCESS-BASED APPROACH OF THE BUSINESS MANAGEMENT FOR HOLISTIC MODELS OF SOCIAL ENTERPRISES

Małgorzata Kurleto, DPh.

Jagiellonian University in Cracow, Department of Management in Tourism

e-mail: m.kurleto@uj.edu.pl

Abstract

This study is trying to show the possibility of using process approach for social enterprise. The analysis discuss the chance of application of selected business process models which are based on the relationship between inputs and outputs, for functioning forms of social enterprises such as: social cooperatives or other enterprises undertaking public services and some types of hybrid projects which linked business activity with a social mission. The study is focused on integrated and holistic models of social enterprises (including social objectives based on a positive relationship with the environment). The paper is trying to show factors determining the possibility of application of business process models for social enterprises. First of all the study is interested in using the system and process approach for social entrepreneurship.

Keywords: *business process modelling approach, business process models, social enterprise*

Introduction

The process approach is now considered to be one of the most important orientations in the business management. It seems that the process management, which usually focuses on the optimization of business processes, can be used as well in social enterprises. Process approach is based on the assumption the process management, which views the activities of an organization as a set of processes undertaken to advance organizational goals, is the natural determinant for achieving increased efficiency of modern organizations (Jokiel, 2009). This paper aims to draw attention to the fact that the business process models can be used to build models of social enterprises. It should be remained that social purpose business ventures are hybrid enterprises straddling the boundary between the for-profit business world and social mission-driven public and non-profit organizations (Hockerts, 2006, p. 145). It should be also noted that social enterprise differs from the traditional understanding of the non-profit organization in terms of strategy, structure, norms, values, and represents a radical innovation in the non-profit sector (Dart, 2004, p. 411). This study is trying to demonstrate that the main objectives of the process approach to commercial business models are allowed to achieve strategic effect. This statement could be the starting point for the design and management of social enterprises, which are able to respond to the new reality, which is characterized by intense competition and changing expectations of customers (beneficiaries), which leads to success (Seelos, 2010).

The adaptation of business process models for the social enterprises is difficult due to its more dynamic, holistic, uniqueness and is depending on a number of variables. This analysis, that focuses on the integrated holistic model of social enterprise, also not forgetting the innovative approach to social entrepreneurship. The study discusses the issues of the impact of business process management on the financing of social enterprises. The analysis is trying to show, that the process approach comes from the concept of the system approach. In this way the study is going to demonstrate specific consequences of system and process approach which undertaking social enterprises – to be successful (Wronka, 2009).

The chances of using business process modelling for social enterprises

SO 9001 2015 section 0.3 expects organizations to adopt a process approach and section 5.1.1 asks top management to exercise leadership by promoting an awareness of this approach (ISO's process approach, 2015). It could be done through Business Process Management which concerns a business as a collection of processes. Mair & Mart (2006) stated that process involving the innovative use and combination of resources to pursue opportunities to catalyse social change and/or address social needs. A clear correlation between processes and the vision support plan strategies build a business structure and use sufficient resources that require achieving success in the long run (Tregear, 2010). The general management system focuses on direct solutions referring to financial measurements of enterprise. Process based management applies these financial measurements but in operational way considering how each performance affect the enterprise as results of different processes (Badreddine et. al., 2009).

Nowadays, to manage any business from a process based perspective, majority of enterprises (including social enterprises) have to understand what defines the process and what actions make it up. Entrepreneurship is the process which includes the identification of chances (and ideas) and runs through a phase identification, development, evaluation and implementation or rejection of the opportunity. The process support managerial sectors and provide economic (and social in social enterprises) value from input to successful output. According to Process-based Management System for ISO 9001:2008 to evaluate the sequence of process, can be used measurement which shows results of process performance (Rosam, Peddle, 2009).

In the management process of resources is possible to determine of entrepreneurship at the start point. Social entrepreneurship combines the gap between business and charity, philanthropy and social help (Defourny et.al. 2013). This is the core to distinguish social entrepreneurs from business entrepreneurs even from socially responsible businesses (Bednarczyk and Kurleto, 2013). In a social enterprise mission is fundamental. This mission cannot be reduced to creating private benefits for individuals. Making a profit or serving the desires of customers/ beneficiaries may be part of the model.

According to G. Dees (1998) “Profit is not the gauge of value creation; nor is customer satisfaction; social impact is the gauge”. Social entrepreneurs look for a long-term social return on investment **(**Dees, 1998).

Social entrepreneurship is the process of identifying and implementing ingenious ability to create social value. Social enterprise to generate social value must first generate commercial value – goods or services that can be sold on the market. Using knowledge of the process approach of business enterprises for social enterprise require appropriate models (Kurleto, 2013). Usually social enterprises possess business processes of diverse nature. A common modelling approach for their description does not take into consideration the special characteristics of each process. As a result, the produced models may not all harmonize with the respective actual processes and hence cause inflexibility in their automated execution. It follows that a social enterprise should support multiple social business process models in a way that will enable their efficient intercommunication (Alexopoulou, et. al., 2008). Such capability will ensure a holistic approach in modelling the social enterprise functionality, which have to lead to a much more efficient operation of the enterprise (Alexopoulou, et. al., 2008).

Challenges associated with the possibilities of application of system approach for the social enterprise

Coordination of operational and strategic transformation of social enterprise is a huge challenge not only for the concept of the process, which offers a wide variety of tools. The most important is the system approach and holistic thinking. The concept of system approach has three main sets of tools: mapping, modelling and optimization (Ramo, Clair, 1998). Each of them brings a certain set of instruments. An important factor determining the effectiveness of process management is the method of mapping processes. This key to success is also basic way of process of the social enterprise model. Social entrepreneur should like business manager produce a map of the relationship but also at the level of the contact phases and individual activities within them. Only when we have a full picture (maps all processes and a detailed map of connections/relationships), we can make a comprehensive diagnosis of the various aspects of the mechanisms and to determine their interrelationships. It is also important to adjust the process description language called – Social enterprises process maturity level (Yongchareon, 2015).

One of the most demanding tools for optimizing the process approach for social enterprise is the analysis value. It is ordered and demanding reliable information research method, design and analytical. Value analysis is a tool, which can create a positive synergy, which is a positive system of relationships with the environment. With accurate and reliable source of information, social entrepreneur can move the centre of gravity of operational thinking to strategic thinking. The system of self-regulation mechanism should be introduced, allowing the social business modelling such that as soon as possible to respond to the new challenges of the environment.

Business process management (BPM) as a concept system which is treated like a way of looking at and then controlling the processes that are present in an social enterprise. “It is an

effective methodology to use in times of crisis to make certain that the processes are efficient and effective (*What is Business Process Management?* 2010).

BPM aims to completely integrate all of the affected applications within an enterprise, monitoring processes and assembling all required information. Social enterprise unit can start their own social goals. This can apply that social enterprise introduces comprehensive strategy to process management.

The desirability of a system approach involves a holistic treatment of social enterprise as a whole. Points to the desirability of social enterprise with partners, and most importantly, achieve their effects by recognizing the strategy. The social enterprise system is built with the remaining elements interact with each other and pursuing the objectives set out the needs of the market environment, which is a part of the social enterprise strategy. The market environment is a marketing term and refers to factors and forces that affect a firm's ability to build and maintain successful relationships with customers. Three levels of the environment are: Micro (internal) environment – small forces within the company that affect its ability to serve its customers. Meso environment – the industry in which a company operates and the industry's market(s). Macro (national) environment – larger societal forces that affect the microenvironment. (Kotler and Gary, 2006). Others social needs there are also recognizing on the analysis based on information from social environment.

The system approach to management of social enterprise elements originates from input. These elements are the necessary information which includes the needs of customers, clients/ beneficiaries. The other societal stakeholders typically include consumers, employees, sponsors, volunteers, founders (also other persons responsible for potential of development capital including income derived in the form of grants, donations or business) (*Organizacja 2.0.* 2014).

Contributions are economic, social and environmental and in addition social enterprises obtains information on legal regulations, natural resources used in business and the opportunities for the integration of partners to cooperate in the implementation of social mission. Efficient and effective use of proceeds from the surrounding elements is necessary to fulfil a social mission. Changing one of the components of environmental conditions can be cause further changes in its functioning. System allows that social enterprise can create a shared vision for the future as well as can improve a comprehensive approach to achieving the social goals (*Organizacja 2.0.* 2014).

The adoption of agile business process modelling approaches can design of the corresponding process model for social enterprises.

Business process modelling is the activity of representing processes of commercial enterprise. Enterprise modelling deals with the process approach and improving its performance through creation of business process models. This includes creating of models which are usually more volatile than others models (Lillehagen and Krogstie, 2008).

The entrepreneurial process begins with the first opportunity. The next important elements of the entrepreneurial process are resources and the entrepreneurial team. In the modern business era the most important value of company are often called – core values.

Core values are the basis upon which the members of a company make decisions, plan strategies, and interact with each other and their stakeholders (Dyla et.al. 2013). Core values reflect in particularly what is important to social enterprise. It should be emphasised that in the modern business era the most important value of company is core values, which is linked with business

process modelling and have multi-dimensional character (treatment of entrepreneurship as a process dependent on many factors individual, organizational and external).

Modern enterprises operate in highly turbulent environments and they need to be able to efficiently respond to change by adjusting their processes. There are many possibilities for the application of agile business process models for the social enterprises. Such process approaches would enable the creation of agile models, which can be efficiently modified.

It seems that engaging organizational theory can be useful in searching of the theoretical basis of social enterprise. The idea of business process in terms of the model is based on the perception and uses entrepreneurial opportunities (Chodyński, 2008). The social business process management should identify entrepreneurial opportunities, refine the concept, evaluate and acquire the necessary resources, and implement them.

The result of this process can be: functioning enterprise, the creation of new products, services, processes, profit and personal gain, employment, assets, and income growth, but also the failure or loss.

It should be emphasized that in the integrated model of social enterprise there are a number of factors influencing the entrepreneurial process. Model of Antoszkiewicz, recognizes the leading role of entrepreneurship, which has an impact on the knowledge of the possibility of formal, organizational, technical and socio-psychological (Antoszkiewicz, 2002). Entrepreneurship in this model comes from the idea (including: inspiration, vision, creativity) that meets in action (including risk, skills and experience also using the notion of the triple bottom line) and seeks to the outcome. This model can be easy adapted to social enterprise because social enterprise can be treated as a process which is the result of specific interactions between organizational factors, attributes of people and some kind stimulant, which is aimed at the achievement of the social goals. Bratnicki Model of 4 E, which includes four elements: enterprise, entrepreneurship, environment and effectiveness is also possible to adjust for social enterprises (Bratnicki, 2002).

This model (4E) shows that the efficiency and results of entrepreneurial social action aimed at meeting the social mission of social enterprise and its resources management and a range of influences entrepreneurial environment in the entrepreneurial process counts the creation/recognition of the occasion.

Analyses of possibility the adoption of the integrated business models for social enterprises are seeking to exploit the benefits of the model Morris, Lewis and Sexton (1994). Mentioned authors attempt approaches to entrepreneurship proposed integrated business model in terms of the process based on the relationship between inputs and outputs of the process (Morris et.al., 1994). Entrepreneurship, according to these authors, can be conceptualized as involving inputs and outputs. It is defined by activities such as starting new ventures, innovating, pursuing opportunities, taking risks and managing and creating value. Using the input-output perspective, entrepreneurship uses opportunity, proactive individuals, an organization, risks, resources and innovation as inputs toward the outcomes of a new enterprise, value, products, profits and growth. Entrepreneurship also involves the attitudinal factor of willingness and the behavioural factor of process activities. An integrative model of entrepreneurship is presented that incorporates this input-output perspective with the notion of entrepreneurial intensity. Similarly, the input-output perspective is descriptive of entrepreneurship in not-for-profit organizations, with the outputs taking on slightly different interpretations, such as the creation of social value or growth measured in number of volunteers or money of contributions (Morris et.al., 1994).

Aspect of the inputs and outputs of the process is also part of the definition in qualitative terminology standard BS EN ISO 9000–2000 (quality management systems – Fundamentals and

vocabulary v. 3.4.1. 2000) in which the process is interpreted as “a set of interrelated activities or other factors influence that transform inputs into outputs”.

It should be noted that in social enterprises entry criteria identify what needs to be true in order for the process to start. Process flow will presume a certain set of rules (requirements). As processes get more complex, it often makes sense to break the business rules out separately so they can be more easily managed as they change. The output identified of all the requirements were set for its entry and identify what needs to be true when the process ends. Outputs in social enterprises identify tangible work items generated through the course of the business process (Balabko, 2004).

In the integrated model of social enterprise has been noted a number of factors that influence the entrepreneurial process. Entrepreneurial activity depends not only on internal factors but also on external factors. Many barriers that exist in the third sector should be taken into account in the integrated model of social enterprise. It is important in the process to know how entrepreneurs can identify new business opportunities and evaluate their potential and their risks.

Model created by D. Saras Sarasvathy (2008) is based on the concept of effectuation as a way that expert entrepreneurs sometimes think. Entrepreneurship is the process of creating something new with value, which is used in the process of identifying business opportunities and creating a new project. According to this author (Sarasvathy, 2001) “All entrepreneurs begin with three categories of means: (1) Who they are – their traits, tastes and abilities; (2) What they know – their education, training, expertise, and experience; and, (3) Whom they know – their social and professional networks. Using these means, the entrepreneurs begin to imagine and implement possible effects that can be created with them. Unlike causal reasoning that comes to life through careful planning and subsequent execution and effectual reasoning”. Through their actions, the effectual entrepreneurs’ set of means and consequently the set of possible effects into clearly achievable and desirable goals (ibidem). It seems that should be noted attractiveness of Sarasvathy’s model for social enterprise. According to her key principle of effectual reasoning, enterprises should be focuses on building partnerships rather than on doing a systematic competitive analysis.

Although the interpretation of causality Saras D. Sarasvathy has been criticized but her model seems to be practically very interesting from the point of view of achieving its objectives by social enterprises. It is hard to believe that Sarasvathy was preparing this model for business companies because this model is referring to use in the field of social entrepreneurship.

It seems that nowadays one of the most important models of social entrepreneurship based on process approach was created by Goldstein, Hazy and Silberstang (2009). According to these authors social entrepreneurship is created in the process of optimizing a system consisting of tangible and intangible factors using practical reasons to guide the ultimate goal of meeting social needs. Entrepreneurs are driven to the visions and motivations from different sources and opportunities, as well as functioning institutions and norms for mutual adjustment and also profitability, which is focused on the end goal resulting from aid motivation. In the opinion of, Goldstein, Hazy and Silberstang (2009) to make the model more complete: subjective visions that may affect the choice and acceptance for the ultimate purpose, (targeted by guiding motivation), and the available resources and capabilities (which can also stimulate the vision of entrepreneurs). The process approach in this model makes possible to emphasize its hybrid nature characterized by complexity and significant energy requirements of connecting the necessary ingredients of a social enterprise.

The concept of treating the social enterprises as a system is introduced Balabko, Wegmann, Ruppen and Clément (2004). These authors emphasised, that Business Process Management System anticipates commissioning of processes that are capable of performing well diversified business

process models for use by social enterprises. To create an agile social business process model – the selected modelling approach should be in harmonization with the nature of the actual business process (Alexopoulou et.al. 2008). Thus, it is crucial to adopt for social enterprise the correct approach of a business process models. The adaptation is requiring capability that prompts for a holistic approach in social entrepreneurship.

Social enterprises demand, comprehensive business and market planning, including process approach is the best way to achieve societal values.

Summary

This analysis shows that system and process approach which apply to business process models also refer to social enterprises to reach social goals. The ultimate goal of social enterprise is to achieve sustainable development: generate their own revenues and profits also maintaining focus on their social mission and objectives. It is important to achieve these goals in an innovative way, instead of relying solely on grants and donations. The concept of system approach for social enterprises include: mapping, modelling and optimization. It seems that in particularly the method of mapping processes is the key to success of the social enterprise model. The most popular business process model, which can be used to social enterprise is the model of input – output.

The process model of social enterprise includes not only the internal processes, but also external processes (Contain the external environment, which now becomes an integral part of the structure of the social enterprises process). This concept emphasised greater importance in social enterprises for the external environment and for creating partnerships.

Develop an effort to demonstrate the ability to process models used for social enterprises can only provide an introduction to these important issues and require further research.

It should be noted there is the possibility of using business process management for social enterprises. Modelling framework can lead to achieving integration of different models of business processes of social enterprise. Nowadays, interest in business process of social enterprise occurs due to the added value that they generate and thus the value that the customer/ beneficent can get.

The concept comes from system and process approach to management. Social entrepreneurs who seek to change the model of transformation should look closer for system approach using observations of ideas related to innovation, adaptation to local conditions, leading to beneficial effects also giving rise to solutions of their problems. The system and process approach should introduced self-regulation mechanism, which allows the business modelling that as soon as possible can respond to the new challenges of the social environment.

It seems that the use of process models in the management of social enterprise can be appropriate path to its success.

Literature

1. Alexopoulou N., Kanellis P., Nikolaidou M., Martakos D. (2008). *A Holistic Approach for Enterprise Agility*. Handbook of Research On Enterprise Systems, Idea Group Inc.
2. Antoszkiewicz, J. (2002). *Przedsiębiorczość w nowej roli.* In: *Przedsiębiorczość i rozwój małych i średnich przedsiębiorstw w XXI wieku,* B. Piasecki (ed.), Wydawnictwo UŁ, Łódź.
3. Balabko P., Wegmann A., Ruppen A. & Clément N. (2004). *The Value of Roles in Modelling Business Processes*, BPMDS'04. Riga, Latvia.
4. Badreddine, A., Romdhane, T.B. & Amor N. B. (2009). *A new process-based approach for implementing an integrated management system: quality, security, environment.* Proceedings of the International Multi Conference of Engineers and Computer Scientists, Vol. II, Hong Kong.
5. Bednarczyk, M., Kurleto M. (2013). *Od strategicznej filantropii przedsiębiorstw do przedsiębiorczości społeczne*j. In: *Społeczna odpowiedzialność przedsiębiorstw. Księga jubileuszowa dla Profesora Czesława Sikorskiego,* B. Kaczmarek (ed.), Łódź.
6. Bratnicki, M. (2002). *Przedsiębiorczość i przedsiębiorcy współczesnych organizacji*, Wydawnictwo AE w Katowicach, Katowice.
7. Chodyński, A. (2008). *Przedsiębiorczość i innowacyjność a kompetencje-aspekty strategiczne*, Zeszyty Naukowe Wyższej Szkoły Humanitas 2.
8. Dart, R. (2004). The legitimacy of social enterprise. *Nonprofit Management& Leadership*, 14(4), p. 411.
9. Dees, G. J. (1998). *The Meaning of Entrepreneurship*. Stanford University.
10. Defourny, J., Nyssens, M, Thys S. & Xhauflair, V. (2013). *Beyond Philanthropy: When Philanthropy Becomes Social Entrepreneurship*, http://labos.ulg.ac.be/philanthropie/wp-content/uploads/sites/3/2014/04/Beyond-Philanthropy-JD.MN_.ST_.VX_.pdf (accessed 20.03.2015).
11. Dyla S., Szeptuch A. & Zwolińska D. (2013). Badanie procesowych, kulturowych i strukturalnych uwarunkowań zarządzania strategicznego w organizacjach, *Zarządzanie i Finanse*, R. 11, nr 1, cz. 1, pp. 143–158.
12. Goldstein, J. K., Hazy, J. & Silberstang, J.,2010, A Complexity Science Model of Social Innovation in Social Enterprise. *Journal of Social Entrepreneurship*, 1(1), pp. 101–125.
13. Hockerts K. (2006). *Entrepreneurial Opportunity in Social Purpose Business Ventures*. In: Mair J., Robinson J. & Hockerts K. (Eds.), Social Entrepreneurship. Basingstoke: Palgrave Macmillan.
14. *ISO's process approach* (2015), http://www.praxiom.com/process-approach.htm (accessed 20.03.2015).
15. Jokiel G. (2009). *Podejście procesowe w zarządzaniu – geneza i kierunki rozwoju koncepcji*. In: *Podejście procesowe w organizacjach*, Nowosielski S. (ed.). WUE we Wrocławiu, Wrocław.
16. Kotler, P. & Gary A. (2006). *Principles of Marketing (Version 12/E)*. Pearson Education Inc. New Jersey.
17. Kurleto M. (2013). Possibility of Using in Poland Contemporary Solutions Concerning Philanthropy and Social Entrepreneurship Adopted in the U.S *Global Management Journal*, Vol. 5, No 1–2.
18. Lillehagen F., Krogstie J. (2008). *Active Knowledge Modelling of Enterprises*. Springer, 2008.
19. Mair, J., Mart I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight, *Journal of World Business.* 41 (1).
20. Morris, M. H., Lewis, P., & Sexton, D. L. (1994). Reconceptualising entrepreneurship: An input-output perspective. *Advanced Management Journal*, 9 (Winter), pp. 21-31

21. *Organizacja 2.0 Jak zarządzać organizacją pozarządową prowadzącą działalność gospodarczą?* (2014) eds. Galka E., Stowarzyszenie Centrum Promocji i Rozwoju Inicjatyw Obywatelskich, PISOP.
22. Ramo, S., St Clair R. K. (1998). *The Systems Approach: Fresh Solutions to Complex Problems Through Combining Science and Practical Common Sense*. KNI, Inc.
23. Rosam, I., Peddle, R. (2009). *Understanding ISO 9001:2008 and Process-based Management Systems*, British Standards Institute, London.
24. Seelos, Ch. (2010). *Theorizing and Strategizing with Models: Generative Models of Social Enterprises*, IESE Business School Working Paper no. 857, Barcelona.
25. Sarasvathy, S. D. (2001). *What makes entrepreneurs entrepreneurial?* University of Virginia, http://www.effectuation.org/sites/default/files/documents/what-makes-entrepreneurs-entrepreneurial-sarasvathy.pdf (accessed 20.03.2015).
26. Sarasvathy, S. D. (2008). *Effectuation: Elements of Entrepreneurial Expertise*, Edward Elgar Publishing Inc.
27. Tregear, R. (2010), *Why Process-Based Management?* Australia: Leonardo Consulting, http://www.buildingbusinesscapability.com/agenda/sydney _details/1362/
28. *What is Business Process Management?* (2010). http://www.aiim.org/What-is-BPM-Business-Process-Management (accessed 20.03.2015).
29. *What is Enterprise Content Management (ECM).* (2010). AIIM., Association for Information and Image Management. September 2010.
30. Yongchareon, S., (2015) A View Framework for Modelling and Change Validation of Artefact Centric Inter-Organizational Business Processes. *Information Systems,* 47, pp.51–81.
31. Wronka M. (2009). Identification of critical success factors of social enterprises. *Management*, 13 (1), pp. 113–128.

THE GENDER EARNINGS GAP IN JORDAN

Usamah Alfarhan[282]

Abstract

This paper addresses the gender earnings gap in Jordan's private sector, controlling for both genders' participation decisions. It is shown that the earnings gap is entirely explained by gender differentials in estimated coefficients, and that gender differentials in participation affect women's relative earnings positively.

Keywords: *Gender, Earnings, Discrimination, Jordan.*

[282] Assistant professor of economics at Sultan Qaboos University, P.O. Box 20, 123 Muscat, Oman

Introduction

Ratification of international anti-discrimination conventions, although legally binding, is not sufficient to avert gender earnings differentials. Jordan provides a factual example, given its' early commitment to the issue of gender equity, by ensuring equal pay for equal work in its constitution, and ratifying several international conventions on equal remuneration and discrimination, as well as the formation of the National Steering Committee on Pay Equity (NSCPE) in 2011.

Despite Jordan's efforts to achieve pay equity from early on, there are persistent and sizable observed gender differentials in average monthly earnings of full time workers of 28% in the private sector.

Empirical evidence on the composition of gender earnings differentials in the Middle East and North Africa (MENA) is relatively limited, largely due to the lack of data availability in many countries in the region. Hence, the importance of this paper stems from providing evidence on the measurement and composition of considerable gender earnings differentials in a MENA country that despite its long commitment to the elimination of discrimination, has yet to introduce anti-discrimination provisions in its domestic legislation. It employs a standard extension to the Oaxaca (1973) and Blinder (1973) decomposition, while controlling for gender differentials in labor market participation decisions. This paper represents the most inclusive effort on the topic in Jordan to date, and supplies Jordan's policy makers with reasonable estimates of the size and a description of the nature of the problem, which is indispensable for designing the much needed regulations.

The paper highlights two important observations. First, although women's qualifications in terms of education and experience are widely believed to be undervalued in Jordan's labor market, results here do not support this hypothesis. Evidence from the market-driven private sector shows that women receive favorable returns to their education and similar returns to potential experience. Second, workers' relative participation decisions exert a positive impact of women's relative earnings, driven by marriage and non-labor income, confirming the strong cultural division of roles, where women are the caretakers and men are the breadwinners.

This paper is structured into five sections. Section I reviews the recent regional literature, and section II describes the dataset. Section III presents the methodology and section IV reports the empirical results. Finally, section V summarizes this paper's conclusions and policy recommendations.

I. Literature

The vast majority of the literature on gender earnings gaps focuses on developed market economies or economies in transition from a centrally planned to a market system. Developing countries on the other hand, particularly in the MENA region, are far less explored. Jordan, as a progressive MENA market economy, where a moderately conservative set of norms influences and often formulates social and economic decisions of individuals, falls within this category.

Yasin et al. (2010) investigate the determinants of gender wage discrimination in Pakistan. They find that women have lower job attainment opportunities and face socio-economic and cultural constraints that hinder their labor market participation. Moreover, whereas Schafgans (2000) and Pirmana (2006) indicate that gender earnings discrimination is still quite prevalent in each of Malaysia and Indonesia respectively, Ahmed and McGillivray (2015) show that the decline in the gender wage gap during the last decade in Bangladesh was mainly due to increased female educational attainment and a decline in discrimination.

For economies that resemble Jordan's institutional, demographic and cultural environment more closely, Dah et al. (2010) examine the gender earnings differential in Lebanon and find that women earn significantly less than men. Their analysis, however, does not provide an empirical explanation of their observations. El-Hamidi and Said (2005) investigate gender wage gaps in each of Egypt and Morocco over the 1990s. They conclude that the contribution of discrimination to the gender wage gap is sizable in both countries, with a declining trend over time. These results are confirmed by Biltagy (2014) and Kandil (2009) who conclude that the gender wage gaps in Egypt in 1988, 2006 and 2012 are mainly caused by discrimination. Using data from Palestinian territories, Daoud (2005) estimates the gender differential in returns to schooling, and finds that although women possess equivalent education as compared to men, their returns to schooling are lower. Razavi and Habibi (2014) report that a considerable part of the gender wage gap observed at the mean level of the wage distribution in Iran's public and private sectors is due to discrimination, and that the relative magnitude of wage discrimination is smaller at higher skill levels.

Also, Haberfeld and Cohen (1998) investigate the gender wage gap between native-born Israeli men and women. They show that despite the presence of anti-discrimination laws and higher levels of human capital for women, a non-productivity related gender wage gap still prevails. Further evidence is reported by Neuman and Oaxaca (2005). The authors analyze wage differentials in the 1990s, and show that gender differentials are larger than ethnic differentials, and that discrimination is more common between genders. Miki and Yuval (2011) observe that Israeli women tend to seek higher education than men in order to reduce the gender wage gap, and conclude that this strategy is effective for women with strong abilities.

In the case of Turkey, Akar et al. (2013) find that while the gender wage gap is constant across different firm size categories in the formal sector, it decreases with firm size for informal employment. Also, Akhmedjonov (2012) reports that the wage differential between Turkish men and women is almost entirely explained by discrimination.

Literature addressing the case of Jordan is very limited. Said (2012) estimates the gender wage differential by employment sector in Jordan, using the Jordanian Labor Market Survey in 2010. While correcting for workers' participation decisions, she reports that men earn 1.07 and 1.25 times as much as women in the public and private sectors, her estimates show a mean wage premium for women in the public sector and a rather surprising zero gender wage differential in the private sector.

In a number of descriptive reports, Sweidan (2012) uses the Jordanian Employment and Unemployment Survey and highlights that the gender earnings gap for professionals in 2009 is 26.1% in the public sector and as high as 69% in the private sector. Moreover, she reports quite sizable gaps of 38.1%, 25.2% and 27.5% in manufacturing, education and health, which are highly feminized in terms of participation. Using the same survey, Sweidan (2014) shows that in 2011 the monthly gender earnings gap is 10.2% in the public sector and 19.5% in the private sector, and that women earn less than men across all occupational categories and industries. Moreover, (Dajani Consulting, 2013) investigate the gender pay gap in Jordan's private education sector. Their results indicate that the gender wage gap is 41.6% in private schools and 23.1% in private universities. There is a significant degree of vertical segregation in private universities, since 70% of managerial jobs are held by men. The opposite is found in private schools. The study concludes that women's qualifications are undervalued and that the relatively higher demand for male teachers contributes considerably to the gender pay gap.

Although the aforementioned efforts report some estimates of the size of the gender earnings gap in Jordan's labor market, they are mainly descriptive and inconsistent. Given the magnitude of the observed gender earnings differential however, accompanied by Jordan's early commitment to

the elimination of all forms of discrimination, a more thorough investigation of the issue becomes of particular importance.

II. Data and Descriptive Statistics

In this paper I use cross sections 2002, 2006 and 2008 from the Jordanian Household Expenditure and Income Survey (HEIS), which is a nationally representative dataset that provides socio-economic information at various levels of detail.

Individuals included in the samples underlying this paper's estimations, are those men and women who are in the working age, completed their education, employed in the private sector, or choose not to participate in the labor force. Non-wage and public administration workers are excluded. Applying these restrictions defines an average sample of about 5267 individuals per cross section.

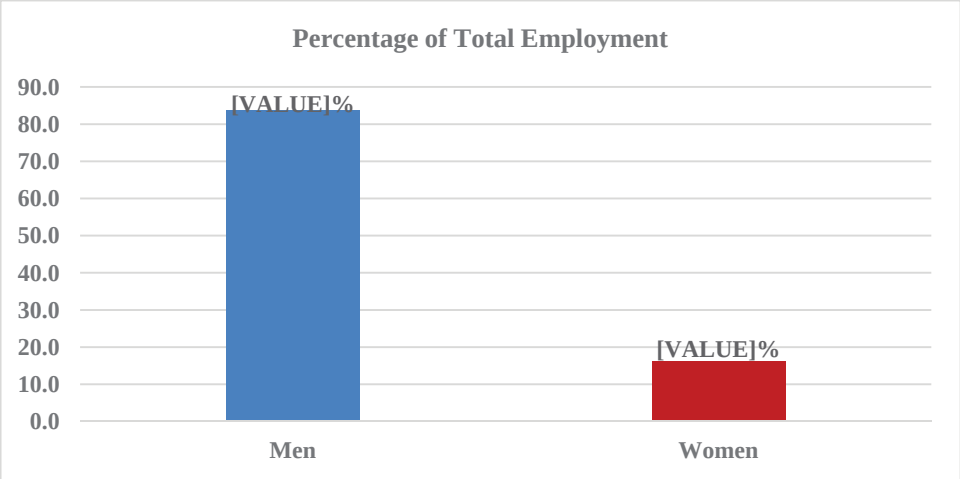


Figure 1: Gender's relative employment shares.

Figure 1 above shows that women have much lower participation rates, where men constitute 83.8% and women only 16.2%.

Earnings are measured by net real monthly earnings from employment in Jordanian Dinars, including the value of non-cash compensations from employment in 2006 prices. The instruments for participation decisions are marital status and real monthly non-labor income.

In terms of income and area of residence, figure 2 below shows that men enjoy higher monthly earnings, and receive higher income streams from non-labor sources. Also, about 90% of privately employed workers from both genders are urban residents.

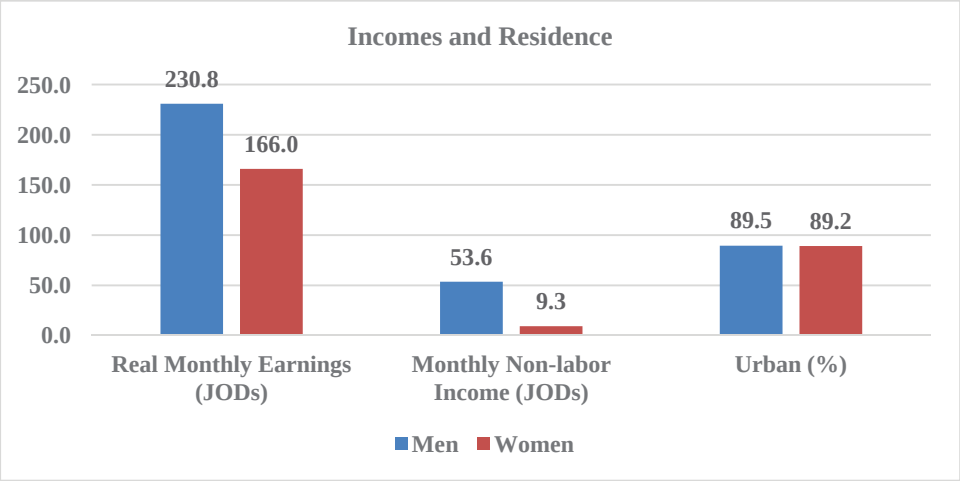


Figure 2: Labor, non-labor income and area of residence.

With respect to educational attainment, figure 3 indicates that women possess higher levels, where only 13.9% of men hold at least a 4-years bachelor degree, compared with 30.4% in the case of women.

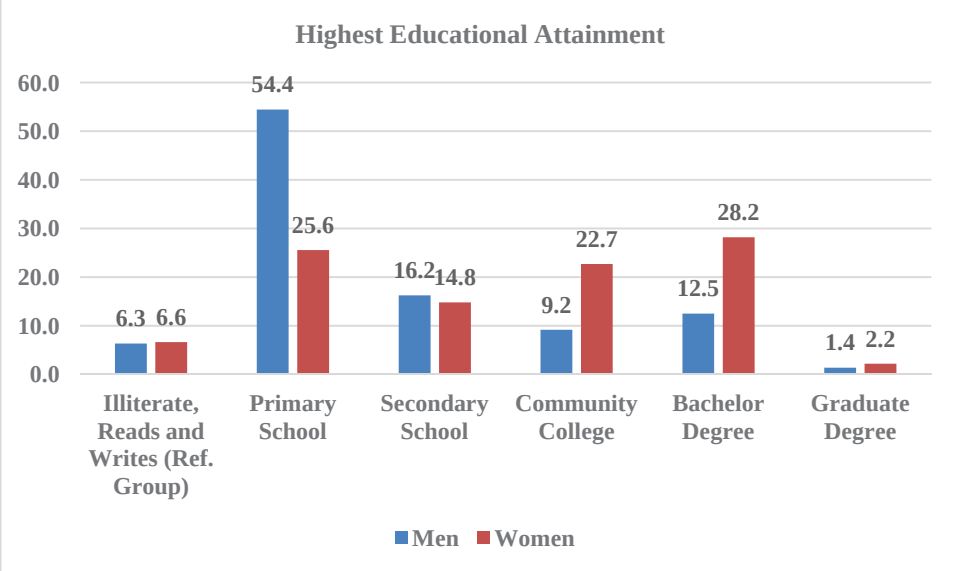


Figure 3: Highest educational attainment.

As for labor market experience, men potentially possess a higher stock as shown by figure 4 below. On average, men have on average about 5 additional years of potential experience.

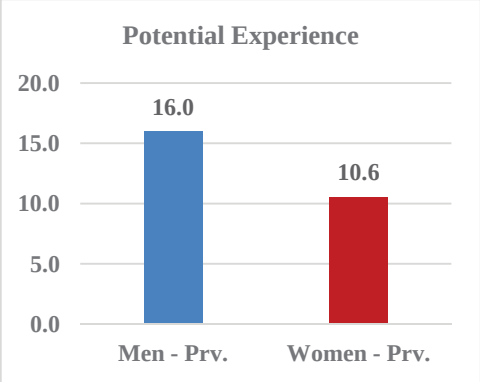


Figure 4: Potential experience in years.

III. Methodology:

This paper employs the approach of Neumark (1988) and Oaxaca and Ransom (1994) to the traditional two-fold Oaxaca (1973) and Blinder (1973) decomposition, where the coefficients from a pooled regression over both genders are used to decompose the estimated gender earnings differential into an explained and an unexplained component. This decomposition can be summarized by the equation

$$\bar{D} = \left[(\bar{X}^m - \bar{X}^w)\hat{\beta}^*\right] + \left[\bar{X}^m(\hat{\beta}^m - \hat{\beta}^*) + \bar{X}^w(\hat{\beta}^* - \hat{\beta}^w)\right] \left[(\bar{\lambda}^m - \bar{\lambda}^w)\hat{\beta}_\lambda^*\right] + \left[\bar{\lambda}^m(\hat{\beta}_\lambda^m - \hat{\beta}_\lambda^*) + \bar{\lambda}^w(\hat{\beta}_\lambda^* - \hat{\beta}_\lambda^w)\right].$$

In the above decomposition, $\bar{D}$ resembles the difference in genders' mean log earnings. X_i^g is a vector of human capital and job-specific characteristics, the $\hat{\beta}^* s$ are the nondiscriminatory coefficients obtained from a pooled regression including both genders and $\bar{\lambda}^g s$ are the estimated inverse Mill's ratios from each gender's participation equation.

IV. Empirical Results:

Figure 5 and 6 below show Heckman's two-step estimators for each gender's earnings regressions. They demonstrate that the returns to education are positive and increasing with the level of educational attainment for both genders.

Women's participation in private employment is faced by several constraints. Private sector employment is still perceived as less appropriate for women as it is for men. This attitude is influenced by longer effective working hours, which conflicts with their role as family caretakers and generally more liberal and less accommodating working conditions, which conflicts with the moderately conservative environment of the Jordanian society. Consequently, with the exceptions of employment in healthcare and education, as highlighted by (Dajani Consulting, 2013), the supply of women is relatively low, potentially leading to generally higher private returns, ceteris paribus.

With respect to labor market experience, the returns are positive and diminishing for both genders. Estimation results show that an extra year of potential experience increases earnings by around 4%, with no clear gender differential. Estimation results also show that employment of men

in managerial positions increases their earnings by about 72%, which is also influenced by the fact that fewer women are found in managerial occupations. Interestingly, the estimated coefficients of the coefficient of the inverse Mill's ratio is negative and significant for men and positive and significant for women. This implies that the price effect of gender participation decisions exerts a positive impact of women's relative earnings.

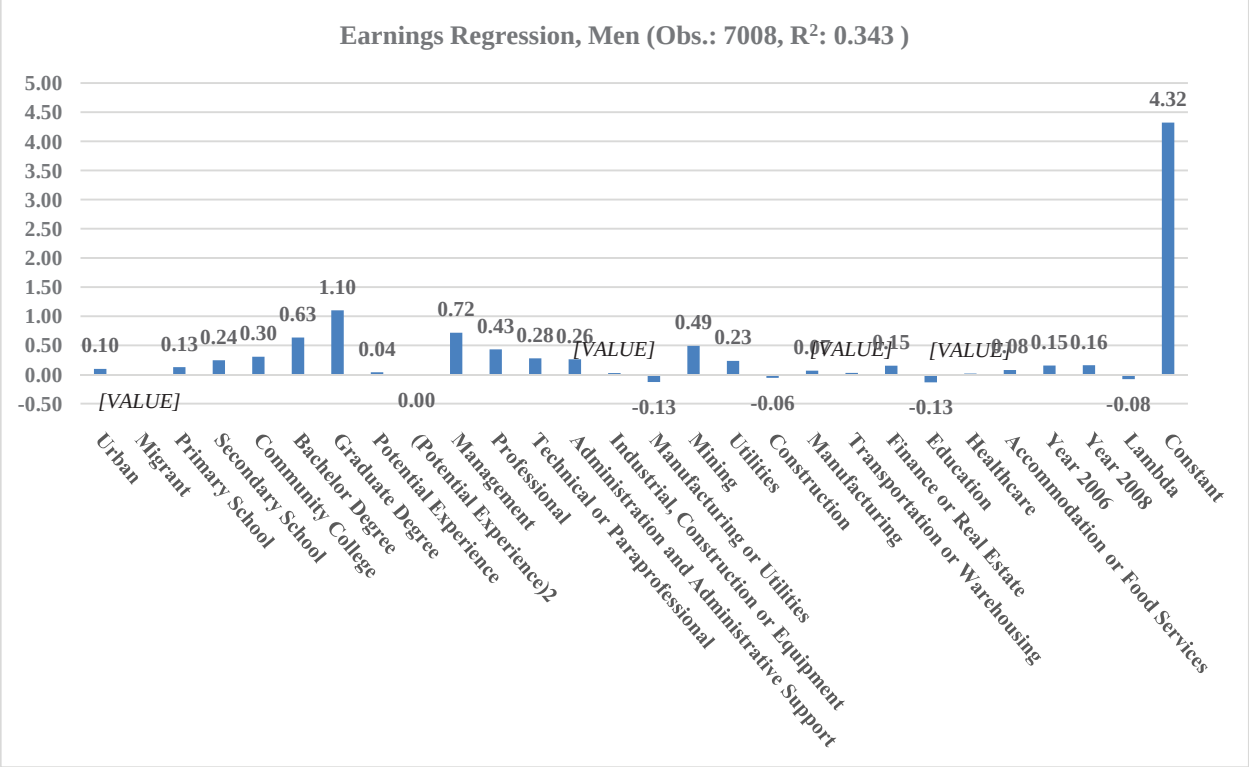


Figure 5: Selectivity-corrected earnings regressions in for men. Statistically insignificant coefficients are un-bolded italics.

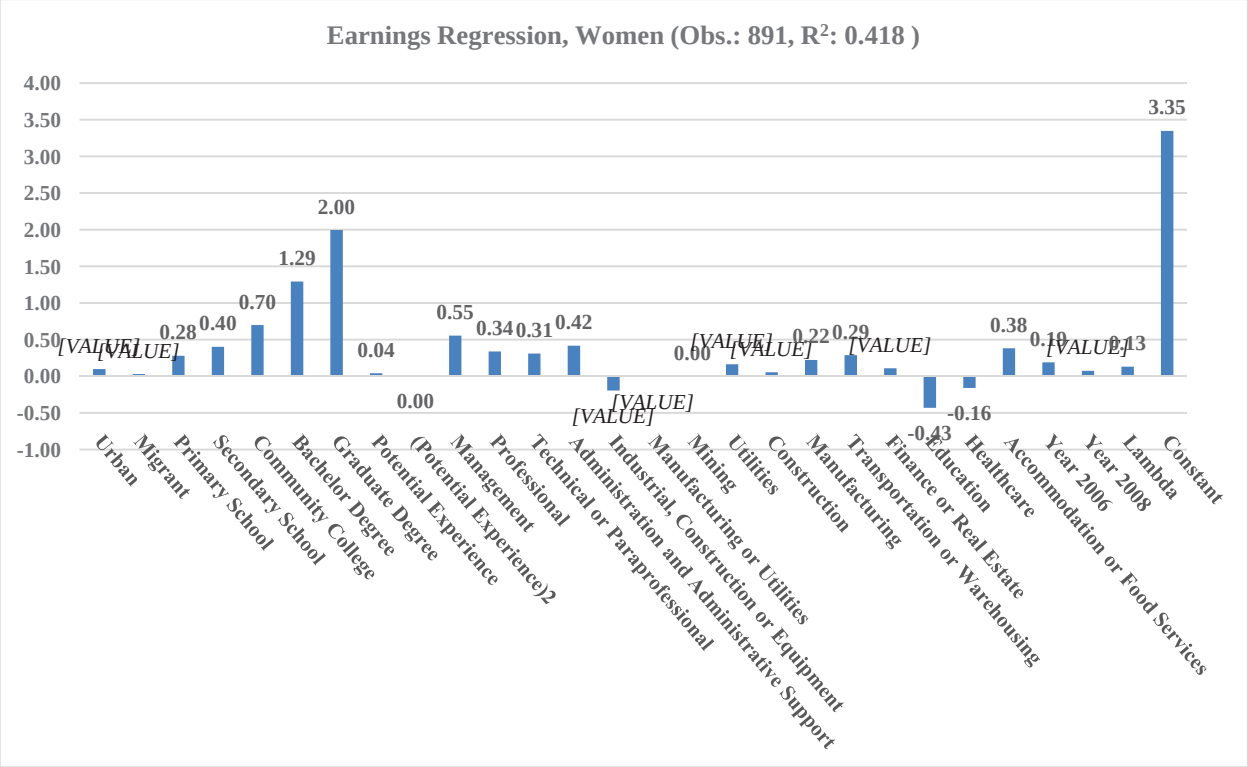


Figure 6: Selectivity-corrected earnings regressions for women. Statistically insignificant coefficients are un-bolded italics.

The estimated gender earnings gap is approximately 43%. Figure 7 shows that the differentials in estimated returns, including selectivity, explain over 91%. The total explained gap, on the other hand, causes the gap to increase further by only 9%. These estimates are considerably closer to the observed differentials than what Said (2012) has reported, and confirm the anticipations of Sweidan (2012, 2014) that the gender earning's differential is indeed largely due to discrimination.

However, caution is required when interpreting the relative contributions of the explained and unexplained components of the gap. For instance, within the total explained gap, although very small, women's relative better educational endowments individually cause the gender earnings differential to fall by about 35%, which is cancelled out by other components, including the effect of potential experience. This causes the first term, i.e. the total explained gap exclusive selectivity, to influence the gap negatively by 9.2%. The result that educational attainment in Jordan reduces the gender earnings' gap is consistent with the findings of Miki and Yuval (2011), who report that Israeli women with strong abilities benefit from the acquisition of more education.

With respect to the details of the unexplained gap, gender differentials in the returns to education significantly improve women's relative earnings in the private sector by 87%. This means that not only do Jordanian women possess a higher average educational endowment, but they also receive higher returns to education as compared with men. These favorable conditions on the side of education however, are completely neutralized by the differential in the regression's intercepts. As highlighted by Belzil and Hansen (2002), Pinkston (2003), Heckman et al. (2003), Belzil (2006) and Woodcock (2008), the intercept of a Mincer wage regression captures a blend of unobserved factors, which may include the effect of screening discrimination at the point of hiring, workers' unobserved market ability and skills, firm and match heterogeneity and the correlation between ability and schooling. A further investigation is needed to find which of these factors is causing the difference in the regressions' intercepts.

Finally, the sum of the third and fourth terms in figure 7 represent the effect of workers' relative participation decisions. Together, they show that the gender differential in participation decisions causes the average gender earnings differential to decline by about 63%. This can be explained by that lower skilled, less educated women who would potentially earn lower wages choose not to participate in the labor force and hence, affecting women's average relative earnings positively, all else constant.

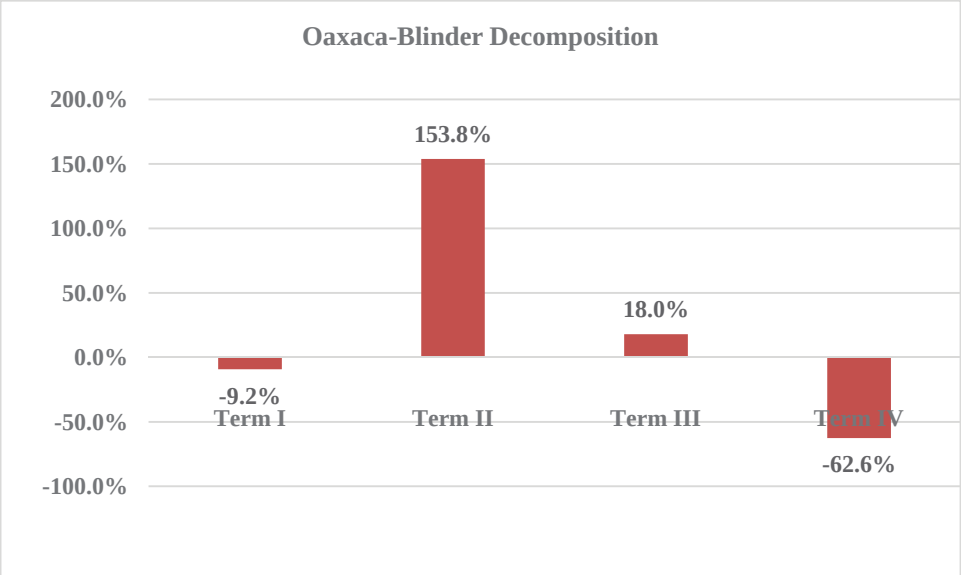


Figure 7: The two-fold Oaxaca-Blinder decomposition.

V. Conclusions

In this paper, I investigate the causes of the observed gender earnings differential in Jordan's private sector. Jordan showed early commitment to gender equity in its labor market, having addressed the issue in its constitution, ratified several relevant international conventions and established a dedicated national committee on equal pay. Despite that, this paper shows that the gender earnings differential is entirely explained by Oaxaca's total unexplained gap, the component that typically captures the effect of discrimination. Interestingly, however, women are found to enjoy an advantage in the returns to their education. Women's higher returns to education may be explained by their relatively lower labor supply in most private industries and in low-wage occupations. This shows that the notion of women's qualifications being undervalued, see (Dajani Consulting, 2013), cannot be generalized and is confined to certain industries such as private education.

The dominance of the unexplained effect, stresses the urgency of the introduction and enforcement of domestic anti-discrimination legislations in Jordan's labor market, not only at the work place after employment, but also at the stage of recruitment and the extension of job offers, as screening discrimination might play an important role in explaining the large difference in the regressions' intercepts.

Furthermore, women's participation in wage-paid employment is influenced differently by the same set of factors as compared with men, which gives rise to the importance of controlling for selectivity in both gender's earnings regressions. Evidence suggests that women's decisions are inclined towards not to work if married and their decision is not affected by non-labor income. Women prefer non-participation over receiving relatively low labor earnings. This is largely due the cultural context, where women assume the principal role of a households' caretaker as opposed to

its breadwinner. Hence, the difference in gender participation decisions asserts a negative effect on the estimated gender earnings differential, causing women's relative earnings to improve.

References

1. Ahmed, Salma; McGillivray; Mark. (2015). Human Capital, Discrimination, and the Gender Wage Gap in Bangladesh, *World Development*, Vol. 67, pp. 506–524.
2. Akar, Gizem; Balkan, Binnur; Tümen, Semih. (2013). Overview of Firm-Size and Gender Pay Gaps in Turkey: The Role of Informal Employment, *Ekonomi-tek*, Vol. 2, No. 3, pp. 1-21.
3. Akhmedjonov, Alisher. (2012). New evidence on pay gap between men and women in Turkey, *Economics Letters*, Vol. 117, pp. 32–34.
4. Assaad, Ragui; Hendy, Rana; Yassine, Chaimaa. (2012). Gender and the Jordanian Labor Market, *The Economic Research Forum (ERF)*, Working Paper No. 701.
5. Belzil, Christian. (2006). Testing the Specification of the Mincer Wage Equation, *Groupe d'Analyse et de Théorie Économique (GATE)*, UMR 5824 du CNRS, W.P. 06-08.
6. Belzil, Christian; Hansen, Jörgen. (2002). Unobserved Ability and the Return to Schooling, *Institute for the Study of Labor (IZA)*, Discussion Paper No. 508.
7. Biltagy, Marwa. (2014). Estimation of Gender Wage Differentials in Egypt Using Oaxaca Decomposition Technique, *Topics in Middle Eastern and North African Economies*, Vol. 16, No. 1, pp. 17-42.
8. Blinder, A. (1973). Wage Discrimination: Reduced Form and Structural Estimates, *The Journal of Human Resources*, Vol. 8, No. 4, pp. 436-455.
9. Dah, Abdallah; Salah, Abosedra, Farouk, Dahbourah. (2010). Gender Pay Discrimination In Lebanon, Assessment Of Recent Data, *Oxford Journal: An International Journal of Business & Economics*, Vol. 5, No. 1, pp. 138-147.
10. Daoud, Yousef. (2005). Gender gap in returns to schooling in Palestine, *Economics of Education Review*, Vol. 24, pp. 633–649.
11. El-Hamidi, Fatma; Said, Mona. (2005). Wage Inequality by Education and Gender in MENA: Contrasting the Egyptian and Moroccan Experiences in the 1990s, 12th Annual Conference of the Economic Research Forum (ERF), Vol. 3, December 19.
12. Haberfeld, Yitchak; Cohen, Yinon. (1998). Earnings Gaps Between Israel's Native-Born Men and Women: 1982-1993, *Sex Roles*, Vol. 39, Nos. 11/12.pp. 855-872.
13. Heckman, James. (1979). Sample Selection Bias as a Specification Error, *Econometrica*, Vol. 47, No. 1, pp. 153-161.
14. Heckman, James; Lochner, Lance J.; Todd, Petra E. 2003. Fifty Years of Mincer Earnings Regressions, *National Bureau of Economic Research (NBER)*, Working Paper No. 9732.
15. International Labour Organization (ILO), Convention No. 111: Convention concerning Discrimination in Respect of Employment and Occupation, 1958, Available at http://ilo.org/wcmsp5/groups/public/---dgreports/--- gender/documents/genericdocument/wcms_114189.pdf.
16. International Labour Organization (ILO), Convention No. 111: Convention concerning Equal Remuneration for Men and Women Workers for Work of Equal Value, 1951, Available at http://www.ilo.org/wcmsp5/groups/public/@dgreports/@gender/documents/genericdocument/wcms_114185.pdf.
17. Kanazawa, Satoshi. (2005). Is ''discrimination'' necessary to explain the sex gap in earnings?, *Journal of Economic Psychology*, Vol. 26, pp. 269–287.
18. Kandil, Lamia E. (2009). Gender Wage Discrimination in Egypt: A Quantile Regression Analysis, *Paris: Université Paris I Panthéon-Sorbonne*, Working Paper.
19. Miki, Malul; Yuval, Fany. (2011). Using education to reduce the wage gap between men and women, *The Journal of Socio-Economics*, Vol. 40, pp. 412–416.
20. Mryyan, Nader. (2012). Demographics, Labor Force Participation and Unemployment in Jordan, *The Economic Research Forum (ERF)*, Working Paper No. 670.

21. Neuman, Shoshana; Oaxaca, Ronald L. 2005. Wage differentials in the 1990s in Israel: endowments, discrimination, and selectivity, *International Journal of Manpower*, Vol. 26, No. 3, pp. 217-236.
22. Neumark, David. (1988). Employers' Discriminatory Behavior and the Estimation of Wage Discrimination, *Journal of Human Resources*, Vol. 23, pp. 279-295.
23. Oaxaca, Ronald L., & Ransom, Michael R., (1994). On discrimination and the decomposition of wage differentials, *Journal of Econometrics*, Elsevier, 61(1), pages 5-21.
24. Oaxaca, Ronald. (1973). Men-Women Wage Differentials in Urban Labor Markets, *International Economic Review*, Vol. 14, No. 3, pp. 693-709.
25. Pinkston, Joshua C. 2003. Screening discrimination and the determinants of wages, *Labour Economics*, Vol. 10, pp. 643–658.
26. Pirmana, Viktor. (2006). Earnings Differential Between Male-Female In Indonesia: Evidence From Sakernas Data, Department of Economics, Center for Economics and Development Studies, Padjadjaran University, Working Paper No. 200608.
27. Razavi, Seyed M.; Habibi, Nader. (2014). Decomposition of gender wage differentials in Iran: an empirical study based on household survey data, *Journal of Developing Areas*, Vol. 48, Issue 2, pp. 185-204.
28. Said, Mona. (2012). Wage Differentials During Economic Reform and Crisis, *Comparative Economic Studies*, Vol. 54, pp. 65–101.
29. Schafgans, Marcia M. A. (2000). Gender wage differences in Malaysia: parametric and semiparametric estimation, *Journal of Development Economics*, Vol. 63, pp. 351–378.
30. Sweidan, Manal. (2012). Male-Female Pay Differences Jordanian Case, Joint UN-ECE/MEDSTAT III Work Session and Training on Gender Statistics, Geneva/Switzerland, March 2012.
31. Sweidan, Manal. (2014). Equal Pay for Equal Work? A Look at the Pay Gap between Men and Women in Jordan, Fifth Global Forum on Gender Statistics Aguascalientes, Mexico, November 2014.
32. United Nations (UN), Convention on the Elimination of All Forms of Discrimination against Women, Available Online at http://www.un.org/womenwatch/daw/cedaw/cedaw27/tun3-4.pdf.
33. Woodcock, Simon D. (2008). Wage differentials in the presence of unobserved worker, firm, and match heterogeneity, *Labour Economics*, Vol. 15, pp. 772–794.
34. Yasin, Ghulam; Chaudhry, Imran S.; Afzal, Saima. (2010). The Determinants of Gender Wage Discrimination in Pakistan: Econometric Evidence from Punjab Province, *Asian Social Science*, Vol. 6, No. 11, pp. 239-255.

MULTICRITERIA ANALYSIS OF FEMALE ENTREPRENEURSHIP IN TRANSITION ECONOMIES: THE CASE OF CENTRAL EUROPE AND THE BALTIC STATES

Ph. D. Jelena Petrović[283],

Ph. D. Snežana Radukić[284]

Abstract

Entrepreneurship represents a hallmark of advanced economies and market economies. However, entrepreneurship achieves its reaffirmation and full creativity in the countries in transition that are returning to the open market economy. The transitional economies of Eastern and Central Europe have achieved different levels of development of entrepreneurship. Entrepreneurship is an important factor in the economic development of countries in transition, because it can accelerate their economic growth and alleviate the consequences of changes in the structure of their economies through self-employment and job creation.

The transition process has affected the transformation of many states towards democratic societies, causing the change in gender equality. The issue of gender equality and the need for equal rights of sexes in social and business life is rising in importance in countries in transition.

Female entrepreneurship has an increasingly significant role in the development of the world economy. The development of women's entrepreneurship affects the economic development of countries, the improvement of gender equality, and the achievement of better economic status, living standard and quality of life of women in developed countries, but also in countries in transition. In developed countries, there are special incentives and support for the development of entrepreneurship, which are designed for women. In addition to the policies that are applied, which are aimed at reducing discrimination and gender inequality, these countries have a large number of organizations and associations that deal with the issue of women and provide them with various forms of support. However, in countries in transition, the situation is different, because the initiatives they spawn face obstacles that discourage the development of women's entrepreneurship. The factors that are determined by the degree of development of countries in transition, which can be an obstacle which women entrepreneurs and men entrepreneurs face, are lack of capital, lack of adequate knowledge and management skills, as well as limited access to new technologies. However, women entrepreneurs face obstacles that are specific to women, such as traditional views.

The main purpose of this paper is to investigate the influence of factors (economic, legal, educational, and socio-cultural) on female entrepreneurship in countries in transition. The aim of this paper is to identify the individual impact of factors on female entrepreneurship by using appropriate methodology, as well as to rank the countries in transition on the basis of these factors, in order to identify the countries that have the most favorable environment for the development of women's entrepreneurship. The study included eight countries in transition, i.e. the Baltic States, as well as countries in transition which belong to Central Europe. The study is realized by applying the VIKOR method and CRITIC method, as well as the methods of correlation and comparative analysis.

Keywords: *multicriteria analysis, female entrepreneurship, transition economies, VIKOR method.*

[283] Assistant Professor, University of Niš, Faculty of Sciences and Mathematics, Višegradska 33, Niš, Serbia, jelenapetrovic619@yahoo.com

[284] Associate Professor, University of Niš, Faculty of Economics, Trg kralja Aleksandra ujedinitelja 11, Niš, Serbia, snezana.radukic@eknfak.ni.ac.rs

Introduction

Entrepreneurship plays an important role in the economy and society of each country. Since the writings of Marshall (1890) and Schumpeter (1921), entrepreneurship is believed to be a key determinant of the economic success of a country or region and a crucial factor in shaping the spatial distribution of economic activities on the national territory (Faggio and Silva, 2014, p. 67). A number of studies have indicated a positive correlation between entrepreneurial activity and economic growth, as well as the dependence of this correlation on the stage of economic development of an observed country (Acs and Amoros, 2008).

The development of entrepreneurship has a greater importance in the transition economies in relation to the economies of highly developed countries, because it is one of the most important factors of economic growth and development. Researchers believe that it is a key factor in insuring the success of transition from Socialism to Capitalism (Smallbone and Welter, 2009). One can distinguish among the following effects of entrepreneurship on economic development of the countries in transition: being mechanisms for privatizing and restructuring state-owned enterprises; helping to transform the distorted and monopolistic centrally-planned industrial structure; and finally, establishing a private enterprise sector (Smallbone and Welter, 2006). It is, therefore, essential that countries in transition pay special attention to the factors affecting the development of entrepreneurship, in order to improve them.

Gender inequality is significantly present in numerous aspects in transition countries. It is manifested by lack of inclusion of women in politics, economic inequality, unequal status in the family and society. The listed aspects of gender inequality create inadequate and unfavorable conditions for the development of female entrepreneurship. Moreover, if the potential contribution of entrepreneurship to economic development and social inclusion is to be fulfilled, it is important that women as well as men are fully represented as entrepreneurs (Aidis et. al., 2007).

Current trends in the development of entrepreneurship point to a growing participation of women in entrepreneurial activities in developed countries, as well as countries in transition. The development of female entrepreneurship has great economic and social importance for the countries in transition. As a result of female entrepreneurial activity, new companies are established. Newly established companies provide a certain number of new jobs, stand for important sources of information, and contribute to the increase of national income. At the same time, the development of female entrepreneurship affects the reduction of the gender gap, which is, more or less, present in all world countries. Reducing gender discrimination allows solving plenty of social problems.

Welter et al. (2004) note that the development of female entrepreneurship has great significance for countries in transition, as women entrepreneurs mainly employ other women, thus reducing the effects of gender discrimination on the labor market and reducing the number of unemployed women. Moreover, increased female entrepreneurial activity brings new employment opportunities to younger women. Encouraging potential women entrepreneurs to start their own business contributes to the success of the transition process through the development of the private sector and increased innovation capacity.

A large number of countries in the world, especially European Union members, invest significant efforts to encourage the development of female entrepreneurship, since it does not develop in a vacuum. Female entrepreneurial activities are determined by their environment. The environment in question is determined and controlled by formal and informal institutions of society. According to Delmar (2003, p. 6): “women entrepreneurship is therefore closely related to the general framework conditions for entrepreneurship in a specific economy”.

The paper pays special attention to the analysis of factors (technical and technological development, economic, institutional, and cultural factors), which affect the participation of women in entrepreneurial activities in the EU countries in transition. The comparison of environment for the development of entrepreneurship based on certain factors in the countries in transition is important, as they are at different transformation stages.

Numerous studies analyze the contribution of each factor to women's participation in entrepreneurial activities. Classical methods of optimisation use only one criterion when making decisions, thus neglecting the reality of a concrete problem that is being discussed. A multi-criteria decision-making process can be applied in cases of a large number of different criteria, where some of them can even be in conflict (Čupić et al., 2001). For a more objective solution of such situations, it is necessary to rank alternatives, by applying a greater number of criteria simultaneously.

Methods of a multi-criteria analysis that have a significant application in social areas are: ELECTRE method, PROMETHEE, analytic hierarchy process, TOPSIS and VIKOR (Multi-Criteria Compromise ranking). The VIKOR method has significant application in decision-making processes in the field of regional development, service quality, investment, transport, and so on. The VIKOR method, which will be given special attention in this paper, has been developed on the basis of the elements from compromise programming.

The main objective of this paper is to apply multi-criteria analysis for determining which of the observed countries has the best environment for the development of female entrepreneurship. Specific objectives of the study are 1) analysis of the factors affecting the participation of women in entrepreneurial activity in the observed countries, 2) the ranking of the observed countries on the basis of factors affecting women's participation in entrepreneurial activities. The starting hypotheses in this paper are:

- The country that has the best environment for the development of female entrepreneurship records the highest female entrepreneurial activity,
- There is a strong positive correlation between the factors affecting the participation of women in entrepreneurial activity and recorded female entrepreneurial activity in the observed countries.

1. Literature review

In recent decades, entrepreneurship has been the focus of numerous theoretical studies. Literature abounds in a number of different definitions of entrepreneurship. Morris has identified 77 definitions of entrepreneurship (Morris, 1998, p. 15). The initial definition of entrepreneurship is still valid, but three research questions made since 1999 were modified, as some of them were answered by the findings of annual surveys. In this regard, entrepreneurship is defined as: "Any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business" (Reynolds et al., 1999, p. 3).

At the aggregate level, technology, level of economic development, demographic characteristics, culture and institutions all play a role in determining the opportunities (on the demand side), and the capabilities and preferences (on the supply side) that plant the seeds of nascent entrepreneurship (Thurik et al., 2002, p. 161). The paper pays special attention to the analysis of the factors affecting entrepreneurship, divided into the following four groups: technical and technological development, economic factors, institutional factors, and cultural factors.

In late twentieth and early twenty-first century, technical and technological development has been one of the most important factors to increase entrepreneurial activity and expansion of

entrepreneurial opportunities. Loscocco and Robinson (1991) categorize the retail and service industries as female typed, and the manufacturing, construction, and high technology as male-typed. Since women are less inclined to work in high technology sectors (Anna et al., 1999, p.281), as compared to the opposite sex, it is to be expected that the technical and technological development has a lower impact on the development of female entrepreneurship, in relation to the development of male entrepreneurship.

The paper pays special attention to economic factors, i.e. GNI per capita, the share of service sector in gross domestic product, and unemployment of women (percentage of female labor force). Economic development and entrepreneurship are highly correlated and mutually dependent. A number of studies have indicated a negative impact of economic development on self-employment (Schultz, 1990). These studies were conducted in the nineteen-eighties, when per capita income was relatively low. Recent research has shown that there is a positive correlation between income per capita and entrepreneurship (Bregger, 1996). Carree et al. (2002) formulate the equilibrium business ownership to have a U-shaped relation with respect to economic development.

In developed countries, as well as countries in transition, the share of the service sector in national income, and total employment increases. The growth of service industries has also been a major factor in increasing female labor force participation (Ward and Pampel, 1985). Therefore, a significant share of the service sector in national income and employment can have a greater influence on the development of female entrepreneurship, in relation to male entrepreneurship.

In terms of the distinction between necessity and opportunity entrepreneurship as proposed in the Global Entrepreneurship Monitor (Reynolds et al., 2002), one may argue that increasing levels of unemployment are likely to lead to a higher level of necessity entrepreneurship (i.e., people who start a business because they have no other employment options available) relative to the level of opportunity entrepreneurship (i.e., people who start a business because they perceive an opportunity). Given that self-employment and entrepreneurship are a necessity for women in countries in transition, this paper analyses the unemployment rate of women in countries in transition, as an economic factor affecting female entrepreneurship.

During the transition process small firms start replacing the larger industrial businesses and there is a shift away from unskilled, labor-intensive production towards capital-, technology- and skill intensive production (Brunner, 1993). Depending upon the pace of the reforms and the different stages of transformation to market based economies, the transition effect on entrepreneurship is likely to differ between transition countries (Smallbone and Welter, 2001). Bearing in mind a large number of transition indicators relating to market structure, as well as the importance of structural changes related to micro, small, and medium-sized enterprises for the development of entrepreneurship, the paper analyses the impact of transition process in access to sources of funding by small and medium-sized enterprises.

While exploring the factors of entrepreneurship, it is necessary to make a distinction between institutions and culture (Wennekers and Thurik, 1999, p. 41). Culture involves trust, commitment and authority relationships, while social institutions that are related to business organizations, involve property rights, capital markets and the education system (Whitley, 1992, p. 19-25 and p. 269). The paper focuses on the following institutional factors: entrepreneurship education and maternity leave coverage.

Every young person not will become an entrepreneur just because they are exposed to entrepreneurship education. However, it could sensitize man and women to the existence of opportunities in their environment (Fuduric, 2009, p. 69). In this way, entrepreneurship education could partially solve a major problem in countries in transition, related to brain drain.

There are different definitions of culture. The paper focuseson the following definition, according to which culture is 'the collective programming of the mind which distinguishes the members of one group or category of people from another' (Hofstede, 1991, p. 5). Culture is intangible and largely unobservable as it can only be studied through various verbal and nonverbal manifestations from which constructs are inferred (Hofstede, 1980, p. 14).

In countries with a high density of entrepreneurial activity examples of successful new venture creation offer role models people can conform to: 'If he/she can do it, I can' (Veciana, 1999, p. 195). "Demonstration" of this principle applies to the following: the more female entrepreneurs, the higher the exposure of women to entrepreneurship, the higher the acceptance of entrepreneurship as an alternative to wage-employment and the higher the likelihood of other women becoming self-employed.

2. Methodology

In this paper, in addition to VIKOR method, on the basis of which the ranking of observed countries was carried out, based on the factors affecting the participation of women in entrepreneurial activities, and CRITIC method for determining weight coefficients, correlation analysis was used.

2.1. VIKOR method - The method of multicriteria decision-making

The VIKOR method represents a method of a multi-criteria optimisation, which makes a decision regarding the choice of the best constructive based on the given final set of alternatives. The steps for calculating the VIKOR method are as follows:

Step 1 – Determination of the highest and the lowest value of the given criterion. The best and the weakest values are especially determined for each criterion, f_j^* and $f^{\bar{j}}$ for all criterion functions, j=1,2,…,n;

$f_j^* = \max_i f_{ij}$, $f_j^- = \min_i f_{ij}$, if the j-th function represents a benefit;
$f_j^* = \min_i f_{ij}$, $f_j^- = \max_i f_{ij}$, if the j-th function represents a cost (Opricović and Tzeng 2007, p. 515).

Step 2 – Determination of the values S_i and R_i :

$$S_i = \sum_{j=1}^{n} w_j^i \frac{f_j^* - f_{ij}}{f_j^* - f_j^-} = \sum_{j=1}^{n_i} w_j^i d_{ij} \quad i = 1,2,\ldots..,m \quad \sum_{j=1}^{n_i} w_j^i = 1 \qquad 1)$$

$$R_i = \max_j \{d_{ij} | j = 1,2,\ldots,n_i\} \qquad i = 1,2,\ldots\ldots,m \qquad 2)$$

Step 3 - Determination of the values Q_i, $i=1,2,...m$. In the VIKOR method, $S^* = \min_i S_i$, $S^- = \max_i S_i$, whereas $R^* = \min_i R_i$ and $R^- = \max_i R_i$. In this way, we could obtain results which show a relative relation of these alternatives when calculating Q_i.

$$Q_i = \frac{v(S_i - S^*)}{(S^- - S^*)} + (1 - v)(R_i - R^*)/(R^- - R^*), \text{ where is } 0 \leq v \geq 1 \qquad 3)$$

The value Q_i combines the values QS_i and QR_i (third ranking list). By the choice of the value for v (weight satisfying of most criteria), the influence of the value QS_i or QR_i can be favored in the compromise ranking list Q_i. The value v influences the ranking of alternatives, and is most often determined as v=0.25, v=0.5, and v=0.75. The alternative A_i that has the lowest value on the ranking list Q_i (v=0,5) is the best alternative if the following conditions are satisfied:

The condition C1 – condition of "sufficient advantage"

$$Q(A_2) - Q(A_1) \geq DQ$$

Where A_2 represents the alternative that takes the second position on the ranking list Q_i (v=0,5), and it amounts: $DQ=\frac{1}{1-m}$.

The condition C2 – condition of "acceptable sustainability in decision-making"

The alternative A_1 except on the ranking list Q_i (v=0,5) must be best rated, and/or have the lowest value on at least one of the following ranking lists QS, QR, Q_i(v=0,25) and Q_i(v=0,75). If A_1 does not satisfy stated conditions, then the compromise solution contains (Opricović, Tzeng, 2007, 516):

1) Alternatives A_1 and A_2 if the condition C2 is not satisfied;
2) Alternatives A_1, A_2,… A_m if the condition C1 is not satisfied, where Am is determined by the relation $Q(A_m) - Q(A_1) < DQ$ for the maximum m.

2.2. The CRITIC method

The CRITIC method is a method for determining the objective values of weight criteria. It falls within the class of correlation methods. Starting from the general definition of a multi-criteria problem (Diakoulaki et al., 1995):

$$max\{f_1(a), f_2(a), \dots f_m(a) \mid a \in A\} \qquad 4)$$

for each criterion f_j, the membership function x_j is defined, and it transforms all the values of the criterion f_i into interval [0,1].

$$x_{aj} = \frac{f_j(a) - f_j^-}{f_j^+ - f_j^-} \qquad 5)$$

This transformation is based on the concept of an ideal point. The value x_{aj} shows how close the variant a to the ideal value f_j^+, which represents the best value of the criterion *j*, and how far it is from the anti-ideal value f_j^-, which is the lowest value of the criterion *j*.

In this way, the initial matrix is converted into the matrix with generic elements x_j. It is possible to view the criterion vector separately:

$$x_j = \left(x_j(1), x_j(2), \dots, x_j(n)\right) \qquad 6)$$

Each vector has a standard deviation σ_j^3, which represents a measure of deviation of variant values for the given criterion from some mean value which represents the measure of contrast intensity of the observed criterion.

In the continuation of the method, it is necessary to construct a symmetric matrix of *mxm* dimensions with the elements r_{jk} that represent the coefficients of a linear correlation between the vectors x_i and x_k. The expression

$$\sum_{k=1}^{m}\left(1 - r_{jk}\right) \qquad 7)$$

represents the measure of the conflict of the criterion j in relation to other criteria in a given decision-making process.

The amount of information C_j, contained in the criterion j, is determined by the combination of previously stated values σ_j and r_{jk}in the following way:

$$C_j = \sigma_j \sum_{k=1}^{m} (1 - r_{jk}) \quad 8)$$

Based on the previous analysis, it can be concluded that the higher value C_j means a greater amount of information obtained from the given criterion, with the relative importance of the observed criterion for the given decision-making process also being higher.

The objective criteria weights are obtained with the normalisation of the value C_j:

$$w_j = \frac{C_j}{\sum_{k=1}^{m} C_k} \quad 9)$$

3. Data – Determining the criteria to form the initial decision matrix

Table 1 presents total, female and male entrepreneurial activity rates for countries of Central Europe and the Baltic States participating in the 2014 Global Entrepreneurship Monitor. Entrepreneurial female activity in the present study corresponds with the Female Entrepreneurial Activity rate as proposed in the Global Entrepreneurship Monitor. Female entrepreneurial activity is defined as percentage of female or male 18-64 population who are either a nascent entrepreneur or owner-manager of a new business. The largest share of men, as well as women, in entrepreneurial activity was recorded in Latvia, while the lowest share of men and women in entrepreneurial activity was recorded in Slovenia.

Table 14 – Total, female and male entrepreneurial activity rates for Central Europe and the Baltic States

Country	Total entrepreneurial activity	Female entrepreneurial activity	Male entrepreneurial activity
Croatia	7.97	4.75	11.28
Estonia	9.43	7.71	11.21
Hungary	9.33	5.29	13.48
Latvia	13.30	10.10	16.60
Lithuania	11.32	6.78	16.19
Poland	9.21	5.95	12.50
Slovak Republic	10.90	7.41	14.37
Slovenia	6.33	4.25	8.29

Source: Global Entrepreneurship Minitor, http://www.gemconsortium.org/data

Slovenia, which achieved the highest per capita income, allocates the largest share of income for research and development. The largest share of the tertiary sector in the gross domestic product was recorded in Latvia, and the lowest in the Slovak Republic. The highest unemployment rate of women was recorded in Croatia, and the lowest in Estonia.

Table 2 – The technical and technological development and economic factors affecting the participation of women in entrepreneurial activity

Country	Research and development expenditure (% of GDP)	GNI per capita, Atlas method (current US$)	Services (% of GDP)	Unemployment, female (% of female labor force)
Croatia	0.75	13020	68.57	16.80
Estonia	2.18	18530	67.46	8.30
Hungary	1.30	13470	65.41	10.20
Latvia	0.66	15660	74.05	10.50
Lithuania	0.90	15380	68.72	10.50
Poland	0.90	13730	63.45	11.10
Slovak Republic	0.82	17810	62.73	14.50
Slovenia	2.80	23220	65.85	11.20

Source: World Bank Development Indicators Database, http://data.worldbank.org/data-catalog/worlddevelopment-indicators

The difficult economic and sociopolitical environment has also revealed a number of structural challenges in the micro, small and medium-sized enterprise (MSME), private equity and capital market sectors. Table 3 shows the transition indicator referring to the gap for market-supporting institutions, where “large” indicates a major transition gap, a “negligible” indicates standards and performance that are typical of advanced industrialized economies.

Table 3 – Transition indicators

Country	Sector-level transition indicator 2014: market-supporting institutions -MSME finance	Inclusion gaps for gender	
		Access to finance	Labour policy
Croatia	Medium	Small	Medium
Estonia	Small	Medium	Small
Hungary	Small	Medium	Negligible
Latvia	Small	Small	Small
Lithuania	Small	Medium	Small
Poland	Small	Medium	Small
Slovak Republic	Negligible	Medium	Small
Slovenia	Small	Small	Small

Source: EBRD Transition Report (2014). http://www.ebrd.com/downloads/research/transition/

From the observed countries, the largest transition gap was recorded in Croatia. In the Slovak Republic, the level of development of market-supporting institutions for financing micro, small, and medium-sized enterprises is consistent with the highly developed countries. Other observed countries recorded a small transition gap.

Table 4 – Institutional and cultural factors that affect women's participation in entrepreneurial activities

Country	Inclusion gaps for gender		Enterprise Education		Maternity leave coverage	Cultural and social norms
	Access to finance	Labour policy	at basic school	at post-secondary levels		
Croatia	Small	Medium	1.68	2.35	16.8	2.02
Estonia	Medium	Small	2.63	2.99	16	3.39
Hungary	Medium	Negligible	1.68	2.82	18	2.32
Latvia	Small	Small	2.51	3.17	20	2.85
Lithuania	Medium	Small	2.37	3.07	15.4	3.09
Poland	Medium	Small	1.75	2.54	15	2.96
Slovak Republic	Medium	Small	2.21	2.98	26	2.40
Slovenia	Small	Small	1.77	2.23	20	2.06

Source: International Labour Organization, http://www.ilo.org/dyn/sesame/IFPSES.SocialDatabase; Global Entrepreneurship Report 2014, http://www.gemconsortium.org/report.

In addition to the above-mentioned transition indicator, the paper pays attention to the transition indicators relating to gender-based inclusion gaps, where the first considers the gap referring to the unequal access to finance, depending on gender, and the second relates to identifying whether there is inequality in respect of labor policy. When access to finance is taken into consideration, lower inequality in access to finance, depending on gender, exists in Croatia, Latvia, and Slovenia, and is much higher in other observed countries. With respect to gender inequality in labor policy, the highest level exists in Croatia, and slightly lower in other observed countries, except in Hungary, where there is gender equality in respect of labor policy.

The information about entrepreneurship at basic levels is very important for policy makers, as this score shows the extent to which primary and secondary education encourages creativity, self-sufficiency, and personal initiative, provides adequate instruction on market economic principles, and pays adequate attention to entrepreneurship and new firms' creation. Entrepreneurship education at basic levels, i.e. in primary and secondary schools, has a quite unfavorable rating in a number of countries, except in Denmark, Singapore, the Philippines, and the Netherlands. When the observed countries are taken into account, on a scale of 1 to 5, Croatia and Hungary got the lowest rating, and Estonia the highest. With respect to the existence of entrepreneurship education at universities, of the observed countries, the highest rating was given to Latvia and the lowest to Slovenia.

In addition to the inclusion of entrepreneurship education in the educational system, the paper pays special attention to maternity leave coverage, as one of institutional factors. Maternity leave coverage is the product of share of wage paid covered and time during which maternity benefit is paid in weeks, which is divided by 100. The maximum maternity leave coverage is recorded in the Slovak Republic, and the lowest in Poland.

The 2014 Global Entrepreneurship Monitor report estimated 72 countries in terms of cultural and social norms that can encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income. Based on the data given in Table 4, the highest rating was given to Estonia and the lowest to Slovenia.

4. Results and discussion

Starting from the values of d_{ij} and weight criteria, calculated using the CRITIC method, we calculated the values of S and R. According to the obtained values of QS, QR, and Q_i for each country, three independent rankings can be formed. According to all criteria in respect of QS, QR, and Q_i (v = 0.5), the best alternative is A_4 (Latvia). The alternative A_4 meets the condition U1 because

$$Q_8\text{-}Q_4 = 0{,}4269\text{-}0{,}000 = 0{,}4269$$
$$DQ = \min(0.25 ; 1/(8\text{-}1)) = 0{,}14$$
$$Q_8\text{-}Q_4 > DQ$$

It can be argued that the alternative A_4 has a sufficient advantage over the alternative A_8, i.e. Slovenia. At the same time, the alternative A_2 meets the condition U2 because it is in the first place in all rankings. Given that it meets both conditions, it can be concluded that Latvia has the best environment for the development of female entrepreneurship in relation to other observed countries. At the same time, this country recorded the highest share of women in entrepreneurial activities.

Table 5 – Ranking based on the values of *QS*, *QR*, andQ_i (*v*=0.5)

Alternatives	QS	QR	Q (v=0,5)	Q (v=0,25)	Q (v=0,75)
A_1	1.0000	0.7183	0.8591	0.7887	0.9295
A_2	0.2736	1.0000	0.6368	0.8184	0.4552
A_3	0.6048	1.0000	0.8024	0.9012	0.7036
A_4	0.0000	0.0000	0.0000	0.0000	0.0000
A_5	0.5003	1.0000	0.7502	0.8751	0.6253
A_6	0.8912	1.0000	0.9456	0.9728	0.9184
A_7	0.5365	1.0000	0.7682	0.8841	0.6523
A_8	0.3240	0.5352	0.4296	0.4824	0.3768

Source: Author's calculation

We perform an analysis of the alternative A_8, second in the ranking Q_i *(v=0,5)*
Testing the condition U_1

$$Q_2\text{-}Q_8 = 0{,}6368\text{-}0{,}4296 > 0{,}14$$

The first condition was met, because the other alternative, A_8, has “sufficient advantage” in relation to the third-ranking alternative, A_2.

The condition U2 is fulfilled since the alternative occupies sufficiently stable second place because it is in the second place in all rankings. Therefore, from the viewpoint of the factors affecting the share of women in entrepreneurial activities, Slovenia occupies the second place. It is interesting to note that Slovenia, in comparison to other countries, records the lowest share of women in entrepreneurial activity, although it has extremely favorable factors for the development of female entrepreneurship, with the exception of cultural and social norms, where, based on the Global Entrepreneurship Monitor, it got one of the lowest ratings. The situation is similar when the existence of entrepreneurial education in the Slovenian education system is taken into consideration. By increasing the level of entrepreneurial education in primary and secondary schools, especially at universities, attitudes of the population would change, which would create

new employment opportunities and affect the development of female entrepreneurship. The least favorable environment for the development of female entrepreneurship is recorded in Poland, Croatia, and Hungary, which recorded lower share of women in entrepreneurial activity in comparison to other countries, except Slovenia. By improving institutional, as well as cultural factors, while improving transition indicator values, a better environment for the development of female entrepreneurship in these countries would be created.

Table 6 – Correlations between the factors affecting the participation of women in entrepreneurial activity and female entrepreneurial activity

Correlations

		Q_i (v=0,5)	Female entrepreneurial activity
Q_i (v=0,5)	Pearson Correlation	1	-0,602
	Sig, (2-tailed)		0,114
	N	8	8
Female entrepreneurial activity	Pearson Correlation	-0,602	1
	Sig. (2-tailed)	0,114	
	N	8	8

Source: Authors' calculations based on SPSS-17

Based on Pearson correlation coefficient, we can conclude that correlation between environment, consisting of the factors observed, and the share of women in entrepreneurial activity is not statistically significant, because Sig is greater than 0.05.

Conclusion

Entrepreneurship is an important factor of development in developed countries, as well as in countries in transition. As an important source of ideas and new jobs, it contributes to the increase in the national income and social welfare of each country. Current trends in the development of entrepreneurship indicate a growing share of women in entrepreneurial activity in almost all countries in the world. Some countries in transition have recognized the importance of the development of female entrepreneurship for solving a large number of economic and social problems. It is, therefore, essential that countries in transition pay special attention to factors that affect self-employment of women, i.e. the growth and development of female entrepreneurship.

Through the application of multi-criteria analysis, i.e. the application of VIKOR method, we performed the ranking of countries in transition, i.e. countries of Central Europe and the Baltic states, on the basis of factors that influence women's participation in entrepreneurial activities. We have proven our first hypothesis and, based on the analysis, we can conclude that the country that has the most favorable conditions for the development of female entrepreneurship has recorded the highest share of women in entrepreneurial activity, and that is Latvia. The least favorable environment for the development of female entrepreneurship has been recorded in Poland, Croatia, and Hungary, which record the highest level of female entrepreneurial activity. It is necessary that these countries take significant measures to stimulate self-employment of women, i.e. the establishment of new micro, small, and medium-sized enterprises by female entrepreneurs. Since Slovenia is in the second place in the rankings, i.e. given that it has a favorable environment for the development of female entrepreneurship, but also the lowest recorded share of women in entrepreneurial activities, it is necessary to take measures that will affect the institutional and cultural factors, in order to stimulate self-employment of women.

Except for Slovenia, although the observed countries with the most favorable environment for the development of female entrepreneurship record the highest share of women in entrepreneurial activity, and vice versa, countries with the least favorable environment for the development of female entrepreneurship record the lowest share of women in entrepreneurial activity, the second hypothesis has not been proven, because there is no strong positive correlation between the observed factors affecting the development of entrepreneurship and the observed share of women in entrepreneurial activities.

References

1. Acs, Z. J., Amoros, J. E. (2008). Entrepreneurship and competitiveness dynamics in Latin America. *Small Business Economics.* 31(3), pp. 305-322.
2. Aidis, R., Welter, F., Smallbone, D., Isakova, N. (2007). Female entrepreneurship in transition economies: the case of Lithuania and Ukraine. *Feminist Economics*. 13(2), pp. 157-183.
3. Anna, A. L., Chandler, G. N., Jansen, E., Mero, and N.P. (1999). Women business owners intraditional and non-traditional industries. *Journal of Business Venturing.* 15, pp. 279-303.
4. Anna, A. L., Chandler, G.N., Jansen, E., Mero, N. P. (1999). Women business owners intraditional and non-traditional industries. *Journal of Business Venturing.* 15, pp. 279-303.
5. Bregger, J. E. (1996). Measuring self-employment in the United States. *Monthly Labor Review*. 119 (1). pp. 3-9.
6. Brunner, H. P. (1993). The development experience and government policies in South-East Asia with respect to small firms: Lessons for Eastern Europe?, in: Acs, Z.J. and D.B. Audretsch (eds), *Small Firms and Entrepreneurship – An East-West Perspective*, Cambridge: Cambridge University Press.
7. Carree, M. A., Van Stel, A. J., Thurik, A. R., Wennekers, A. R. M. (2002). Economic development and business ownership: an analysis using data of 23 OECD countries in the period 1976-1996. *Small Business Economics.* 19 (3), pp. 271-290.
8. Čupić, M., Tummala, R., Suknović, M. (2001). *Odlučivanje: formalni pristup*, Beograd: Fakultet organizacionih nauka.
9. Delmar, F. (2003). Women entrepreneurship: assessing data availability and future needs, paper for the workshop "Improving Statistics on SMEs and Entrepreneurship", OECD, Paris, 17-19 September 2003. http://www.oecd.org/std/business-stats/14723090.pdf (accessed 12.06.2015)
10. Diakoulaki, D., Mavrotas, G., Papayannakis L. (1995). Determining objective weights in multiple criteria problems: the CRITIC method. *Computers and Operations Research*. 22, pp. 763-770.
11. EBRD Transition Report (2014). http://www.ebrd.com/downloads/research/transition/ (accessed 15.06.2015.)
12. Faggio, G., Silva, O. (2014). Self-employment and entrepreneurship in urban and rural labour markets. *Journal of Urban Economics.* 84, pp. 67–85
13. Fuduric, N. (2009). *Formal Institutions & Environmental Factors Framing Entrepreneurship in Croatia*. Doctoral Research Paper. Department of Planning and Development, Aalborg University, Aalborg, Denmark.
14. Global Entrepreneurship Minitor, http://www.gemconsortium.org/data (accessed 18.06.2015.)
15. Hofstede, G. (1980). *Culture's Consequences: International Differences in Work- Related Values*, Beverly Hills CA: Sage Publications.
16. Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*, London: McGraw-Hill.

17. International Labour Organization, http://www.ilo.org/dyn/sesame/IFPSES.SocialDatabase. (accessed 23.06.2015.)
18. Marshall, A. (1890). *Principles of Economics,* Revised ed., 1920. London: Macmillan and Cob Ltd.
19. Morris, M. H. (1998). *Entrepreneurial Intensity: Sustainable Advantage for Individuals, Organizations and Societies*. Quorum, Westport: CT.
20. Opricović, S., Tzeng, G. (2007). Extended VIKOR method in comparison with outranking methods. *European Journal of Operational Research*. 178(2), pp. 515.
21. Reynolds, P. D., Bygrave, W. D., Autio, E., Cox, L.W., Hay, M. (2002). *Global Entrepreneurship Monitor*, *2002 Executive Report*. Babson College, London Business School and Kauffman Foundation.
22. Reynolds, P., Hay, M, Camp, S. M. (1999). *Global Entrepreneurship Monitor*, *1999 Executive Report.* Paul D. Reynolds, Michael Hay and Kauffman Center for Entrepreneurial Leadership at the Ewing Marion Kauffman Foundation.
23. Schultz, T.P. (1990). Women's changing participation in the labor force: a world perspective, *Economic Development and Cultural Change* 38 (3), pp. 457-488.
24. Schumpeter, J. (1921). *The Theory of Economic Development*. Cambridge: Harvard University Press.
25. Smallbone, D., Welter, F. (2001). The Distinctiveness of Entrepreneurship in Transition Economies. *Small Business Economics.*16(4), pp. 249-262.
26. Smallbone, D., Welter, F. (2006). Conceptualizing entrepreneurship in a transition context. *International Journal of Entrepreneurship and Small Business* 3(2), pp.190-206.
27. Smallbone, D., Welter, F. (2009). *Entrepreneurship & Small Business Development in Post-Socialist Economies.* London & New York: Routledge.
28. Thurik, A.R., Wennekers, A. R. M., Uhlaner, L. M. (2002). Entrepreneurship and Economic Performance: a macro perspective. *International Journal of Entrepreneurship Education.* 1(2), pp. 157-179.
29. Veciana, J. M. (1999). Entrepreneurship as a scientific research programme. *Revista Europea de Dirección y Economía de la Empresa.* 8 (3), pp. 2-10.
30. Ward, K.B., Pampel, F.C. (1985). Structural determinants of female labor force participation in developed nations, 1955-1978. *Social Science Quarterly* 66(3). pp. 654-667.
31. Welter, F., Smallbone, D., Isakova, N., Aculai, E., Schakirova, N. (2004). Female entrepreneurship in the Ukraine, Moldova and Uzbekistan: Characteristics, Barriers and Enabling Factors and Policy Issues" in UNECE (eds.) *Access to Financing and ICT: Women Entrepreneurs in the ECE Region*, pp. 93-52, Geneva: United Nations.
32. Wennekers, A.R.M., Thurik, F.C. (1999). Linking entrepreneurship and economic growth, *Small Business Economics*, 13 (1), pp. 27-55.
33. Whitley, R. (1992). *European Business Systems; Firms and Markets In Their National Contexts*, London: Sage Publications.
34. World Bank Development Indicators Database. (2012–2014). http://data.worldbank.org/data-catalog/worlddevelopment-indicators. (accessed 10.06.2015.)

DOMINANT MOTIVES OF ENTREPRENEURIAL BEHAVIOR IN TRANSITIONAL COUNTRIES

Božidar Leković[285], PhD, Full Professor

Slobodan Marić[286], PhD, Teaching Assistant

"In order to completely destroy the classes, we must not only overthrow the exploiters, landlords and capitalists... we must overthrow small commodity producers (entrepreneurs), but they cannot be banished: they cannot be destroyed; we must coexist with them and reform them" – this quotation testifies to the strength of entrepreneurial will!

V. I. Lenjin

Abstract

For appearing and developing of entrepreneurship, individuals with all the characteristics of personalities important for entrepreneurial behavior are equally necessary, but also the environmental, general and economic conditions that are oriented to entrepreneurs, so the entrepreneurial process could exist and function at the level being significant for any national economy. In this work, we want to show how transition environment encourages entrepreneurial activities in relation to other groups of countries, more or less developed.

The basis goal of this work is cognition of fundamental entrepreneurial motives (necessity and opportunity) depending on general social and entrepreneurial opportunities according to the stages of entrepreneurial process. The work presents results of the analysis of selected variables previously cited appearances based on data from the GEM project for countries classified into three main groups according to the stages of economic development. To compare groups and establish differences, one-factor analysis of variance was used, while relationships and connections between selected features of development degrees, entrepreneurial activities and motives of entrepreneurial projects were analyzed by the Pearson correlation coefficient. The analysis of available data and selected features confirmed a great dependence of motives of entrepreneurial projects and conditions of the environment of different development degrees that determine differences to all observed features directly or indirectly connected with entrepreneurial decisions.

Key words:*Entrepreneurship, Motives, Necessity, Opportunity, Transition*

[285] Department for Management, The Faculty of Economics Subotica, University of Novi Sad, Segedinski put 9 – 11, 24000 Subotica, Republic of Serbia, bolesu@ef.uns.ac.rs

[286] Department for Management, The Faculty of Economics Subotica, University of Novi Sad, Segedinski put 9 – 11, 24000 Subotica, Republic of Serbia, marics@ef.uns.ac.rs

Introduction

With the processes of concentration and centralisation of capital, and massification of production, which characterised the period of the 19th century, the role and position of independent entrepreneurial enterprises becomes marginal. In such an environment, independent entrepreneurial enterprises (small enterprises) fill in the gaps in the mosaic of economic structure, opting for individual production with high participation of live labour, where large-scale industry had no interest. The above mentioned orientation of small enterprises, which was relevant in the historical period of development, still features as an area with great opportunities for the development of entrepreneurship. The first cases of separating ownership from management and the first forms of money-lending are stated as key moments in the emergence and development of independent entrepreneurship and small enterprises. Separation of ownership from management emerged as a consequence of increase in the volume and complexity of operation. The owners detach themselves from the working process and employ experts, professionals, whose knowledge and skills meet the requirements of tasks and operations for which they are employed.

This process of separating of ownership from property occurred gradually, in the following iterations:

- the owner stops managing the property, but retains the right of ownership, manifested through possessing shares in an incorporated company;
- the owner is temporarily separated from property, but is reunited with it at the end of a certain period, while receiving rent for the given period;
- the owner is permanently separated from property, receiving preferred shares in return (Jojić, 1973).

The development of entrepreneurship is influenced not only by the separation of ownership from management, but by investment process itself, which started developing with the first forms of money lending. What we can identify as making a significant impact on the development of entrepreneurship is the stability of the value of money, which was mostly provided through long-term loan agreements, guaranteeing the payment of the fixed amount. These processes were intensely developed in the 18th, 19th and the 20th century – the period which saw the crystallisation of two groups of people, referred to investors and business people. Investors and business people have opposing interests, which still remain in force in incorporated companied, and are related to the conflict of interest between managers and shareholders.

A very important role in this process is played by the value of money, which, if stable, does not harm investors with long-term loan agreements and fixed remuneration. “In the period of change, when prices grow, entrepreneurs receive a favourable opportunity to increase profit, because purchases occur at more favourable prices. ... The decline in the value of money results in the discouragement of investment and decline in entrepreneurial activities. It affects them in such a way that they are reluctant to undertake a long-term production process which demands investment of money long before the possibility of return. Rather than only ‘profiteers’, the burning issue is unemployment (Keynes, 1937).” The above cited Keynes’ opinion speaks about another essential condition for the development of entrepreneurship, that is, stability of the value of money, which, if absent, influences negatively.

Socialism collapsed in the east because three most important human rights were not respected: religion, freedom and property (Zlatković, 1994). “...people do not work, do not produce, do not buy and do not sell for the benefit of others, nor to enhance society as such, but for their own interest, and thus, at the same time, not intending and not knowing, they advance the interest of society and enlarge the social wealth ...; only the individuals’ absolute freedom to do as they think is best for them and their competition with other, likewise free individuals to pursue their own

interest in the struggle for scarce goods results in the natural order of freedom which inevitably leads to the advancement and benefit of humanity." (Smith). Smith firmly believed that all one has to do on the path to progress is remove obstacles and hindrances used by the state and its regulation to limit the natural order, the best for all; "as a specific feature of nature and product of society, man accepts this society only if it does not prevent him to use his work, skill and knowledge, to be venturous, and that thwarting his wealth based on work and ability represents an obvious obstruction of a basic human right and hindering the liberation of his existence" (Jojić, 1973).

The above quotations feature as parallel representation of the basic economic (entrepreneurial) motives stimulating in an individual the interest to initiate individual entrepreneurial enterprise and essential environmental preconditions for initiating and developing entrepreneurship. Thus, we can state that the basic preconditions and motives of development of entrepreneurship have no temporal limitations, which implicates the basic research question within this topic: how does the passage of time influence the development of entrepreneurship, especially the transformation of social, economic and political system?

1. Transition and entrepreneurial motives – theoretic foundation of the paper

Holistic definition of Transition including next events, alongside the liberalization of prices and the creation of market institutions, the transformation of centrally planned into market economies involves the development of a privately owned business sector, through a combination of the privatization of former state-owned companies and the creation of completely new enterprises (Smallbone and Welter, 2006). Transition from one economic system to another has created unique opportunities for entrepreneurs to create new businesses that fill voids in the structure of industry and services (Estrin et al., 2006). Entrepreneurs in transition economies build their businesses in view of high uncertainty and a not very supportive institutional environment. As McMillan and Woodruff (2002) argue, entrepreneurs in transition economies "succeeded by self-help: they built for themselves substitutes for the missing institutions. Despite the significant role that the business environment plays for the development of entrepreneurship in terms of volume and structure, it is also necessary to include the human aspect of entrepreneurship in the form of the motive of entrepreneurial personality for initiating the entrepreneurial process

1.1 Transition as a social process, business environment and condition for entrepreneurship development

Transition in most former socialist countries, especially our country, did not represent a commitment, but rather an escape from the past, and a search for a solution for a deep social, political, economic and social crisis. Such an approach to the reform of social and economic system contributed to the emergence of "transitional recession" reflected in the decline in the population's living standards, rise in inflation, instability of foreign exchange rates, rise in foreign trade deficit, rise in unemployment and other macroeconomic indicators, which showed only negative trend. The burning issue in transition countries is, by all means, growing unemployment caused by the demise of huge enterprises in state and public ownership (Drnovsek, 2002).

The main cause of the economic collapse at the beginning of the transition period that befell all the countries of Central and Eastern Europe and former Soviet republics, including our country, is the huge pressure of simultaneous impact of the following factors:

- Inflation, which was characteristic of almost all countries, caused by strict programmes of stabilisation and adjustment aimed at ending inflation in the shortest possible period, balancing the budget, closing gaps in balances of payments, price liberalisation aimed at removing disparities, combined with deflationary policies, resulted in a fall in production;

- Abandoning the centralised planning system of management without setting up a market-based mechanism led to an undefined condition of the economies of these countries, which is something different from the Chinese transition;
- Liberalisation of imports resulted in suffocation of domestic production;
- Privatisation of state and public property – with a multitude of uncertainties – represents a long-term process which blocked investment and slowed down the existing production;
- After the disintegration of the COMECON system, the socialist countries lost a huge market (Avramović, 1994).

A well-developed entrepreneurial sector provides all the benefits to an economy, like in mature market economies (Aidis, 2005), which means that there is no difference between the role of entrepreneurship and characteristics of small enterprises in relation to the level of economic development (Smallbone and Welter, 2001). The role and characteristics of entrepreneurial development, identical but different types and phases of entrepreneurship may impact economic growth differently in different parts of the world (Sternberg and Wennekers, 2005). The state is also responsible for the creation of a favourable economic environment at all levels (Smallbone et al., 2010), under the obligation to provide an appropriate institutional, legal and cultural framework, as the external environment is one of the essential preconditions for the development of entrepreneurship both in transition countries and in countries of developed market economy (Smallbone and Welter, 2001).

The basic tasks set before an economy in the process of transition to market economy stated by Russian and American professors in textbooks for academies and faculties of economics in Russia are the following:

- Stripping of statehood and privatisation of economy, and development of entrepreneurship. Stripping of statehood in this context implies releasing from the functions of direct governance of economy and their delegation to enterprises, but without change in the character of property;
- Formation of market infrastructure, a new mechanism of establishing economic relations, including commodity markets;
- Demonopolisation of economy, a highly important prerequisite for development f competition and achieving market balance;
- Liberalisation of prices, removing the state control in price formation, transition to pricing based on supply and demand;
- Financial and economic stabilisation through rigorous credit and monetary policies, by limiting the volume of money supply;
- A strong welfare system, which would facilitate the adaptation of a part of population to the conditions of market economy;
- Social reorientation of economy based on active structural investment policy towards a faster development of consumer goods and services, and increase in the flexibility of production and its adaptation in accordance with the changes in demand and technological advances (Gužalić, 1999).

It is quite justified that the first place is taken up by privatization and development of entrepreneurship as the essential task in carrying out the transition process, if we remind ourselves that one of the main reasons for the crisis and inefficiency of the socialist system was the issue of property. Entrepreneurship and privatisation are mutually conditioned and connected factors. Privatisation is the first condition that needs to be met in order to provide the development of entrepreneurship and private initiative, while, on the other hand, entrepreneurship and establishing small enterprises encourages and accelerates the process of privatisation, restructuring of large enterprises and building the market. Also, all the listed tasks of the transition process represent the required conditions for development of entrepreneurship as a factor of economic development.

The positions of the following prominent theoreticians may serve when defining the factors for development of entrepreneurship. Say argues that all an entrepreneur must possess is ability, while the necessary capital can be borrowed. Marshall fully agrees with this position, adding that entrepreneurial activity is much easier to organise if own capital is available. Schumpeter is the first author to distinguish between innovators and entrepreneurs, and is therefore regarded as the "father of entrepreneurship". In his opinion, capital can be borrowed, entrepreneurship can be learned, and the only necessary element is motivation or will to become an entrepreneur. The contemporary approach to the entrepreneurship development factors does not rank factors by importance; they are all equally important, as: start-up capital, entrepreneurial ability, and motivation to become an entrepreneur.

Undoubtedly, numerous recent articles in this area point out entrepreneurship and the SME sector as the most efficient instrument for the transformation of former socialist countries from centrally planned to market economies (Smallbone & Welter, 2001). The discussion shows that entrepreneurship in a transition context is not unique, as the essential principles of individual behaviour are the same regardless of the environment. However, where the process of entrepreneurship is distinctive is with respect to the specific interplay between individual entrepreneur/firm behaviour and the external environment, which changes as the process of transition unfolds (Smallbone & Welter, 2006).

1.2 Entrepreneurial motives in transitional countries

Some of the so far presented models imply the existence of two different business processes based on and supported by the arguments of scholars in the area of entrepreneurship, predominantly of Austrian school, including Schumpeter (1934), Kirzner (1997), but other economists as well who have recognised the role of entrepreneurship in economic development, such as Leibenstein (1968), Baumol (2002) and Acs (2004). The basis of both sets of conditions is in the model of social cultural, and political context, or as Leibenstein (1968) terms them, "socio-cultural and political limitations". These fundamental factors can imply national culture or universal values (Smith, Petersen and Schwartz, 2002), national wealth in terms of the government's ability to support direct entrepreneurial environment, a kind of political economic system. Furthermore, these circumstances can refer to population growth (Hunt and Levie, 2004) and economic growth rate (Lundstrom and Stevenson, 2005).

Schumpeter's entrepreneur disrupts the state of economic balance through a process of innovation, whereas an alternative view of entrepreneurship and economic growth comes from another set if Austrian economists such as Ludwig von Mises (1949), Hayek (1978) and Kirzner (1997), who point out the role of entrepreneur as the inventor of favourable market conditions, stating that "in any real and real-life economy, any participant is always an entrepreneur" (Mises, 1949, Kirzner, 1997). It follows from this that the basic question is not who entrepreneurs are, but what they do, within which conditions, and with which consequences (Murphy et al., 1991, Baumol, 1996., Shane and Venkataraman, 2000).

In a transition context, the Kirzner type of opportunities would be more apparent in later stages of transition, where markets have been developed and flows of information, ideas and knowledge from mature market economies represent an important source of innovation for enterprises (Smallbone *et al*., 2002). It is reflected in empirical surveys in more advanced transition countries, where entrepreneurs complain about growing competition as one of their pressing business problems (*e.g.*, Smallbone *et al.*, 1999b; Smallbone and Welter, 2003b). By contrast, in early-stage transition countries it is the lack of resources needed to realise an entrepreneur's business idea, together with a lack of institutional stability and unpredictability of institutional behaviour, that is emphasised (*e.g.*, Smallbone *et al.*, 2002; Welter *et al*., 2003). Moreover, because

the pursuit of entrepreneurial opportunity is an evolutionary process in which people select out at many steps along the way, decisions made after the discovery of opportunities—to positively evaluate opportunities, to pursue resources, and to design the mechanisms of exploitation—also depend on the willingness of people to ‘‘play’’ the game (Shane et al., 2003). They say also, that human motivations influence these decisions, and that variance across people in these motivations will influence who pursues entrepreneurial opportunities, who assembles resources, and how people undertake the entrepreneurial process. Aldrich and Zimmer (1986), for example, write, entrepreneurial activity ‘‘can be conceptualized as a function of opportunity structures and motivated entrepreneurs with access to resources’’. All human action is the result of both motivational and cognitive factors, the latter including ability, intelligence, and skills (Locke, 2000). We also assume that entrepreneurship is not solely the result of human action; external factors also play a role (e.g., the status of the economy, the availability of venture capital, the actions of competitors, and government regulations (Shane et al., 2003). Moreover, the incentives for innovation and efficiency were notoriously weak under communism (Hayek 1945) so reformers in the transition economies have been also greatly concerned with Schumpeterian entrepreneurship (Schumpeter 1934). Thus, the characteristics of entrepreneurs and their economic impact cannot be assumed to be the same as those in Western countries (Smallbone and Welter 2004).

Motives and personal characteristics, distinguishing first and foremost between needs – based and opportunity – driven entrepreneurship. The needs – based or survival motive induces people who set up a business to earn a living or a proper income where other forms of employment (and social welfare) are scarce. Opportunity driven entrepreneurs follow more intrinsic motives such as to be independent, to implement an idea, a technology, or to make a contribution to society, and are more typical for developed countries. The Global Entrepreneurship Monitor (GEM 2003) suggests that in Eastern Europe few entrepreneurs are driven by needs-based motives. In contrast to GEM (2003), Smallbone and Welter (2001) observe a large proportion of start-ups being motivated by push factors. Scase (2003) offers a different dichotomy, namely by entrepreneurs’ commitment to business growth. He argues that in transition economies a large proportion of business owners are “proprietors” who use profits for private consumption rather than reinvest into business. According to these authors, entrepreneurship is characterized by the reinvestment of business profits for the purpose of business growth and ultimately further capital accumulation, while proprietorship is characterized by the consumption of surpluses generated (Scase 2003). Thus even though SMEs numbers may be high, they do not necessarily constitute a growth engine, as their motivation is different from that of their West European counterparts (Estrin et al., 2006). Necessity versus opportunity (or push versus pull) entrepreneurship is largely determined by the level of economic development in the long run and the actual state of the economy in the short run (Minniti et al. 2006; Audreatsh et al. 2005). Necessity entrepreneurs predominate in the developing country context where lack of other alternatives pushes individuals to engage in entrepreneurial activity. In contrast, opportunity entrepreneurs are individuals who feel pulled into entrepreneurship due to the desire to apply a marketable idea or to apply their skills to starting a business venture (Aidis, 2005). However authors such as Welter et al. (2004) and Aidis et al. (2004) urge a more dynamic view be taken which recognizes the learning capacity of individuals over time (particularly where considerable human capital is involved), as well as possible changes in external circumstances. Both can lead to changes in the aspirations of individuals and their ability to spot and exploit new business opportunities.

2. Data and methodology

We shal anayze the sample of 55 countries classified in four subsamples in relation to the degree of development according to the methodology of the World Economic Forum: Group 1 – Factor-driven economics, Group 2 –efficiency-driven economies, Group 3 – Innovation-driven and Group 4 – Efficiency-driven transitional economies. The subgroup within the framework of

efficiency-driven economies was formed, to authors' determination, under the name of efficiency-driven transitional economies. It was done to carry out an analysis to selected features in relation to other groups. As the source for GDP characteristics per capita in US$, we used the data from the International Monetary Fund, World Economic Outlook Database, October 2010. Criteria to select countries for the sample were data availability for every country according to chosen variables. To the same criteria, the year to be observed was chosen; in this case, it is 2011 because in this year, the number of 55 countries was provided in the sample, as well as satisfying structure in subsamples.

Observed variables, development degree represented as GDP per capita in US$ and motive of entrepreneurial behavior are the features or variables. They make together the research space in this work. The feature – development degree, represented as GDP per capita in US$ in relation to those for sample division are the criterion feature.

These indicators are the result of methodology and research of the GEM project. In 2011, the GEM project included 55 countries which were included as the sample in this work, according to the established criteria. The database for chosen indicators, besides many others, which also were the result of this project, is GEM 2011 Adult Population Survey Country, version 3b. All these indicators are defined as percentage of adult population (18 – 64 years old) involved in some phase of the entrepreneurial process or activity being researched.
Hypothesis definition for applied procedures is carried out in the following way:
By the procedure of ANOVA the hypothesis is tested:

H0: There is difference between subsamples (defined group of countries) to motives of entrepreneurial behavior
By the procedure of Multiple Comparisons for observed characteristics/variables – Tukey HSD, the hypothesis is tested

H1: Significant difference between some subsamples to motives is a direct consequence of level of economic development.

3. Research results and discussion

As the result of the analysis relating to prevailing motive of entrepreneurial behavior, represented by selected variable, according the degree of economic development, measured by GDP per capita in USD Purchasing Parity Power Basis what represent defined group of countries with specific observation Transitional group of countries, we got the results of ANOVA analyses represented in Table 1. From the analysis of received results, we can draw a conclusion, relating to indicators of the motives of entrepreneurial behavior which are direct consequence of achieved level of economic development. It is expected that the indicators of opportunity motives and negative motives do not deviate from the logical to the now established tendency.

With the features Tea and Opportunity motive, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 447.747) = 11.177$, $p = .000$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of medium expressed by means of the indicator eta square is 0.4. The subsequent comparison by means of the value Turkey HSD test points to that the group of countries named as Factor Driven Economies differ differently from Innovation Driven Economies with positive difference. Group of Countries with lower level development have a bigger scope entrepreneurial activities and also opportunity motive. We have same situation between Efficiency Driven and Innovation Driven, than Efficiency Driven and Transitional Efficiency Driven, what that mean the Transitional Efficiency Driven Countries have higher level of

economic development than other efficiency driven countries. This factor is cause differences in motives of entrepreneurial behavior between defined and analyzed group of countries.

With the features TEA and Necessity motive, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 141.186)= 14.415$, $p= .000$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of medium expressed by means of the indicator eta square is 0.46. The subsequent comparison by means of the value Turkey HSD test points to that the group of countries named Factor Driven Economies differ differently from Innovation Driven Economies with positive difference and with Transitional Efficiency Driven Economies also with positive difference. Than Efficiency Driven and Innovation Driven with positive difference. In this analyze, Necessity motive of Entrepreneurial Behavior has a same tendency as Opportunity, we have one more cause for conclusion that only factor of Entrepreneurial Behavior is level of Economic Development of Country, but not features like Transition of Society.

With the features TEA and Improvement Driven Opportunity motive, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 3418.132)= 7.229$, $p= .000$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of small expressed by means of the indicator eta square is 0.30. The subsequent comparison by means of the value Turkey HSD test points to that the group of countries named as Innovation Driven Economies differ differently from all others observed group of countries with positive difference. This variable represents specific and small part of Opportunity motive and typical for higher development countries like Opportunity motive: Independence

With the features Opportunity motive: increase income, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 849.611)= 2.939$, $p= .042$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of small expressed by means of the indicator eta square is 0.15.

With the features Opportunity motive: independence, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 1252.793)= 5.537$, $p= .002$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of small expressed by means of the indicator eta square is 0.25.

Table 1. ANOVA analysis for observed characteristics/variables

		Sum of Squares	df	Mean Square	F	Sig.
% 18-64 pop [7/10] TEA and Opportunity motive	Between Groups	447,747	3	149,249	11,177	,000
	Within Groups	681,015	51	13,353		
	Total	1128,762	54			
% 18-64 pop [7/10] TEA and Necessity motive (entr because of no better choice for work)	Between Groups	141,186	3	47,062	14,415	,000
	Within Groups	166,504	51	3,265		
	Total	307,690	54			
% 18-64 pop [7/10] TEA and Improvement Driven Opportunity motive	Between Groups	3418,132	3	1139,377	7,229	,000
	Within Groups	8037,736	51	157,603		
	Total	11455,868	54			
% within TEA [7/10] Opportunity motive: increase income	Between Groups	849,611	3	283,204	2,939	,042
	Within Groups	4914,352	51	96,360		
	Total	5763,963	54			
% within TEA [7/10] Opportunity motive: independence	Between Groups	1252,793	3	417,598	5,537	,002
	Within Groups	3846,054	51	75,413		
	Total	5098,847	54			
% within TEA [7/10] Non-opportunity motive: necessity/maintain income	Between Groups	3240,793	3	1080,264	9,046	,000
	Within Groups	6090,654	51	119,425		
	Total	9331,447	54			
% within TEAOPP [7/10] Opportunity Type: Independence	Between Groups	596,743	3	198,914	1,282	,291
	Within Groups	7757,171	50	155,143		
	Total	8353,915	53			
% within TEAOPP [7/10] Opportunity Type: Increase Income	Between Groups	1910,859	3	636,953	4,139	,011
	Within Groups	7694,062	50	153,881		
	Total	9604,920	53			
% within TEAOPP [7/10] Opportunity Type: Maintain Income	Between Groups	183,626	3	61,209	1,543	,215
	Within Groups	1982,952	50	39,659		
	Total	2166,578	53			
% within TEAOPP [7/10] Opportunity Type: Other (incl family business), no answer	Between Groups	516,134	3	172,045	5,691	,002
	Within Groups	1511,520	50	30,230		
	Total	2027,653	53			

Source: Author's calculation

With the features Non-opportunity motive: necessity/maintain income, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 3240.793)= 9.046$, $p= .000$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of medium expressed by means of the indicator eta square is 0.35. Here, we have logical opposite results than before, in case of Factor driven economies with all others group of countries with positive difference.

With the features Opportunity Type: Independence, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 596.743)= 1.282$, $p=.291$, what that mean there isn't significance difference of mean between groups.

With the features Opportunity Type: Increase Income, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 1910.859)= 4.139$, $p=.011$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of small expressed by means of the indicator eta square is 0.2.

With the features Opportunity Type: Maintain Income, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 183.626)= 1.543$, $p=.215$, what that mean there isn't significance difference of mean between groups.

With the features Opportunity Type: Other (incl family business), no answer, statistically significant difference is established at the level $p < .05$ between three groups of countries $F(3, 516.134)= 5.691$, $p=.002$, what that mean there is significance difference of mean between groups. The real difference between medium values of groups is at the level of small expressed by means of the indicator eta square is 0.25.

Conclusion

With all the analyzed groups of countries, as well as with separated group of transitional countries within the framework of efficiency-driven economies, some specifies to all observed characteristics are identified. All the applied statistical procedures point to the previous assertion, by means of which we obtained the presented results with significant differences, precise limits of separation, characteristics and homogeneity of the groups of countries, as well as their mutual distances. It contributed to all observed characteristics at the level of economic development (as criterion), the scope and structure of entrepreneurial activities and economic growth.
This means that we have in this study achieved the following results:

- From the analysis of received results, we can draw a conclusion, relating to indicators of the motives of entrepreneurial behavior which are direct consequence of achieved level of economic development. It is expected that the indicators of opportunity motives and necessity motives do not deviate from the logical to the now established tendency. Transition of Society generate specific condition and have some typical features but there is not direct link with motive of entrepreneurial behavior.

In this way reached level of economic development measured by GDP per capita represents a very complex, strong and reliable indicator of the social-economic potential of a country, regarding to the capabilities for creating growth and development, as defined by the World Economic Forum methodology and the Global Competition Index. As entrepreneurship is also a social and economic phenomenon, it becomes the direct consequence of the previous conclusion.

References

1. Acs, Z., & Storey, D. (2004). Introduction: Entrepreneurship and economic development;
2. Aidis, R. (2005), "Institutional Barriers to Small- and Medium-Sized Enterprise Operations in Transition Countries", *Small Business Economics* 25, 305-318;
3. Aidis, R. (2005). Entrepreneurship in transition countries: A review;
4. Aldrich, H., & Zimmer, C. (1986). Entrepreneurship through social networks. In D. Sexton, & R. Smilor (Eds.), The art and science of entrepreneurship (pp. 3–23). Cambridge, MA: Ballinger;
5. Audretsch, D. B., Carree, M. A., Thurik, R., & Van Stel, A. J. (2005). Does self-employment reduce unemployment?;
6. Baumol, W. J. (1996). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Business Venturing*, *11*(1), 3-22;
7. Baumol, W. J. (2002). *The free-market innovation machine: Analyzing the growth miracle of capitalism*. Princeton university press;
8. Drnovsek, M. (2002), „Job Creation Process in Transition Economy", *Small Business Economics*, 23, 179-188;
9. Estrin, S., Meyer, K. E., & Bytchkova, M. (2006). Entrepreneurship in transition economies. *The Oxford Handbook of Entrepreneurship, Oxford University Press: Oxford*;
10. Gužalić, M. (1999) *Preduzetnik – preduzetništvo i biznis*, Beograd;

11. Hayek, F. A., & Hayek, F. A. (1978). *Denationalisation of Money: The argument refined* (pp. 119-20). London: Institute of Economic Affairs;

12. Jojić, R. (1973), „Preduzetništvo dileme i zablude jugoslovenske teorije i prakse upravljanja», specijalni prilog časopisa“, *Direktor*, Niro, Beograd;
13. Kejns, Dž., M. (1937 „Ekonomki eseji“, Matica srpska , Beograd;
14. Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of economic Literature*, 60-85;

15. Leibenstein, H. (1968). Entrepreneurship and development. *The American Economic Review*, 72-83;

16. Levie, J., & Hunt, S. (2004). Culture, institutions and new business activity: Evidence from global entrepreneurship monitor. *Frontiers of entrepreneurship research*.;

17. Locke, E. A. (2000a). Motivation, cognition and action: an analysis of studies of task goals and knowledge. Applied Psychology: An International Review, 49, 408–429;
18. Lundström, A., & Stevenson, L. (2005). *Entrepreneurship policy: Theory and practice*. New York: Springer Science+Business Media;

19. McMillan, J., and Woodruff, C. (2002): The Central Role of Entrepreneurs in Transition Economies, *Journal of Economic Perspectives* 16(3): 153-170;
20. Minniti, M., Bygrave, W., & Autio, E. (2006). Global Entrepreneurship Monitor — 2005 Executive Report. Wellesley, MA/London: Babson College and London Business School
21. Mises, L. V. (1949). *Human action*. Ludwig von Mises Institute;

22. Murphy, G. B., J. W. Trailer & R. C. Hill (1996), 'Measuring Performance in Entrepreneurship Research', *Journal of Business Research* 36, 15–23;
23. Scase,R. (2003): Entrepreneurship and Proprietorship in Transition: Policy implications for the SME sector. In McIntyre, R.J;
24. Schumpeter, J.A. (1934) *The Theory of Economic Development*, Cambridge, MA: Harvard University Press;

25. Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, *25*(1), 217-226;

26. Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation.*Human resource management review*, *13*(2), 257-279;

27. Smallbone, D. & F. Welter, 2001, "The Role of Government in SMEs Development in Transition Economies", *International Small Business Journal* 19, 63-77;
28. Smallbone, D. & Welter, F. (2003b) 'Institutional development and the policy context for entrepreneurship in the transition economies of central and eastern Europe and the former Soviet Union', *Paper Presented at the World Conference of the International Council for Small Business (ICSB)*, Belfast, June;

29. Smallbone, D., & Welter, F. (2006), "Conceptualising entrepreneurship in a transition context", *International Journal of Entrepreneurship and Small Business*, 3(2), 190-206;
30. Smallbone, D., F. Welter, A., Voytovich, I. Egorov, (2010) "Government and entrepreneurship in transition economies: the case of small firms in business services in Ukraine", *The Service Industries Journal* 5, 655-670;
31. Smallbone, D., Welter, F., Isakova, N., Klochko, Y., Aculai, E. & Slonimski, A. (1999b) 'The support needs of small enterprises in the Ukraine, Belarus and Moldova: developing a policy agenda', *Final Report to TACIS (ACE) Committee (Contract no. T95 4139R)*;

32. Smallbone, D., Welter, F., Voytovich, A. & Egorov, I. (2002) 'Innovation and the role of small businesses in the business services sector in Ukraine', *Paper Presented at Rent XVI*, Barcelona, Spain, 21–22 Novembe;

33. Smith, P. B., Peterson, M. F., & Schwartz, S. H. (2002). Cultural Values, Sources of Guidance, and their Relevance to Managerial Behavior A 47-Nation Study. *Journal of cross-cultural Psychology*, *33*(2), 188-208;

34. Sternberg, R. & A.R.M. Wennekers (2005). "The Determinants and Effects of New Business Creation Using Global Entrepreneurship Monitor Data", *Small Business Economics*, 24(3), 193-203;

35. Welter, F., Smallbone, D., Aculai, E., Isakova, N. and Schakirova, N. (2003) 'Female entrepreneurship in post Soviet countries', in J. Butler (Ed.) *New Perspectives on Women Entrepreneurs*, *Research Series in Entrepreneurship and Management*, Greenwich: Information Age, Vol. 3, pp.243–270;

36. Zlatković, Ž. (1994), *Strategijska vizija razvoja zemlje u tranziciji*, Niš.

Apendix 1. Multiple Comparisons for observed characteristics/variables

Tukey HSD

Dependent Variable	(I) COUNTRY GROUP GCR REPORT 4 CAT	(J) COUNTRY GROUP GCR REPORT 4 CAT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
% 18-64 pop [7/10] TEA and Opportunity motive	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	-1,87345	1,59980	,648	-6,1222	2,3753
		Stage 3: innovation driven	4,42581*	1,51823	,026	,3937	8,4579
		Stage 2a: Transitional efficiency driven	4,47567	1,69797	,052	-,0338	8,9851
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	1,87345	1,59980	,648	-2,3753	6,1222
		Stage 3: innovation driven	6,29926*	1,23535	,000	3,0184	9,5801
		Stage 2a: Transitional efficiency driven	6,34912*	1,45057	,000	2,4967	10,2016
	Stage 3: innovation driven	Stage 1: factor driven	-4,42581*	1,51823	,026	-8,4579	-,3937
		Stage 2: efficiency driven	-6,29926*	1,23535	,000	-9,5801	-3,0184
		Stage 2a: Transitional efficiency driven	,04987	1,36007	1,000	-3,5622	3,6620
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	-4,47567	1,69797	,052	-8,9851	,0338
		Stage 2: efficiency driven	-6,34912*	1,45057	,000	-10,2016	-2,4967
		Stage 3: innovation driven	-,04987	1,36007	1,000	-3,6620	3,5622
% 18-64 pop [7/10] TEA and Necessity motive (entr because of no better choice for work)	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	1,48905	,79104	,248	-,6118	3,5899
		Stage 3: innovation driven	4,40438*	,75071	,000	2,4106	6,3981
		Stage 2a: Transitional efficiency driven	2,76984*	,83958	,009	,5401	4,9996
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	-1,48905	,79104	,248	-3,5899	,6118
		Stage 3: innovation driven	2,91533*	,61083	,000	1,2931	4,5376
		Stage 2a: Transitional efficiency driven	1,28079	,71725	,292	-,6241	3,1857
	Stage 3: innovation driven	Stage 1: factor driven	-4,40438*	,75071	,000	-6,3981	-2,4106
		Stage 2: efficiency driven	-2,91533*	,61083	,000	-4,5376	-1,2931
		Stage 2a: Transitional efficiency driven	-1,63453	,67251	,084	-3,4206	,1515
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	-2,76984*	,83958	,009	-4,9996	-,5401
		Stage 2: efficiency driven	-1,28079	,71725	,292	-3,1857	,6241
		Stage 3: innovation driven	1,63453	,67251	,084	-,1515	3,4206
% 18-64 pop [7/10] TEA and Improvement Driven Opportunity motive	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	-6,03878	5,49611	,692	-20,6354	8,5578
		Stage 3: innovation driven	-17,65366*	5,21586	,007	-31,5060	-3,8013
		Stage 2a: Transitional efficiency driven	1,01144	5,83334	,998	-14,4808	16,5037
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	6,03878	5,49611	,692	-8,5578	20,6354
		Stage 3: innovation driven	-11,61488*	4,24402	,041	-22,8862	-,3436
		Stage 2a: Transitional efficiency driven	7,05022	4,98341	,496	-6,1848	20,2852
	Stage 3: innovation driven	Stage 1: factor driven	17,65366*	5,21586	,007	3,8013	31,5060
		Stage 2: efficiency driven	11,61488*	4,24402	,041	,3436	22,8862

		Stage 2a: Transitional efficiency driven	18,66510*	4,67252	,001	6,2558	31,0744
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	-1,01144	5,83334	,998	-16,5037	14,4808
		Stage 2: efficiency driven	-7,05022	4,98341	,496	-20,2852	6,1848
		Stage 3: innovation driven	-18,66510*	4,67252	,001	-31,0744	-6,2558
	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	-3,53656	4,29755	,843	-14,9500	7,8769
		Stage 3: innovation driven	-6,89122	4,07842	,340	-17,7227	3,9403
		Stage 2a: Transitional efficiency driven	3,43698	4,56125	,875	-8,6768	15,5508
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	3,53656	4,29755	,843	-7,8769	14,9500
		Stage 3: innovation driven	-3,35465	3,31852	,744	-12,1680	5,4587
% within TEA [7/10] Opportunity motive: increase income		Stage 2a: Transitional efficiency driven	6,97354	3,89666	,290	-3,3752	17,3223
	Stage 3: innovation driven	Stage 1: factor driven	6,89122	4,07842	,340	-3,9403	17,7227
		Stage 2: efficiency driven	3,35465	3,31852	,744	-5,4587	12,1680
		Stage 2a: Transitional efficiency driven	10,32820*	3,65357	,033	,6250	20,0314
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	-3,43698	4,56125	,875	-15,5508	8,6768
		Stage 2: efficiency driven	-6,97354	3,89666	,290	-17,3223	3,3752
		Stage 3: innovation driven	-10,32820*	3,65357	,033	-20,0314	-,6250
	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	-2,95063	3,80186	,865	-13,0476	7,1464
		Stage 3: innovation driven	-11,51298*	3,60800	,013	-21,0951	-1,9308
		Stage 2a: Transitional efficiency driven	-1,75619	4,03514	,972	-12,4727	8,9604
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	2,95063	3,80186	,865	-7,1464	13,0476
		Stage 3: innovation driven	-8,56235*	2,93575	,026	-16,3591	-,7656
% within TEA [7/10] Opportunity motive: independence		Stage 2a: Transitional efficiency driven	1,19444	3,44721	,986	-7,9607	10,3496
	Stage 3: innovation driven	Stage 1: factor driven	11,51298*	3,60800	,013	1,9308	21,0951
		Stage 2: efficiency driven	8,56235*	2,93575	,026	,7656	16,3591
		Stage 2a: Transitional efficiency driven	9,75679*	3,23215	,020	1,1728	18,3408
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	1,75619	4,03514	,972	-8,9604	12,4727
		Stage 2: efficiency driven	-1,19444	3,44721	,986	-10,3496	7,9607
		Stage 3: innovation driven	-9,75679*	3,23215	,020	-18,3408	-1,1728
	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	15,66780*	4,78432	,010	2,9616	28,3740
		Stage 3: innovation driven	20,45328*	4,54037	,000	8,3949	32,5116
		Stage 2a: Transitional effiency driven	5,50866	5,07788	,700	-7,9772	18,9945
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	-15,66780*	4,78432	,010	-28,3740	-2,9616
		Stage 3: innovation driven	4,78548	3,69439	,570	-5,0261	14,5971
% within TEA [7/10] Non-opportunity motive: necessity/maintain income		Stage 2a: Transitional efficiency driven	-10,15914	4,33802	,102	-21,6801	1,3618
	Stage 3: innovation driven	Stage 1: factor driven	-20,45328*	4,54037	,000	-32,5116	-8,3949
		Stage 2: efficiency driven	-4,78548	3,69439	,570	-14,5971	5,0261
		Stage 2a: Transitional efficiency driven	-14,94462*	4,06739	,003	-25,7468	-4,1424
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	-5,50866	5,07788	,700	-18,9945	7,9772
		Stage 2: efficiency driven	10,15914	4,33802	,102	-1,3618	21,6801
		Stage 3: innovation driven	14,94462*	4,06739	,003	4,1424	25,7468
	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	1,72673	5,49788	,989	-12,8844	16,3378
		Stage 3: innovation driven	14,36825*	5,15391	,036	,6713	28,0652
		Stage 2a: Transitional efficiency driven	8,24402	5,76406	,487	-7,0745	23,5625
	Stage 2: efficiency driven (includes transition countries to phase 3)	Stage 1: factor driven	-1,72673	5,49788	,989	-16,3378	12,8844
		Stage 3: innovation driven	12,64152*	4,28009	,024	1,2668	24,0162
% within TEAOPP [7/10] Opportunity Type: Increase Income		Stage 2a: Transitional efficiency driven	6,51729	4,99807	,565	-6,7655	19,8001
	Stage 3: innovation driven	Stage 1: factor driven	-14,36825*	5,15391	,036	-28,0652	-,6713
		Stage 2: efficiency driven	-12,64152*	4,28009	,024	-24,0162	-1,2668
		Stage 2a: Transit eff driven	-6,12423	4,61702	,551	-18,3944	6,1459
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	-8,24402	5,76406	,487	-23,5625	7,0745
		Stage 2: efficiency driven	-6,51729	4,99807	,565	-19,8001	6,7655
		Stage 3: innovation driven	6,12423	4,61702	,551	-6,1459	18,3944
% within TEAOPP [7/10] Opportunity Type: Other (incl family business), no	Stage 1: factor driven (includes transition countries to phase 2)	Stage 2: efficiency driven	-,84153	2,43682	,986	-7,3176	5,6345
		Stage 3: innovation driven	-7,38271*	2,28437	,011	-13,4536	-1,3118
		Stage 2a: Transit ef driven	-2,87733	2,55480	,675	-9,6669	3,9123
	Stage 2: efficiency driven	Stage 1: factor driven	,84153	2,43682	,986	-5,6345	7,3176

answer	(includes transition countries to phase 3)	Stage 3: innovation driven	-6,54118*	1,89707	,006	-11,5828	-1,4996
		Stage 2a: Transitional efficiency driven	-2,03580	2,21529	,795	-7,9231	3,8515
	Stage 3: innovation driven	Stage 1: factor driven	7,38271*	2,28437	,011	1,3118	13,4536
		Stage 2: efficiency driven	6,54118*	1,89707	,006	1,4996	11,5828
		Stage 2a: Transit. ef driven	4,50538	2,04640	,137	-,9331	9,9439
	Stage 2a: Transitional efficiency driven	Stage 1: factor driven	2,87733	2,55480	,675	-3,9123	9,6669
		Stage 2: efficiency driven	2,03580	2,21529	,795	-3,8515	7,9231
		Stage 3: innovation driven	-4,50538	2,04640	,137	-9,9439	,9331

*. The mean difference is significant at the 0.05 level.

Source: Author's calculation

THE ROLE OF SOCIAL ENTREPRENEURSHIP IN FOSTERING EMPLOYMENT IN TRANSITION COUNTRIES – THE CASE OF SERBIA[287]

Marija Dzunic, Ph.D[288]

Jelena Stankovic, Ph.D[289]

Vesna Jankovic-Milic, Ph.D[290]

Abstract

The concept of social enterprise has emerged in the last couple of decades, raising increasing interest throughout the world. A special interest for the economic and social role of these enterprises is present in transition countries, where they have recently been recognized as a potential part of the social policy and welfare system reform. Social enterprises represent a form of social innovation, aimed at increasing welfare of individuals and communities through employment, integration and participation, as a supplement to the market and state activities.

Today, a number of transition countries are facing the problem of high levels of long-term unemployment, with a large portion of youth, women and individuals with low qualifications in the structure of the unemployed. Therefore, one of the most important roles of social enterprises is the promotion of innovative, alternative ways of resolving the employment issues (employment of laid-off workers, people with disabilities and other vulnerable groups; new programs of work integration and new forms of public services). The unemployment problem within the countries is deepened by the pertaining regional differences in economic development.

The paper will focus on the analysis of the role of social enterprises in fostering employment of citizens belonging to marginalized and socially excluded groups. Based on the empirical data on 1180 social enterprises in Serbia with 10,189 employees, the paper will present the overall structure of social enterprises across Serbian regions (according to educational and age structure of employees, the share of vulnerable groups in total number of employees, the share of female employees and investment of social enterprises for social purpose) and provide an analysis of the role of social enterprises to the employment of marginalized groups. In addition to the statistical analysis, the findings are derived by applying the multi-criteria analysis. The approach is based on the fact that the role of social enterprises in fostering employment can be assessed through their contribution to employment of several different marginalized groups.

The aim of the paper is to assess the possibilities of social enterprises to mitigate the problem of unemployment in transition countries and point to the need to stimulate the activities and development of this sector.

Keywords: *social enterprises, employment, transition economies, multi-criteria analysis*

[287] This paper is a part of the research on the project *Improving competitiveness of public and private sector by networking competences in the European integration process of Serbia"*, no. 179066, supported by the Ministry of Education, Science and Technological Development, Republic of Serbia

[288] Faculty of Economics, University of Nis, Trg Kralja Aleksandra 11, 18000 Nis; marija_dzunic@ni.ac.rs

[289] Faculty of Economics, University of Nis, Trg Kralja Aleksandra 11, 18000 Nis; jelena.stankovic@eknfak.ni.ac.rs

[290] Faculty of Economics, University of Nis, Trg Kralja Aleksandra 11, 18000 Nis; Vesna.jankovic@eknfak.ni.ac.rs

1. Introduction

In recent decades, we have witnessed a significant increase of interest in social enterprises, both in developed countries (especially in the European Union) and transition economies. Although the concept of social entrepreneurship is not new in practice, the developments in modern economies, especially related to the increasing inequalities, have urged for alternative ways of resolving various socio-economic problems. The concept of social enterprise has thus emerged as an alternative and supplement to the social welfare systems that, in a form of a social innovation, deals with certain aspects of poverty, unemployment, social exclusion and provision of community services.

The specificity of social enterprises is that their activities are aimed at producing sustainable impact to the economic and social development, through the realization of social goals, instead of making profit. One of the important aspects of social enterprises is promoting equality, through the reintegration of marginalized groups in the labor market, providing social goods and services for the poor and creating social values by promoting social responsibility of economic organizations.

This paper will focus on the contribution of social enterprises to the employment of socially excluded groups in Serbia, a transition economy with the increasing demands for alternative ways for providing social services and employment generation. Based on the data on social enterprises in Serbia, the paper will provide an analysis of the employment of socially excluded groups in social enterprises in four Serbian regions. The second step will be to determine whether there are statistically significant differences in the employment rates in social enterprises across the regions. Finally, as a result of multi-criteria analysis, regions in Serbia will be ranked according to the contribution to employment of socially excluded categories of citizens.

The paper will be structured as follows: after introductory notes and literature review, part 3 describes data sources and methods used in the analyses; in parts 4 and 5 the main results of statistical and multi-criteria analysis will be presented and discussed. The final part will offer some concluding remarks.

2. Literature review

Academically, the interest for research in the field of social entrepreneurship has first appeared in business and management schools, but also in the fields of corporate social responsibility, co-operatives and non-profit sector. According to Bull (2008), there were three reasons for the emergence and the evolution of the term *social enterprise* in the last 20 years: the decline of state involvement in the provision of social services, the emphasis on promoting the entrepreneurial culture and the shift in funding opportunities within the community and the non-profit sector. Therefore, social enterprises have appeared as a sort of “amalgamation” of the voluntary nature and social orientation of the non-profit sector with “business-like” practices and entrepreneurial activities of the profit sector.

Defining social enterprises faces many conceptual problems, arising predominantly from the fact that they operate within a large specter of various business formats, but also from differences in understanding this concept across the world. The US literature emphasizes the entrepreneurial nature and market orientation of this business form, including both profit organizations engaged in socially oriented activities and non-profit organizations that use their commercial activities as a source of funds for achieving the community goals (Kerlin, 2005). Furthermore, there have been propositions to differentiate from two major schools of thought in the US literature, the first accentuating business activities of non-profit organizations, and the second focusing more on the social innovation character of these enterprises (Dees and Anderson, 2006).

At the same time, the literature from continental Europe accentuates their social objectives, reinvesting surplus for achieving those goals as well as democratic and participatory principles in the management of social enterprises. The Department of Trade and Industry (2002) in the UK defines social enterprises as business with primarily social objectives, not driven by the urge to maximize profit for the owners and stakeholders, but reinvesting surplus for the purpose of realizing social objectives.

The European Research Network on Social Enterprises (EMES) builds its definition of social enterprise on social impact in the community as a predominant motivation for their operation (Defourny and Nyssens, 2006). Here, social enterprises are defined as: "organizations with an explicit aim to benefit the community, initiated by a group of citizens and in which the material interest of capital investors is subject to limits. Social enterprises also place a high value on their autonomy and on economic risk-taking related to ongoing socio-economic activity." The EMES approach to social enterprises includes three sets of indicators (Defourny and Nyssens, 2012): *economic indicators* that reflect the entrepreneurial dimension of social enterprises (a continuous activity of producing goods and services, engaging in economically risky activities, minimum amount of paid work); *social dimension* indicators (aim to benefit the community, collective dynamics and limited distribution of profit); *governance indicators* (autonomy, decision making not based on capital shares and a participatory nature of management).

It can be concluded that, although social enterprises represent private and autonomous organizations, owned and managed by individuals or groups of citizens, the material interest of investors is subject to limits (Borzaga et al., 2008). Based on different definitions of the concept, there are two main fields of their activities: work integration of the disadvantaged and social and community care services provision (Borzaga, Defourny, 2001).

The main role of social enterprises in modern economies stems from the fact that they are facing rising numbers of citizens belonging to marginalized and excluded groups. Many different social groups (people with disabilities, young people with low qualifications, people over 50 that have been laid off, and various types of vulnerable categories - refugees, single mothers, women victims of violence, former prisoners, persons with no formal education, etc.) are threatened by the lack of employment and limited opportunities to adequately position themselves in the changed conditions of the labor market. Also, these social categories often have limited access to public services provision (social protection, educational, health services).

It should be noted that social enterprises still represent only a small provider of social services and are able to integrate a limited number of disadvantaged workers. However, their contribution to the economic and social development should not be underestimated. As alternative social care services providers, social enterprises perform an active role in transforming the welfare systems of modern economies, thereby overtaking the role of income redistribution (Borzaga and Defourny, 2001). Focusing on the socially excluded groups and helping them resolve problems of work integration, social enterprises contribute to social cohesion and creating social capital. However, by far most important contribution of social enterprises relates to employment creation. They perform this role both by employing the vulnerable groups at the labor market and creating employment in the sector of providing social care services. As modern states are confronted with pressures to reduce public expenditures, it cannot be expected that governments will increase employment in the sector of social and community care.

The role of social enterprises in transition economies is mostly related to resolving the issues of poverty, unemployment or the reform of the welfare state. Transition economies have been facing high levels of long-term unemployment, with a large proportion of youth, women and low-qualified workers in the structure of unemployed (Parun and Petrušić, 2008). Additional problems

of transition economies are large regional disparities in economic development as well as the lack of options for the employment of vulnerable groups. Slow economic growth in many transition countries has confirmed that the market itself cannot account for all the gaps left by transition reforms that reduces the role of the state, which leaves the space for organizations oriented to non-profit goals. Social enterprises have appeared as potential solutions for filling these gaps, generally through work integration programs or providing social care services in these conditions (Les, Jeliazkova, 2005). Many of them were founded within international aid programs or EU accession projects. The main field of their operation is employment of vulnerable and socially excluded groups, mostly people with disabilities.

3. Research Methodology and Dataset

The regional analysis of the contribution of social enterprises to the employment of socially excluded groups in Serbia is based on data collected in survey of Statistical Office of the Republic of Serbia (Economic Impact of Social Enterprises in the Republic of Serbia, 2014). The results of the paper will be based on a sample of 1180 social enterprises in Serbia with 10,189 employees. Social enterprises include following categories: (1) development agencies, (2) foundations, (3) business incubators, (4) enterprises for employment of people with disabilities, (5) citizens' associations and (6) cooperatives. The regional structure of the sample according to the social enterprises categories is presented in the Table 1.

Table 1 – the structure of the sample

Category	Development agencies	Foundations	Business incubators	Enterprises for employment of people with disabilities	Citizens' associations	Cooperatives	Total
Region of Belgrade	1	13	1	9	63	33	120
South and Eastern Serbia	9	0	9	11	57	144	230
Sumadija and Western Serbia	10	1	4	14	65	190	284
Region of Vojvodina	12	8	4	11	97	414	546
Total	32	22	18	45	282	781	1180

Source: Authors' preview based on data from Economic Impact of Social Enterprises in the RS

The applied methodology is composed of two successive analyses: statistical analysis and multi-criteria analysis.

The methods of statistical analysis were applied in order to present the regional structure of the sample by attributes that will serve as criteria in multi-criteria analysis. The aim of application of multi-criteria analysis is to make an overall assessment of fulfilment of different criteria relevant for contribution to employment of socially challenged groups. The relevant criteria included in the model are: (1) the number of employed young people, (2) the number of employed old people, (3) the number of female employees, (4) number of employees without professional qualifications, (5) the number of employees with elementary education, (6) the number of employees that belong to vulnerable groups and (7) spending more than 50% of income for social purposes. The assumption of the model is that criteria listed above are not equally important. Their significance will be determined after the application of principal component analysis. The alternatives in the model are regions in Serbia and the goal of the analysis is to perform their ranking.

The idea for performing this kind of analysis is based on the assumption that the larger number of social enterprises in the observed region to a greater extent contributes to a better position of socially challenged groups. Thus, the hypothesis can be defined as:
H1: The overall assessment of fulfilment of different criteria relevant for contribution to employment of socially challenged groups in the observed region is correlated with the number of social enterprises in this region.

4. Descriptive statistics and One-way ANOVA

Descriptive statistics in the paper treats regional structure of the sample according to educational and age structure of employees, the share of vulnerable groups in total number of employees, the share of female employees and investment of social enterprises for social purpose. Number of employees that belong to socially excluded groups (listed above) and their average share in total number of employees across the regions are presented in Table 2.

Table 2 –employees from socially excluded groups according to regions

Region		Youth	Old	Woman	Without professional qualifications	With elementary education	Vulnerable groups
Region of Belgrade	NE	251	173	453	68	104	241
	MS	16.85%	9.76%	48.00%	1.84%	6.33%	13.45%
South and Eastern Serbia	NE	278	100	793	52	311	508
	MS	10.52%	10.10%	41.00%	1.93%	10.57%	10.36%
Sumadija and Western Serbia	NE	370	151	1080	166	624	451
	MS	10.58%	15.19%	44.69%	2.67%	13.97%	10.21%
Region of Vojvodina	NE	560	258	1511	282	930	493
	MS	12.13%	12.11%	39.62%	3.24%	12.22%	5.49%
Total	NE	1459	682	3837	568	1969	1693
	MS	11.91%	12.21%	41.95%	2.70%	11.72%	8.36%

NE – Number of employees
MS- Mean Share in total number of employees
Source: Authors' calculation

As it can be seen from Table 2, the highest number of employees from socially excluded groups is observed in the Region of Vojvodina. When we consider the relative indicators, average share of youth employees (16.85%) and women (48.00%) as well as vulnerable groups (13.45%) are the highest in Region of Belgrade. At the same time, there is the lowest share of employees without professional qualifications (1.84%) and with elementary education (6.33%) in this region. Also it could be noted that the highest average participation of employees without professional qualifications (3.24%) is in Region of Vojvodina, while the highest participation of employees with lowest educational level (13.97%) is in the Sumadija and Western Serbia region.
Very important element of the analysis represents investment of social enterprises for social purpose. The purposes of the investments are shown in the Table 3.

Table 3 – regional structure of social enterprises` investment for social purpose

		Spending more than 50% of income for social purposes					
		Do not spend more than 50% of income for social purposes	Spend in some other social purpose	Spend on development of rural areas	Spending on environmental protection	Spending on vulnerable groups	Total
Region of Belgrade	Count	64	16	4	5	31	120
	% within the region	53.3%	13.3%	3.3%	4.2%	25.8%	100.0%
	% within Spending	7.1%	26.2%	17.4%	13.9%	25.4%	10.5%
South and Eastern Serbia	Count	165	14	4	7	28	218
	% within the region	75.7%	6.4%	1.8%	3.2%	12.8%	100.0%
	% within Spending	18.3%	23.0%	17.4%	19.4%	23.0%	19.1%
Sumadija and Western Serbia	Count	213	12	9	4	30	268
	% within the region	79.5%	4.5%	3.4%	1.5%	11.2%	100.0%
	% within Spending	23.6%	19.7%	39.1%	11.1%	24.6%	23.4%
Region of Vojvodina	Count	460	19	6	20	33	538
	% within the region	85.5%	3.5%	1.1%	3.7%	6.1%	100.0%
	% within Spending	51.0%	31.1%	26.1%	55.6%	27.0%	47.0%

Source: Authors' calculation

Analysing the structure of investment, presented in the Table 3, it can be concluded that, in the context of social enterprises that spend more than 50% of income on vulnerable groups, the majority of enterprises belong to Region of Vojvodina.

In terms of further analysis, investment purposes are quantified using Likert scale of 1 to 5, where 1 means Do not spend more than 50% of income for social purposes. The highest value (5) indicates Spending on vulnerable groups. Average scores for spending more than 50% of income for social purposes by social enterprise types are presented in Table 4.

Table 4 - average scores for spending more than 50% of income for social purposes

Region	Average score	Number of enterprises who provided the answer
Region of Belgrade	2.36	120
South and Eastern Serbia	1.71	218
Sumadija and Western Serbia	1.60	268
Region of Vojvodina	1.41	538
Total	1.61	1144

Source: Authors' calculation

According to the results presented in the table above, the highest average score is related to the Region of Belgrade (2.36). This score indicates that the highest number of social enterprises from this region spends more than 50% of income on vulnerable groups.

In order to analyse differences in relative share of socially challenged groups between the regions, as well as in the structure of investments, the one way ANOVA is applied. The results obtained are presented in Table 5.

Table 5 – one-way anova results

	Variability	Sum of Squares	df	Mean Square	F	Sig.
Youth employment	Between Types	.317	3	.106	1.986	.114
	Within Types	51.289	964	.053		
	Total	51.606	967			
Old people employment	Between Types	.351	3	.117	.332	.803
	Within Types	340.345	964	.353		
	Total	340.696	967			
Women employment	Between Types	.788	3	.263	2.332	.073
	Within Types	108.501	964	.113		
	Total	109.288	967			
Employees without professional qualifications	Between Types	.032	3	.011	.620	.602
	Within Types	16.331	963	.017		
	Total	16.362	966			
Employees with elementary education	Between Types	.436	3	.145	1.555	.199
	Within Types	89.960	963	.093		
	Total	90.395	966			
Vunerable groups employment	Between Types	.908	3	.303	5.613	.001
	Within Types	60.718	1126	.054		
	Total	61.626	1129			
More than 50% of income for social purpose	Between Types	89.972	3	29.991	17.928	.000
	Within Types	1907.027	1140	1.673		
	Total	1996.999	1143			

Source: Authors' calculation

According to the results of one-way analysis of variance (Sig.<0.05), the regional difference in social enterprises is statistically significant in the case of vulnerable groups share in total number of employees and investment in social purpose. The age, gender and educational structure in social enterprises do not vary significantly by regions.

5. Multi-Criteria Approach to Assessment of Social Enterprise Contribution to Employment of Socially Excluded Groups

According to defined hypothesis authors' expectation is that the regions with highest number of social enterprises are at the same time the regions with the highest overall contribution to employment of socially challenged groups, since the main goal of social entrepreneurship is to promote empowerment and employment of socially excluded and vulnerable groups.

In order to test this hypothesis, the authors created a suitable multi-criteria model.
The MCA models are focused on resolving problems that are aimed to determine a priorities in the finite set of alternatives Ai ($i = \overline{1,m}$), based on several different, very often conflict, criteria Cj, ($j = \overline{1,n}$). The elements of the decision matrix x_{ij} are called attributes and show the level at which alternative Ai fulfils the criterion Cj. The general form of MCA model presentation is given in Table 6.

Table 6. General form of Multi-Criteria Analysis Model

	C_1	C_2	...	C_n
A_1	x_{11}	x_{12}	...	x_{1n}
A_2	x_{21}	x_{22}	...	x_{2n}
⋮	⋮	⋮	⋮	⋮
A_m	x_{m1}	x_{m2}	...	x_{mn}

In accordance with developed hypothesis and research methodology, the structure of the proposed model is given in Figure 1.

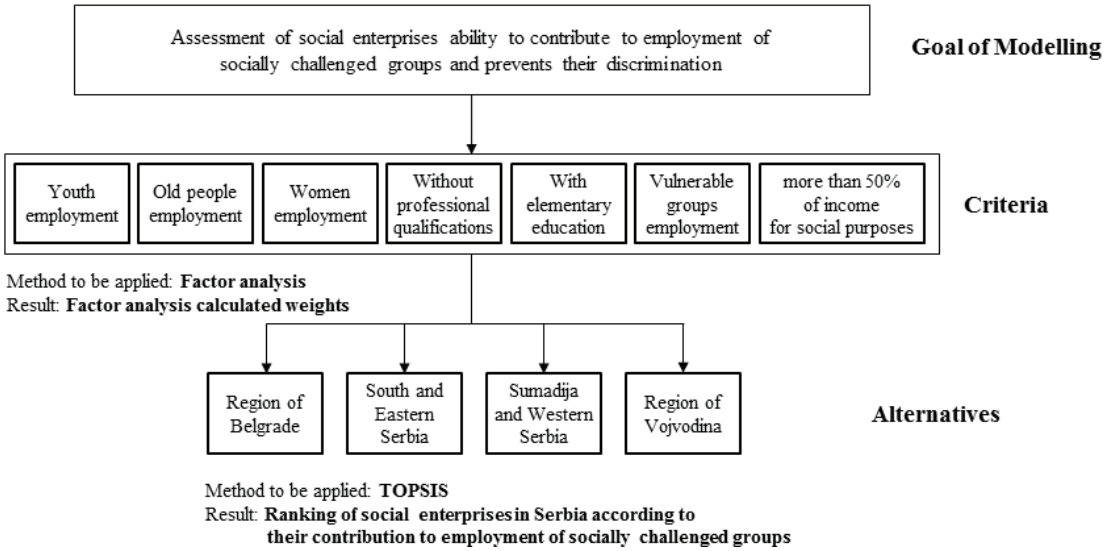


Figure 1 Flowchart of Proposed Model - Integrated Approach of Entropy and TOPSIS

In order to solve the described problem, an integrated approach of two methods has been applied – factor analysis in weights determination process and TOPSIS method in order to rank the regions in Serbia according to the overall assessment of state of employment of socially challenged groups.

5.1. Weights Determination using Factor Analysis

One of the crucial parts of multi-criteria model development is to estimate the relative importance of criteria. As it is already denoted, assessment of social enterprises ability to contribute to employment of socially challenged groups will be performed through seven (n=7) different criteria that include number of employed that belong to different discriminated groups, as well as spending income for social purposes and it is necessary to determine the measure of relative importance of each criterion, expressed through weights wj (j=1,2,...,n).

The problem of relative weights determination exists since the formulation of the first multi-criteria analysis methods. During that period several approaches have been proposed to determine weights (Hwang and Yoon, 1981; Saaty, 1980). Most of them can be classified depending on the information provided for their assessment in two main groups: (1) subjective (reflect subjective judgment) and (2) objective approach (determine weights by using mathematical models) (Liu, 2003). For the purpose of this research, we use one of the objective approaches – the principal component analysis.

Principal component analysis is a method within a factor analysis. This technique of multivariate analysis groups together attributes (variables) that are collinear to form a new factor or attribute capable of capturing as much of common information of those attributes as possible. Possibility for weights determination appears in the construction of matrix of factor loadings after rotation. At this phase, it is possible to construct the weights, given that the square of factor loadings represents the proportion of the total unit variance of the attribute which is explained by the factor. Different methods for the extraction of principal components imply different weights. The rest of the variance not explained by the listed factor or factors, i.e. the difference between the total variance and squared values of factor loadings is a specific variance, unique for each attribute (Đorđević, Lepojević, Janković-Milić, 2011).

5.2. TOPSIS method

As multi-criteria decision making method, Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) is applied in order to determine level of overall contributions of each type of social enterprises to the employment of socially challenged groups in Serbia. TOPSIS method was first developed by Hwang and Yoon (1981). It is the one of the most popular methods of ranking alternatives, based on the principle of compromise that the chosen alternative should have "the shortest distance from the positive ideal solution" and "the farthest distance from the negative ideal solution" (Hwang and Yoon, 1981; Zeleny, 1982; Hall, 1989).

According to Yoon and Hwang (1995), the algorithm of TOPSIS method includes six successive steps:

Step 1. Calculation of normalized decision matrix $R_{m\times n} = \left[r_{ij}\right]_{m\times n}$ using vector normalization for determination of coefficients r_{ij}, where

$$r_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^{m} x_{ij}^2}}, \qquad i = 1,2,\dots,m, \qquad j = 1,2,\dots,n. \tag{1}$$

Step 2. Calculation of weighted normalized matrix $\mathrm{V_{m\times n}} = \left[\mathrm{v_{ij}}\right]_{\mathrm{m\times n}}$ using relation which is given as

$$v_{ij} = w_j r_{ij}, \qquad i = 1,2,\dots,m, \qquad j = 1,2,\dots,n. \tag{2}$$

Step 3. Determination of positive-ideal A^* and negative-ideal A^- solutions based on given relations where

$$A^* = \left\{v_1^*, v_2^*, \dots, v_j^*, \dots, v_n^*\right\} = \left\{\left(\max_i v_{ij} \,\middle|\, j \in J_1\right), \left(\min_i v_{ij} \,\middle|\, j \in J_2\right) \middle|\; i = 1,2,\dots,m\right\} \tag{3}$$

$$A^- = \left\{v_1^-, v_2^-, \dots, v_j^-, \dots, v_n^-\right\} = \left\{\left(\min_i v_{ij} \,\middle|\, j \in J_1\right), \left(\max_i v_{ij} \,\middle|\, j \in J_2\right) \middle|\; i = 1,2,\dots,m\right\} \tag{4}$$

and A^* and A^- are defined in terms of the weighted normalized values, while J_1 is the set of benefit-type criteria and J_2 is the set of cost-type criteria.

Step 4. Calculation of separation from the positive-ideal solution S_i^* and separation from the negative-ideal solution S_i^- in accordance with relations where

$$S_i^* = \sqrt{\sum_{j=1}^{n} (v_{ij} - v_j^*)^2}, \qquad i = 1,2,\dots,m \text{ and} \tag{5}$$

$$S_i^- = \sqrt{\sum_{j=1}^{n} (v_{ij} - v_j^-)^2}, \qquad i = 1,2,\dots,m. \tag{6}$$

Step 5. Calculation of similarities to positive-ideal solution C_i^* which is given as

$$C_i^* = \frac{S_i^-}{(S_i^* + S_i^-)}, \qquad i = 1,2,\dots,m. \tag{7}$$

The measure of similarities to positive-ideal solution is the value between 0 and 1 ($0 \le C_i^* \le 1$), where $C_i^* = 0$ if the alternative A_i is equal to negative-ideal solution and $C_i^* = 1$ when the alternative A_i is equal to positive-ideal solution.

Step 6. Final step of algorithm is determination of rank preference order of alternatives as a rank according to C_i^* in descending order.

5.3. Results and Discussion

Based on the general MCA model given by Table 6 and the data presented in Table 2 that present regional distribution of number of employees that belong to socially excluded groups, the

performance matrix for the problem described in the paper has been created and presented in Table 7.

TABLE 7 –Performance Matrix for MCA Model

	Youth	Old	Woman	Without professional qualifications	With elementary education	Vulnerable groups	Spending more than 50% of income for social purposes
	C_1	C_2	C_3	C_4	C_5	C_6	C_7
Region of Belgrade	251	173	453	68	104	241	2.36
South and Eastern Serbia	278	100	793	52	311	508	1.71
Sumadija and Western Serbia	370	151	1080	166	624	451	1.60
Region of Vojvodina	560	258	1511	282	930	493	1.41

Source: Authors' preview based on data from Table 2 and Table 4

Defined matrix corresponded to the structure of the MCA model described in Figure 1. The factor analysis has been used in order to determine the weights. The results in Table 8 show that the criterion with greatest importance in the model is number of employed women (w3 = 0.2375) and it has been followed by number of employed with elementary education (w5 = 0.2082), as well as with no professional qualifications (w4 = 0.1925).

Table 8 –factor analysis based weights

Indicator	Lebel	Communality	The percentage of total variance explained	Weights
Youth	w_1	0.859	73.815%	0.1825
Old	W_2	0.614	37.730%	0.0933
Woman	W_3	0.980	96.068%	0.2375
Without professional qualifications	W_4	0.882	77.847%	0.1925
With elementary education	W_5	0.918	84.221%	0.2082
Vulnerable groups	W_6	0.585	34.220%	0.0846
Spedning income for social purposes	W_7	0.075	0.563%	0.0014

Source: Authors' calculation using SPSS

According to Eq. (1) – (7), TOPSIS procedure has been conducted and the results are given in Tables 8-11.

Table 9. Normalized Performance Matrix

	Youth	Old	Woman	Without professional qualifications	With elementary education	Vulnerable groups	Spending more than 50% of income for social purposes
	C_1	C_2	C_3	C_4	C_5	C_6	C_7
Region of Belgrade	0.326557	0.481124	0.218874	0.201039	0.089120	0.275975	0.653496
South and Eastern Serbia	0.361685	0.278106	0.383151	0.153736	0.266503	0.581724	0.473508
Sumadija and Western Serbia	0.481379	0.419941	0.521820	0.490772	0.534719	0.516452	0.443048
Region of Vojvodina	0.728573	0.717514	0.730064	0.833721	0.796937	0.564547	0.390436

Source: Authors' calculation

Table 10. Weighted Normalized Performance Matrix

	Youth	Old	Woman	Without professional qualifications	With elementary education	Vulnerable groups	Spending more than 50% of income for social purposes
	C_1	C_2	C_3	C_4	C_5	C_6	C_7
Weights	***0.1825***	***0.0933***	***0.2375***	***0.1925***	***0.2082***	***0.0846***	***0.0014***
Region of Belgrade	0.059597	0.044889	0.051983	0.038700	0.007540	0.023348	0.000915
South and Eastern Serbia	0.066007	0.025947	0.090998	0.029594	0.022546	0.049214	0.000663
Sumadija and Western Serbia	0.087852	0.039180	0.123932	0.094474	0.045237	0.043692	0.000620
Region of Vojvodina	0.132965	0.066944	0.173390	0.160491	0.067421	0.047761	0.000547

Source: Authors' calculation

Table 11. Determination of positive-ideal A^* and negative-ideal A^- solutions

A^*	0.132965	0.066944	0.173390	0.160491	0.067421	0.049214	0.000915
A^-	0.059597	0.025947	0.051983	0.029594	0.007540	0.023348	0.000547

Source: Authors' calculation

The overall contribution to all criteria, presented in Table 12, shows that the highest measure of similarities to positive-ideal solution is for alternative that refers to Region of Vojvodina ($C_4^* = 0.992832$). This means that the largest contribution to employment of socially excluded and discriminated groups is in the Region of Vojvodina.

Table 12 – results of topsis

Type of Social Enterprise	Si*		Si-		Ci*	
	Value	Rank	Value	Rank	Value	Rank
Region of Belgrade	0.199241	4	0.021020	4	0.095432	4
South and Eastern Serbia	0.179166	3	0.049574	3	0.216727	3
Sumadija and Western Serbia	0.100663	2	0.110429	2	0.523131	2
Region of Vojvodina	0.001499	1	0.207652	1	0.992832	1

Source: Authors' calculation

The regional distribution of social enterprises is presented in Table 13.

Table 13 – number of social enterprises and the ranking of regions

Region	Number of social enterprises	%	Rank
Region of Belgrade	120	10.17%	4
South and Eastern Serbia	230	19.49%	3
Sumadija and Western Serbia	284	24.07%	2
Region of Vojvodina	546	46.27%	1
Total	1180	100.00%	

Source: Authors' preview based on data from Economic Impact of Social Enterprises in the RS

Completely matching of ranks in these two categories, clearly suggests that the research hypothesis H1 is proved and that the number of social enterprises in the observed region has a positive impact on the level of fulfilment of the criteria relevant to employment of socially challenged groups.

6. Conclusion

The aim of the analysis was to determine the contribution of social enterprises in Serbia to the employment of socially excluded groups. In the first step, the analysis of variance has confirmed that regional differences in social enterprises are statistically significant in the case of vulnerable groups share in total number of employees and spending of social enterprises for the social purposes. In the aim of assessing different criteria relevant for contribution to employment of discriminated groups in the labour market in four Serbian regions, multi-criteria analysis was performed. The principal component analysis has been used in order to determine the weights, while the results of the TOPSIS procedure showed that the largest contribution to employment of socially excluded groups is observed in the region of Vojvodina, the region with the largest number of social enterprises.

References

Borzaga, C., Galera, G. Nogales, R. (eds.) (2008). *Social Enterprise: A new model for poverty reduction and employment generation.* UNDP and EMES: Bratislava.

Borzaga, C., Defourny, J. (eds.) (2001). *The Emergence of Social Enterprise.* Routledge: London and New York.

Bull, M. (2008). Challenging tensions: Critical, theoretical and empirical perspectives on social enterprise. *International Journal of Entrepreneurial Behaviour & Research.* 14(5), pp. 268–75.

Dees, J. G., Anderson, B.B. (2006). Framing a Theory of Social Entrepreneurship: Building on Two Schools of Practice and Thought. ARNOVA Occasional Paper Series. 1(3), pp. 39-66.

Defourny, J., Nyssens, M. (2006). Defining Social Enterprise, in Nyssens, M. (ed.) *Social Enterprise :At the crossroads of markets, public policies and civil society.* Routledge.

Defourny, J., Nyssens, M. (2012). The EMES Approach of Social Enterprise in a Comparative Perspective. EMES Working Papers 12/03.

Department of Trade and Industry (2002). *Social enterprise: a strategy for success.* DTI: London.

Đorđević, V., Lepojević, V., Janković-Milić, V. (2011). *Primena statističkih metoda u istraživanju tržišta.* Ekonomski fakultet, Niš.

Hall, A. D. (1989) *Matasystems Methodology: A New Synthesis and Unification*. Pergamon Press: Oxford.

Hwang, C. L., Yoon. K. (1981). *Multiple Attribute Decision Making: Methods and Applications.* Springer: Berlin.

Kerlin, J. (2005). Social Enterprise in the United States and Europe: Understanding and Learning from our Differences. *First European Conference of the ISTR and EMES Network on the Concepts of the Third Sector: The European Debate.* Paris.

Les, E., Jeliazkova, M. (2005). The Social Economy in Central East and South Europe in OECD. *The Social Economy as a Tool of Social Innovation and Local Development.* Background paper 22-24. Trento, Italy.

Liu, C.C. (2003). Simulating Weights Restrictions in Data Envelopment Analysis by the Subjective and Objective Integrated Approach. *Web Journal of Chinese Management Review*. 6(1), pp. 68-78.

Parun Kolin, M. i Petrušić, N. (2008). *Socijalna preduzeća i uloga alternativne ekonomije u evrospkim integracijama*. Beograd: Evropski pokret u Srbiji.

Saaty, T. L. (1980). *Multicriteria decision making: the Analytic Hierarchy Process*. New York, NY: McGraw-Hill.

Statistical Office of the Republic of Serbia (2014). *Economic Impact of Social Enterprises in the Republic of Serbia*. Belgrade, 2014. (database)

Yoon K.P., Hwang C.-L. (1995). Multiple Attribute Decision Making: An Introduction. *Sage University Paper series on Quantitative Applications in the Social Sciences.* 07-104. Thousand Oaks, CA: Sage.

Zeleny, M. (1982) *Multiple Criteria Decision Making*. McGraw-Hill: New York.

THE INFLUENCE OF SYSTEMIC TRANSFORMATION AND EU ACCESSION ON ENTREPRENEURIAL BEHAVIOUR IN POLAND

Dr Renata Osowska
and
Dr Jacqueline Brodie[291]

Abstract

This paper will address gap in entrepreneurship knowledge, namely, the circumstances in which the culture of one region needs to adapt to a changing environment by developing an entrepreneurial approach. By analysing entrepreneurship in Poland (an economy in transition) it is feasible to analyse this difficult to capture change. Culture is understood here as a commonly shared set of values and beliefs and expected behaviour (Hayton et al. 2002). Analysing changes in attitudes towards entrepreneurship, assumed as expected behaviour, can provide important evidence to support the proposition that culture and entrepreneurship evolve together influencing each other in the form of co-evolution. The cultural context can be multidimensional and hard to capture in any type of settings, therefore this study will focus on the start-up phase of SMEs, where entrepreneurial behaviour manifests itself through opening the company. To find the connection between cultural change and attitudes to entrepreneurship, a qualitative approach will be applied on samples of entrepreneurs who opened their businesses around the years of 1990, 2000 and 2010. An analysis of change in attitudes towards entrepreneurship can highlight evidence of mechanisms for cultural change and reveal the cultural perception of entrepreneurship over time. This paper argues that entrepreneurship supports the transformation of old systems of values and beliefs by supporting the existing culture to evolve and adapt to the changing environment. Thus, entrepreneurship could be recognised as a behaviour which can modify values and beliefs of society by introducing new ones, especially during drastic shift events such as systemic change and EU accession.

Keywords: *entrepreneurial behaviour, economy in transition, Poland*

[291] Edinburgh Napier University, Edinburgh, UK, r.osowska@napier.ac.uk
j.brodie@napier@ac.uk

Introduction

Guiso et al. (2006) note that economists have been quite reluctant to include culture as a possible determinant of any economic phenomena that can impact economic behaviour. This reluctance comes from the concept of culture itself, which can be interpreted extremely broadly and also the way culture can interact with the economy is so 'ubiquitous' that it is difficult to design widely testable hypotheses. However, recent developments suggest that including culture as a determinant could enrich understanding of economic phenomena (Guiso et al., 2006).

To achieve this culture needs to be defined in a 'sufficiently narrow way' (Guiso et al., 2006, p.23). This permits identification of a link between culture and economic outcomes. For this reason culture in this research will be defined as a set of commonly shared values and beliefs, which enforce an expected pattern of behaviour. This will enable a focus on those dimensions of culture which can be related to entrepreneurial behaviour, manifested through the process of opening a business. Analysing changes in attitudes towards entrepreneurship assumes that a behaviour can provide important evidence to the proposition that culture and entrepreneurship can evolve together and influence each other.

The main theoretical framework applied will be based on the idea of social legitimation from Etzioni (1987) who suggested that this approach can determine the level of entrepreneurship between countries, but also within one society in different periods (Etzioni, 1987). Entrepreneurs are viewed here as actors of change who adapt to changing environments and entrepreneurship as a way to smooth the inevitable transition. This approach suits countries faced by systemic transformation in Central and Eastern Europe, where transition starts from political change, leads to economic change, and then influences the cultural environment. What is lacking in the literature is the comparison between the influences of systemic transformation and an important shift for these countries, the EU accession. Both events have permanently changed the existing rules of the game (Baumol, 1990) and influenced entrepreneurial behaviour. This paper will try to fill this gap by providing results from fieldwork conducted in Poland.

1. Historical background

1.1 Systemic transformation

Poland was under Soviet influence up to the year 1989, when the first reforms where introduced, implementing the systemic change to capitalism. These circumstances gave hope for a better future where an active, enterprising and rational individual might participate in the ongoing transformation. From sociological, political and economic perspective it is important to recognise how both individuals and the whole society operated under these new conditions (Karwinska, 2005).

At the beginning the society accepted a hybrid policy where the order was based on a free market economy (providing support to the private sector), coupled with a strong state that would intervene to support individuals who were unable to cope with the changing economic circumstances (Karwinska, 2005). In the years that followed, attitudes towards transformation were strongly related to the 'reforms' implementation. The so-called 'shock therapy' was connected with anxiety and a lack of stability. Although it helped the Polish economy to adapt to market structures, their introduction extended poverty and contributed to the emergence of a 'disadvantageous socioeconomic position' syndrome, which manifested itself through socioeconomic and sometimes also geographic marginalisation (Karwinska, 2005). Consequently, together with changing circumstances, unemployment surged from the beginning of 1990 from 0.3% to 12.2% by the end of 1991.

On the other hand, the changes introduced a new middle class and reorganised the social structure. Furthermore, apart from admitting the right to get rich, new challenges appeared with the emergence of the need to respect property rights' (Karwinska, 2005, p.72). Ziemilski (1995) identified three areas that required attention during that time of adaptation process to changing circumstances: politics, culture and economy. Some of the issues were related to open borders, freedom to relocate, democratic structures, a multicultural world, the increased ambiguity of actions or attitudes and a free market. Throughout the 1990s the process of economic transformation led to the privatisation and reprivatisation (Karwinska, 2005).

Overall the main aim of the systemic change was to modernise political and economic aspects of the social system, which consequently led to democratisation and a free market economy. But, the extent of changes and challenges generated by this transformation hindered significantly the adaptation processes.

1.2 EU accession

Another change was initiated by the EU accession which involved the adoption of the European 'acquis communautaire'. By opening a single market, this process introduced even more extensive change, which has been called the second phase of institutional revolution (Marody and Kochanowicz, 2007). The EU accession is regarded as the end of transition towards a free economy.

Poland joined the EU on May 1st 2004. A visible benefit of accession was the help obtained from the structural and cohesion funds, which turned out to be a major factor in social, infrastructural and civic development (Bukowski et al., 2008). The broader stream of financial help came after accession and made Poland the largest recipient of funds amongst new member states. In the first programming period (2004-2006) it received almost 8.6 billion Euro from the Structural Funds and €4.2 billion from the Cohesion Fund. This represented 1.8 % of Polish GDP. For the years 2007-2013 Poland received €67 billion allocation. Putting it to the average annual allocation of 9.6 billion Euro it constituted 20% of the total investment in Poland in 2005 and over €2 billion more than total direct foreign investments in Poland in 2005 (Bukowski et al., 2008).

Considering that in 20 years Poland had to take on and implement capitalistic values it is not surprising that this caused an immense crisis. The change from the centrally planned economy into a free market created new institutions and businesses. It also produced a rapid growth of entrepreneurial activities, mainly small and medium enterprises (SMEs).

2. Entrepreneurship and cultural contextualisation

SMEs are of special importance to transition countries. Research shows that even if SMEs do not generate new jobs, they reduce the erosion of human capital by providing alternative employment opportunities (EBRD, 1995). SME development is especially crucial for the early phases of transition (Smallbone and Welter, 2001) and also important for the advanced stages of post-transition.

This article follows Mueller and Thomas (2000, p.58) viewing entrepreneurship as a behaviour 'which varies across countries due to differences in cultural values and beliefs', this approach suggests that some cultures may value and support this type of behaviour more than others. Marody and Kochanowicz (2007) suggest that to research (economic) culture it is advisable to analyse entrepreneurial factors. Entrepreneurial activities happen as part of everyday life, which draws attention to the impact of entrepreneurship on society even outside the business sector. Anderson and Smith (2007) suggest that entrepreneurship is at the interface between the private and public, which indicate culturally constructed moral boundaries for entrepreneurial behaviour.

A cultural context is important to understand how and why entrepreneurship happens and who becomes involved. Culture, as informal institutions, can 'influence national or regional rates of entrepreneurship by creating a larger supply of potential entrepreneurs' (Hayton et al., 2002). Following Etzioni's (1987, p.182) arguments of legitimation (which means 'a wide set of values and mores that provide moral approval of specific activities or institutions whether or not legal sanction is involved') entrepreneurship can be regarded as a prime activity, an acceptable activity, an activity suitable only for the minority or as a highly tabooed activity. The main sources of legitimation are the values of society, hence a greater rate of entrepreneurship is found in societies where the entrepreneur is valued.

Many publications describe a special environment for entrepreneurship in transition countries of Central and Eastern Europe (CEE) (e.g. Manolova et al. (2008), Gibb (2002), Chelariu et al. (2008)). McMillan and Woodruff (2002) argued even that the success or failure of a transitional economy depends on the performance of its entrepreneurs, who in fact took over a role of reformers by introducing new ways of doing business. It has been noted that the state owned companies of communism have been replaced mostly by SMEs, the engine of economic growth (Despiney, 2005).

To conclude one of the most important findings in the SME literature is that context matters as it shapes the role of small firms and also their structure and performance (Karlsson and Dahlberg, 2003). The transition countries of Central and Eastern Europe seem particularly suited for a study on the influence of context. They have all undergone a tremendous amount of economic and social change which resulted in the development of a new private sector. As Earle and Sakova (2001, p.6) have noted: "It is difficult to imagine a regime more hostile towards entrepreneurship then the centrally planned economies of Eastern Europe".

The main question then is whether culture and entrepreneurship can evolve together over time influencing each other and what is the result of this interaction? To answer this question further investigation is needed. Thus this research will focus on how the systemic transformation and EU accession, influenced both beliefs and behaviour of entrepreneurs.

3. Methodology

Culture is understood in this study as a set of values and beliefs which create patterns of expected behaviour. Values are more general and identify those objects, conditions or characteristics that members of the society consider important whereas beliefs are more concrete, about certain phenomena. This corresponds with previous research on entrepreneurship (Hofstede (1980), Herbig (1994)).

The cultural context can be multidimensional, hence this research will focus mainly on the start-up phase of SMEs to find the connection between the common cultural change, attitudes to entrepreneurship and transformation of behaviour of nascent entrepreneurs over time. The entrepreneur will be then understood as a person who opened a business (SME) at a specific point in time. This approach will enable a comparison across time which can pinpoint the role of culture and entrepreneurship in the proceeding transformation - through a focus on temporal aspects of change and analysing the patterns of cultural perception related to entrepreneurship. A qualitative approach was adopted to obtain data and information connected with factors leading to the decision to start up.

Furthermore, the focus on analytical observations when researching soft social factors of entrepreneurship (Audretsh, 2002) such as culture should be narrowed down to regions rather than nations. This approach will permit the researcher to establish specific paths and path dependencies

of economic and social development, which will allow the analysis of regional prosperities within their own logics of evolution (Audretsh et al., 2008). Fieldwork has been carried out in the Lower Silesia region which geographically and historically is susceptible to the effects of westernisation (the frontier of change). To assess the impact of change initiated by systemic change and EU accession three groups of SMEs were selected, with start-up dates around the year 1990, then 10 and 20 years later. The first of these two dates provide an overview of the effects of systemic change on entrepreneurship in both short and long term (associated with transition) whereas 2010 allows the researcher the opportunity to analyse the outcomes related to EU accession. Semi-structured interviews have been conducted on a selected samples of entrepreneurs (approx. 10 for each stage).

The research followed the requirements presented by Neergaard (2006). Sampling was event based. It also applied a purposeful sampling by focusing on the founder of the company and the maximum variation strategy has been applied using a multi-case study to document variation and identify patterns of commonality. The data analysis was performed with the use of NVivo software.

4. Findings

First the overview of the sample from all years will be discussed, followed by the analysis of the most anticipated behaviour. Finally a discussion about motivations and change is presented.

4.1 Profiles of entrepreneurial behaviour

Year 1990

In the research for 1990 four profiles of entrepreneurs were identified. For analytical simplification they will be called: traditionalist, graduate turned to entrepreneur, family successor and new entrepreneur.

A traditionalist was a person who opened a business in order to maintain the status quo in their life (doing the same job). The example of that could be the owner of a service company who did not have other choices in order to keep his job:

This company came into existence; generally speaking they came into existence everywhere in the Lower Silesia, as a result of the WPHW disintegration.

Faced by possible unemployment they decided to '*take matters into his own hands*' and start a company. This may also suggest that privatisation forced/pushed traditionalist into entrepreneurship:

(...) and literally they said if the crew won't take it over... I mean such workshops would simply disappear.

In comparison to former professions almost everything remained intact:

Well, it was easier to take it over, because a man knew all these things. There were warehouses …and in practice a man himself went around to get some parts... and so it happened.

Apparently it was easier to start a business in a known environment, using past experiences, than face the consequence of disintegration of a state company:

I wanted to do what I knew. Only in my profession. Trade, transport and other things were out of the question. (...)

Although traditionalist's economic behaviour was interrupted by systemic change they did manage to find a way to minimise the consequences and keep their job. Nevertheless, the focus on maintaining their position made them unaware of any requirements associated with having a company. Thus their strategy for business opening could be called 'to do the same'.

Another pattern was observed in 'graduate turned to entrepreneur'. This type of entrepreneur had worked in the private sector already in socialism. Usually after completing their higher education they decided to go through a vocational training since it was the only opportunity to start a business. This change in behaviour was related to work expectations and better income:

(...) in the meantime a friend called me (...) we started to talk about money (...)'Well'- he said- 'you know I cannot guarantee you a permanent source of income, such as earnings in the public company but somewhere between 25 and 30 but during bad times about 25 ok? Well, I had suddenly four times more and I was tempted…I bought some machines and in the 80's probably for over 2 or 3 years…until 89' I led carpentry.

Nevertheless, after systemic change the graduate turned to entrepreneur transformed their workshop into something else, more suitable to meet new market opportunities. By changing their approach and using previous experiences they managed to adapt to changing circumstances. Thus their strategy could be called 'to continue on'.

I closed the workshop and began to play with what I like more. Following the profile of my studies, I mean foreign trade (...) then it went from small deliveries to already quite large ones (...)

A family successor was a person who usually gained some knowledge of entrepreneurship from their family but did not consider opening a business. This might suggest that in socialism their situation did not require this type of behaviour or that the value of entrepreneurship as an alternative to previous employment became appealing only after systemic change.

(...) some sort of entrepreneurship in that sense was in the house; so four of us brothers, each one have their own business. (...) so that perhaps we have learned entrepreneurship from home

This entrepreneur also highlighted:

You could notice that the situation was changing and I was wondering whether to be an employer or employee. (...) I came to the conclusion that in the new times you cannot work for somebody but you need to hire employees.

Systemic change could be regarded here as a pull factor for the entrepreneur- to open a company to hire other workers, not only to organise a workplace for themselves.

Finally the profile called 'new entrepreneur' consisted of people who had understanding of what they wanted to achieve in the future and what would be required.

Well, from the second year of study I stated that I'll never work on someone but on myself. And already during the study I observed my boss in relation to organisation, documentation, and other stuff.

Having contacts with other entrepreneurs, this entrepreneur was carefully planning everything by using all available resources and only waited on an opportunity to open his own business.

This period could be characterised by high continuity in occupation, with very individual approach to entrepreneurship and negligible entrepreneurial identification. At the beginning most of the entrepreneurs treated their businesses as another type of work and they did not know how to act differently.

Entrepreneurial opportunity was regarded more in connection to general work values. To some extent personal circumstances proved to be more important for the change of economic behaviour than profit advantages. Nevertheless, entrepreneurs from this time period did not consider changing their behaviour in the future by going back to employment. The evidence suggests an individual approach to entrepreneurship, where entrepreneurs could be treated as actors of change who introduced entrepreneurial behaviour to the culture. Since many entrepreneurs started businesses without the actual knowledge of what would be required they also did not know how to behave. They did not have clear signposts and in most cases they were more interested in maintaining status.

Year 2000

For the year 2000, the sample suggests another pattern of behaviour, which relied heavily on opportunity factors:

(...) it is like with the most things in life when it is said that a man plans something, a career…it is shaped by often unexpected situations…that are consequences of different events.

Whereas the owner of the business service who had already had a successful furniture trade company said:

The start-up of the business service did not start abruptly, it was a smooth start.

It was found that in this time period all entrepreneurs based their start up behaviour on previously acquired social capital. Whether this was somebody opening another business, starting a business after working for a private company or using the knowledge of family members:

I had probably quite a big knowledge capital compared to others because I worked in Poland and Germany. In relation to that I knew much. (...) I already learned quite a lot (...) and I learned how to conduct business, and negotiations… it sometimes requires very harsh action.

The last statement probably relates to the cultural recognition of entrepreneurial behaviour and certain beliefs (about starting a business) available during that time.

All businesses relied heavily on relationships. Using already available contacts or resources. After ten years of transition, people were already familiar with entrepreneurship and could use this knowledge to their advantage:

We had a colleague whom I met there earlier, he also offered cooperation to me, he was a big distributor and had here in Poland many vendors; at the time I also went into the possession of a medium-sized manufacturing plant, and on the one side I had these opportunities here, contacts there; …the production capacity here.

Whereas an entrepreneur who opened his second business said:

I knew these people from different industries (…) They said you know our colleague, friend or somebody wants to know, wants to enter the Polish market, or wants something to sell or buy …

When asked about the reason for opening the company answers such as: '*and after the last employment for somebody I was disappointed in such ideas like I have the capital you create a team (…) I decided to open my own business. To risk'* may suggest that the decisive role in changing behaviour was played by dissatisfaction from previous private employment or the will to utilise skills acquired in private companies. Thus, this time period could be characterised by more similarities in group than by individuals' behaviour.

Year 2010

The year 2010 moved the entrepreneurship concept to the societal level where the profile of the entrepreneur manifested in many different behaviours and the major incentive was European funding. Almost all entrepreneurs from the sample tried to get some funding before considering opening a business. In this sense the division could be based on those who managed to get the funding or not. An example of this is the owner of a consulting firm. When asked why did he start he answered:

In the way that I got a grant to start my own business and it was the need of, well a life already…

Whereas other elaborated more on the financial constraints that resulted from not getting their expected support:

I cannot afford, unfortunately, to have some extra stuff. I had applied for grants, but I did not get the grant. Well, I must rely on what I have… furniture over 15 years old …

This suggests that many entrepreneurs treated EU funds as a financial source for start-up and an important incentive to start.

The experience of the younger generation of people who had for most of their lives lived in the free market economy had changed the approach to entrepreneurship. One of them recalled:

My parents owned businesses since I remember and they always told me that you are only dependent on yourself and it also seemed to me that one day…I will have to, maybe not have to but I knew I will open (a company).

Nevertheless, having previous personal experience was not so important anymore since all of society (following the EU policy) were encouraged to open a business. This also led to the generalisation of entrepreneurial behaviour by introducing support services and legal facilities.

The change also occurred in people's attitudes towards entrepreneurship as a career choice. Most people treated entrepreneurship usually as a stage in life (for example they considered going back to employment) but not as the way of life. Many just wanted to see how they would manage. Some of them were also encouraged by their environment to attempt this type of behaviour:

A cousin said something like 'why you have not yet opened up a company?' (...) For year, the whole year he was playing on my nerves' … Well, at one point he told me that I had wasted a year, that I should have had the company already (...)

This external support suggests also the acceptance of entrepreneurship as a profession, where the profile of the company is not important anymore, but the company itself. The most surprising outcome from the data acquired was the lack of continuity of profession obtained during five years of study with the profile of enterprise. Some of the entrepreneurs started the business as the result of unemployment. To support them the Employment Office provided necessary training and they could apply for initial capital. They also got some reductions in tax burdens during their first two years of operation.

The cohesion policy resulted in incorporation of certain patterns of required behaviour into society and previously unaware existing rules (e.g. business ethics). Thus people started to believe that opening a business is not so difficult and valued more this type of activity. Entrepreneurship became more natural "*if you are not working for somebody you work for yourself*". Through funding came a legal framework and competitiveness, but also the belief that entrepreneurs were gaining more from the EU accession than other social groups.

The change towards societal perspective uncovered also negative aspects of competition. This created another behaviour that differed from previous periods (usually associated with new entrepreneurs). In order to compete on highly uncertain market entrepreneurs tried to organise themselves and share customers:

(...) it is no longer important whether I win or lose, we can always work together. But I think that only the younger generation has such an approach I will put all my cards on the table and maybe not tomorrow but after the month the customer will come back to me. And an entrepreneur of the age of our parents will not show his cards, will not tell anything, will not give a hand, he will be afraid that next day he will be stabbed in the back…

This implies a change in behaviour between generations of entrepreneurs.

To sum up, the study for this year uncovered high correlation between EU funding and entrepreneurial behaviour. Different individuals wanted to open a business tempted by the funding and thus the behaviour could be characterised by a temporal (short-term) approach. It is plausible to place in this pattern the influence of global crisis but also unpredictable state policy towards entrepreneurs in Poland.

4.2 Discussion on motivations and change

Based on the results, the pattern of entrepreneurial development in Poland could be described as bottom up (Berger, 1991) and confirms social legitimation theory (Etzioni, 1997). The systemic transformation enabled individuals to change their career path and their new behaviour resulted in opening a private company. The examples presented here suggest that although individual motivations were quite different, the entrepreneurs could be regarded in this period as actors of cultural change. By introducing a new type of behaviour they influenced existent culture. Although they managed to introduce change in the pattern of expected behaviour the lack of fundamental business values resulted in negative beliefs of society about entrepreneurship. Hence the entrepreneurs in 2000 were identified as a separate group within society and entrepreneurship was not regarded as a highly respectable profession (see CBOS (1999) and Flash Eurobarometer (2007)). The EU accession introduced another change to behaviour by incorporating EU values and beliefs about entrepreneurship into a national culture. Entrepreneurs also needed to adapt to the single market environment by incorporating certain behavioural patterns to open and run a business in changing circumstances. The policies of the EU set up standards and expectations, thus entrepreneurship can be regarded as an example of social integration, which influenced the culture by adapting it to the changing environment. It is also indicated that increased visual social legitimation of entrepreneurship (Etizioni, 1987) created a viable platform. Furthermore, European

integration caused a cultural transfer from West to East in the form of a spill over effect of knowledge transfer. It seems that the importance of entrepreneurship in the EU helped to develop pro-entrepreneurial approach in Poland after accession.

This research indicates that over 20 years the change in cultural perception of entrepreneurship progressed from individual, towards group to a societal perspective. Although Poland did not have much experience in developing the free market economy before 1990, entrepreneurship as the central actor of the knowledge based economy enabled catching up with the rest of the world. However, further research needs to be undertaken in order to explain existing correlations between values, beliefs and behaviour.

5. Conclusion

The main aim of this research was to observe the pattern of an environmental change from a cultural perspective in relationship to entrepreneurship within a regional setting. Much entrepreneurial research has behaved similar to those of economics and neglected the existence of culture; introducing informal institutions instead. Nevertheless, as Portes (2006) stated, institutions do not revolutionise themselves and need deeper forces to give them a form and a direction. Hence, culture could be understood as a set of values and beliefs commonly shared amongst people, which leads to an expected behavioural pattern as a response to them.

Another important issue is the level of appropriate analysis. The authors argued that depending on the settings different subjects act as actors of cultural change. Sometimes entrepreneurs can be regarded as individuals who pursue their ‘creative destruction’ activity. Another time they could be regarded as a group which shares similar approaches and behavioural patterns. Finally, the society as a whole sharing the same ideas about entrepreneurship can be indicated. This can lead eventually to institutionalisation of entrepreneurship, rooted in a culture. This argument has been presented through an example from a country faced by both systemic change and EU accession, where different revolutionary changes led to different outcomes over time.

Because culture has many facets and is very hard to capture in any kind of settings this study focused on the start-up phase of a company and entrepreneurial behaviour was related to opening a business. By interviewing entrepreneurs who started their businesses in different periods it enabled the authors to find a pattern in attitudes towards entrepreneurship and entrepreneurial behaviour.

References

1. Anderson, A., Smith, R. (2007). The moral space in entrepreneurship: an exploration of ethical imperatives and the moral legitimacy of being enterprising. *Entrepreneurship and Regional Development.* Volume: 19, pp. 479-497
2. Audretsch, DB (2002). Entrepreneurship: A Survey of the Literature, Brussels: Commission of the European Union, Enterprise Directorate General
3. Audretsch, DB, Falck, O, Feldman, M., Heblich, S. (2008). The lifecycle of regions, discussion paper no. 6757, CEPR, Munich
4. Baumol, W.J. (1990). Entrepreneurship: Productive, Unproductive and Destructive. *Journal of Political Economy.* 98 (5), pp. 893-921
5. Berger, B. (1991). The Culture of Modern Entrepreneurship in: Berger B. (edit.) *The Culture of Entrepreneurship*. ICS Press, San Francisco, California
6. Bukowski, A., Gadowska, K., Polak, P. (2008). Barriers and Obstacles in the Process of Awarding and Implementation of EU Funds in Poland. Systemic Analysis. *Polish Sociological Review.* Volume: 164 Issue: 4, pp. 437- 469

7. CBOS ((Public Opinion Research Centre) (1999). report Prestiż zawodów BS/32/99 http://www.cbos.pl/SPISKOM.POL/1999/K_032_99.PDF (last accessed on 30.01.2015)
8. Chelariu, C., Brashear, TG., Osmonbekov, T., Zait, A. (2008). Entrepreneurial propensity in a transition economy: exploring micro-level and meso-level cultural antecedents**.** *Journal of Business & Industrial Marketing.* Volume: 23 Issue: 6, pp. 405- 415
9. Despiney, B.A., (2005). Building entrepreneurial capacity in post-Communist Poland: A case study *Human Factors and Ergonomics in Manufacturing* Volume: 15 Issue: 1, pp. 109-126
10. Earle, J. and Sakova, Z. (2001). Entrepreneurship from scratch. *SSRN Working paper*, http://papers.ssrn.com (last accessed on 30.01.2015)
11. European Bank of Reconstruction and Development (EBRD) (1995). *Transition Report.* London
12. Etzioni, A. (1987). Entrepreneurship, adaptation and legitimation. *Journal of Economic Behavior and Organization* .Volume: 8, pp. 175-189
13. Flash Eurobarometer 2007 (last accessed on 30.01.2015) http://ec.europa.eu/enterprise/policies/sme/files/survey/static2008/poland_static_en.pdf
14. Gibb, A. (2002). In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews.* Volume: 4 Issue: 3, pp. 233-269
15. Guiso, L., Sapienza, P., Zingales, L. (2006). Does Culture Affects Economic Outcomes? *Journal of Economic Perspectives.* Volume 20 Issue 2, pp. 23-48
16. Hayton, J.C., George, G.I., Zahra, S.A. (2002). National Culture and Entrepreneurship: A Review of Behavioral Research. *Entrepreneurship Theory and Practice* Summer, pp. 33-52
17. Herbig, P. (1994). The innovation matrix: Culture and structure prerequisites to innovation. Westport, CT: Quorum
18. Hofstede, G. (1980). *Culture's Consequences: International differences in work related values*. Beverly Hills CA: Sage
19. Karlsson, C. and Dahlberg, R. (2003). Entrepreneurship, Firm Growth and Regional Development in the New Economic Geography: Introduction. *Small Business Economics.* Volume: 21, pp. 73- 76
20. Karwińska, A. (2005). Social Perceptions of the Post-1989 Transformations in Poland. *Argumenta Oeconomica Cracoviensia.* Volume 4, pp. 71-91
21. Manolova, TS; Eunni, RV; Gyoshev, BS. (2008). Institutional environments for entrepreneurship: Evidence from emerging economies in Eastern Europe. *Entrepreneurship Theory and Practice.* Volume: 32 Issue: 1, pp. 203-218
22. Marody, M., Kochanowicz, J. (2007). Pojęcie kultury ekonomicznej w wyjaśnianiu polskich przemian. in: Kochanowicz J., Mandes S., Marody M. (edit.) *Kulturowe aspekty transformacji ekonomicznej*. Instytut Spraw Publicznych Warszawa Poland
23. McMillan, J. and Woodruff, C. (2002). The central role of entrepreneurs in transition economies. *The Journal of Economic Perspectives.* Volume: 16 Issue: 3, pp. 153-170
24. Mueller, SL., Thomas, AS. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness**.** *Journal of Business Venturing.* Volume: 16 Issue: 1, pp. 51-75
25. Neergaard, H. (2007). Sampling in entrepreneurial settings. In: Neergaard, H. and Ulhoi, J.P. (eds.) *Handbook of Qualitative Research Methods in Entrepreneurship*. Cheltenham: Edward Elgar Publishing.
26. Portes, A. (2006). Institutions and Development: A conceptual Reanalysis *Population and development review.* Volume: 32 Issue: 2, pp. 233-262

27. Smallbone, D. and Welter, F. (2001). The Distinctiveness of Entrepreneurship in Transition Economies *Small Business Economics.* Volume: 16, pp. 249-262
28. Ziemilski, A. (1995). *Polska w latach dziewięćdziesiątych. Problemy społecznego przystosowania do Wielkiej Zmiany.* Institute of Culture Warsaw Poland

THE DETERMINANTS OF EARLY STAGE ENTREPRENEURS' COMPETITIVENESS IN DANUBE REGION

Karin Širec, PhD, Associate Professor[292]

Dijana Močnik, PhD, Associate Professor[293]

Abstract

The extent of competition that companies face is the topic of a heated debate in strategic management literature, where two schools of thought differ in their views of the importance of competition for companies. Proponents of the competitive strategy school of thought argue that, although it is possible for companies to make high profits and avoid competition temporarily by means of innovation, the imitation and consequent erosion of profits will occur relatively quickly, and the long-term state is one of competition with close rivals (Porter, 1980, 1985). On the other hand, proponents of the blue ocean strategy school of thought argue that, by exploiting 'untapped markets' through innovation, it is possible for firms to structurally avoid competition by continuously creating new market demand (Kim and Mauborgne, 2005). In our research, we try to contribute to a better understanding of the different levels of competition and highlight its determinants across Danube Region countries' early stage entrepreneurs. This paper aims to assess the relationship among companies' innovation activity, international orientation, growth aspirations about future employment and the level of competition they are facing.

The data were obtained from the 2013 Global Entrepreneurship Monitor Adult Population Survey. Our analysis is based on a sample of 1,700 cases from eight Danube region's countries (Bosnia and Herzegovina, Croatia, Czech Republic, Germany, Hungary, Romania, Slovakia and Slovenia). We built a binary logistic regression model assuming that the criterion variable is a linear combination of the four predictors and five control variables.

The findings show that early stage entrepreneurs who innovate by means of introducing new products or services and in particular by using new technologies are overrepresented in markets with limited competition (blue oceans). Strong internationally oriented early stage entrepreneurs more often enter new niche markets while weak internationally oriented early stage entrepreneurs more often enter highly competitive markets. Finally, early stage entrepreneurs who aspire to create five or more jobs in the next five years are also overrepresented in markets with limited competition.

***Keywords**: Global Entrepreneurship Monitor, competitiveness level, innovation activity, international orientation, firm growth aspirations*

[292] University of Maribor, Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenia, E-mail: karin.sirec@um.si

[293] University of Maribor, Faculty of Electrical Engineering and Computer Science, Smetanova 17, 2000 Maribor; Slovenia, E-mail: dijana.mocnik@um.si

Introduction

Although the EU policy strives to unify the EU market as much as possible, extensive country as well as regional differences in economic growth and the prosperity between them still exist. In April 2011, the Council of the European Union adopted the EU Strategy for the Danube Region (EUSDR). The main challenge for the Danube Region is to improve cohesion and increase competitiveness through cooperation. The less developed economies need to catch up at a faster pace with the wealthier Danube countries than they have in the past (ZEW, IAW, wiiw, 2014). Strengthening the knowledge of regional differences in entrepreneurial activity and its determinants—the main focus of the presented research—is of the utmost importance.

When comparing entrepreneurial activity across regions, it is important to take into account that not all companies can be regarded as entrepreneurial (Wennekers and Thurik, 1999) or productive (Baumol, 1990). Entrepreneurs[294] who are in the process of setting up their own business can enter markets with more limited or higher levels of competition (van der Zwan et al., 2012), thereby differently impacting the economic development of the country. Our research concentrates on the relationship among companies' innovation activity, international orientation, growth aspirations about future employment and the level of competition they are facing. In the policymaking context, more competitive entrepreneurial activity is considered a prerequisite for economic growth. According to Bosma and Schutjens (2011, 2007), an evident gap exists in studies on entrepreneurial activity that simultaneously encompass regions and countries. Therefore, investigating determinants of entrepreneurship over a region (in our case, the Danube Region) enables us to disentangle regional demography attributes (e.g., identifying ambitious entrepreneurs), institutional components (e.g., educational system) and specific regional attributes (e.g., international orientation).

The extent of competition that companies face is actually a topic of heated debate in strategic management literature, where two schools of thought differ in their views of the importance of competition for companies. Proponents of the competitive strategy school of thought argue that, although it is possible for companies to generate high profits and temporarily avoid competition by means of innovation, imitation and the erosion of profits will occur relatively quickly, and the long-term state is one of competition with close rivals (Porter, 1980, 1985). On the other hand, proponents of the blue ocean strategy school of thought argue that, by exploiting untapped markets through innovation, it is possible for firms to structurally avoid competition by continuously creating new market demand (Kim and Mauborgne, 2005). In this paper, we try to contribute to a better understanding of the determinants of different levels of competition and highlight their possible differences between the Danube Region's early stage entrepreneurs.

Our research is based on GEM, whose contribution to the knowledge and understanding of the entrepreneurial process is unique as it is the only existing dataset that can provide consistent cross-country comparisons and information on entrepreneurial activity. We derived data from the GEM research for the year 2013. The Danube Region countries that participated in GEM and in which we were interested included Austria, Bosnia and Herzegovina, Croatia, the Czech Republic, Germany, Hungary, Romania, Slovakia and Slovenia.

This paper is divided into six sections. Section two presents the theoretical background. Section three describes research hypotheses. Section four presents the data, variables and model. In section five, the results are explained. Section six presents the discussion and conclusion.

[294] According to GEM, the main focus in this chapter focuses on early stage entrepreneurial activity, measured by the share of adults (18 to 65 years old) who are personally involved in the creation of a new venture and are at the same time employed as owners–managers of a new firm that is less than three and a half years old or are in the process of establishing a new firm.

Theoretical background

Entrepreneurs exploit new opportunities and are associated with disturbing the market equilibrium. They often revolutionise industries overturning long-established technologies, business models and dominant companies. In order to do so, they innovate and take risks. As early as 1973, Kirzner argued that when markets are in disequilibrium, profit opportunities exist in the market, which are exploited by entrepreneurs. He highlighted that this process of bringing markets to equilibrium is inherently competitive, as each individual entrepreneur tries to make a better offer than other entrepreneurs in the markets. This competitive entrepreneurial process continues until profit opportunities are eliminated. In fact, he argued that it is exactly this competitive nature of market that stimulates entrepreneurs towards better offerings that will assure more profit (Kirzner, 1973). Although the competitive nature of the market process is highlighted and the entry of entrepreneurs is associated with market disequilibrium, Kirzner did not address whether new entrepreneurs will choose to enter markets with low or high levels of competition. Some have argued that entrepreneurs enter markets with high competition, as the presence of many competitors signals the existence of profit opportunities. Entrepreneurs will enter these markets to try to capture profits from other entrepreneurs. In this situation, entrepreneurs contribute to an adjustment process towards equilibrium, often by means of imitation. Entrepreneurs, however, could also decide to enter markets with limited competition in which they are able to take—at least temporarily—some kind of monopoly position (Schumpeter, 1934). Typically, in these situations, entrepreneurs contribute to creating disequilibrium by introducing innovations. Over time, imitation by other entrepreneurs occurs, and the temporary profits enjoyed by the innovator are eroded. Hence, entrepreneurs might contribute both to creating disequilibrium (e.g., by introducing innovations which make extant technology obsolete—creative destruction) and to adjustment towards the (new) equilibrium by diffusion of innovation and imitation (Schultz, 1975).

Our discussion will follow the proponents of the blue ocean strategy school of thought (Kim and Mauborgne, 2005), arguing that it is possible to find sufficient untapped markets and that imitation occurs more slowly so that innovators can enjoy higher profits for a longer period of time. This period would in fact be so long that a strategy focused on finding new markets (blue oceans) is a sustainable strategy for a sufficient number of firms. The implication for managers of companies is that the main strategic concern lies with managing innovation if one takes a blue ocean strategy point of view (Burke et al., 2008).

Research propositions

In the next sections, we will explore whether there are any differences between early stage entrepreneurs who enter markets with high (red oceans—many competitors) or low (blue oceans—few or no competitors) competition in terms of their aspiration on innovation, internationalisation and job growth. This enables us to explore the extent to which entrepreneurs with different aspirations enter different types of markets (i.e., high versus low competition markets).

Innovation activity and competition

Entrepreneurial innovativeness depends on both individual factors and the environment in which the individual acts. The distribution of innovative and imitative entrepreneurship varies across countries. Entrepreneurs in highly developed countries are significantly more likely to engage in innovative rather than purely imitative activities (Koellinger, 2008). The objective existence of business opportunities in general, whether innovative or imitative, is influenced by environmental factors such as changes in technology, politics, regulation and demographics or by other trends in society, such as changes in culture, fashion and urbanization (Koellinger, 2008). An

individual's probability of exploiting an innovative business idea is a function of various factors that influence the objective existence and distribution of business opportunities in the environment, individual creativity and the alertness to business opportunities—all of which are related to the question "where do business opportunities come from?" In addition, individual preferences, opportunity costs, cognitive styles and the use of particular decision heuristics influence the probability that someone who developed an innovative business idea actually decides to exploit it (Koellinger, 2008).

According to market process theory, both imitators and innovators are entrepreneurial in the sense that they play an important role in disequilibrium (Kirzner, 1973; Schumpeter, 1934). Although innovators compete mainly on quality, imitators compete mainly on price. Imitators and innovators can both be found in markets with high as well as with low competition. Our first research hypothesis (H1) reads:

H1: Innovation activity is significantly related to the extent of market competition, with more innovative early stage entrepreneurs entering markets with rather low competition.

International orientation and competition

Several theories from the international business literature have been presented to explain why firms engage in international operations. The monopolistic advantage theory suggests that firms will internationalize when they can use their established advantages in foreign countries at little or no additional cost. Meanwhile, product cycle theory suggests that firms internationalize to protect their existing markets of mature products or services. Finally, the stage theory of internationalization suggests that a firm's international operations will gradually increase as it gains knowledge and experience in the international arena and develops relationships across international boundaries (Westhead et al., 2001).

In the evermore globalizing economy, economies' global trade becomes increasingly important. Multinational enterprises are not unique in their international orientations; new and smaller companies are using the latest technologies to become increasingly well equipped to expand the scope of their business. Entrepreneurs seek international markets for various reasons. Their products or services might be more suitable for international markets. Their internal markets might be too small or immature. They might face intense local competition, motivating them to pursue customers outside their borders. Alternatively, internationalization might be motivated by a desire to more broadly leverage substantial investments in their businesses. Geographic factors (e.g., country size, location) and connections with strategic partners in new locales can also affect cross-border activities (Kelley et al., 2011; Močnik and Širec, 2010).

A specific GEM measure assesses the extent to which entrepreneurs sell to customers outside their economies. Internationalization is—on average—lowest in the factor-driven economies and increases with the economic development level (Bosma et al., 2012; Pete et al., 2011). Based on Porter's five stages typology (Porter et al., 2002), three of the investigated countries in our sample are innovation-driven economies (Germany, the Czech Republic and Slovenia), Hungary and Croatia are in transition from efficiency-driven to innovation-driven, and Bosnia and Herzegovina, Slovakia and Romania are classified as efficiency-driven economies. In line with the discussed circumstances, we presuppose a significant relationship between the international orientation of early stage entrepreneurs and the level of market competition they are facing. Our second research hypothesis (H2) reads:

H2: International orientation is significantly related to the extent of market competition, with more export-oriented early stage entrepreneurs entering markets with rather low competition.

Growth aspirations and competition

Entrepreneurship research and practice emphasize company growth as a measure of entrepreneurial success. One reason why society values entrepreneurs is their potential to create employment opportunities for others (van der Zwan et al., 2012). According to Davidsson (1991), firm growth is an indication of continued entrepreneurship (Gundry and Welsch, 2001). Penrose (1959) argued that growth-oriented firms might be more likely to attract extraordinary management talent as well as financial support from investors, allies and competitors. Thus, growth is assumed to be beneficial and something that entrepreneurial firms should seek to achieve (Markman and Gartner, 2002).

The variable of firm growth aspirations is added to our investigation as the growth enables small companies to achieve a competitive advantage which can be developed and is implicated by innovation (Obeng et al., 2014). Van der Zwan et al. (2012) suggested that a considerable majority of ambitious entrepreneurs expect to realize their ambition by increasing their market shares in new niche markets. In terms of the blue ocean strategy, it seems that the majority of ambitious entrepreneurs believe that sufficient untapped markets (blue oceans) exist or can be created in order to realize their job growth ambitions. In other words, the result suggests that the majority of ambitious entrepreneurs believe that the blue ocean strategy is in fact a viable long-term strategy, consistent with empirical findings from Burke et al. (2008). Hence, the third research hypothesis (H3) reads:

H3: Firm growth aspirations are significantly related to the extent of market competition, with more new jobs being expected by early stage entrepreneurs entering markets with low competition.

All three hypotheses were tested for early stage entrepreneurs in selected Danube Region countries.

Data, variables and model

Data

Research data were derived from the GEM research. Bosma et al. (2012) fully explained the GEM study's content and procedures. GEM is a large-scale entrepreneurship research program launched with ten countries in 1997. In 2013, the coverage was extended to 69 countries. Our research data were derived from the GEM's pooled Adult Population Survey for 2013. Table 1 indicates the total number of interviewed adults, 18 to 65 years old, in selected countries. Interviews were conducted using the Computer Assisted Telephone Interviewing (CATI) method. Our analysis is based on a sample of 1,666 to 1,759 cases from eight Danube region's countries. Table 1 presents the data for the criterion variable and predictors of early stage entrepreneurs by country in alphabetical order of countries' names.

Table 1: Sample data for criterion variable and predictors across Danube region, 2013

Variable	Category	Bosnia and Herze-govina	Croatia	Czech Republic	Germany	Hungary	Romania	Slovakia	Slovenia	**Total**
Number of competitors	Many	99	75	216	160	121	125	128	56	980
	Few or none	108	90	152	138	73	79	63	74	777
	Total	207	165	368	165	194	204	191	130	**1757**
Technology age	Newer than one year	67	34	40	20	11	34	32	14	252
	One to five years	48	45	90	40	26	62	40	20	371
	More than five years	93	87	237	238	157	109	119	96	1136
	Total	208	166	367	298	194	205	191	130	**1759**
Product is new to all or some customers	No	143	116	176	177	141	109	93	68	1023
	Yes	64	49	191	121	52	96	98	62	733
	Total	207	165	367	298	193	205	191	130	**1756**
Export intensity	More than 75%	16	30	18	14	11	22	11	19	141
	25%-75%	26	32	39	31	30	39	28	13	238
	Under 25%	74	64	226	107	75	74	121	58	799
	None	86	24	69	129	67	57	24	32	488
	Total	202	150	352	281	183	192	184	122	**1666**
Expects more than five employees in next five years	No	134	115	265	232	142	115	135	84	1222
	Yes	73	51	103	66	52	90	56	46	537
	Total	207	166	368	298	194	205	191	130	**1759**

Variables

This section describes measurements for all investigated categories drawn from the GEM research. We presented the criterion variable (i.e., the intensity of competition) and four predictors (i.e., age of technology; newness of the product or service; export intensity; expectations of new employment). For additional explanation we added five control variables (i.e., gender; age; educational level; knowledge, skills and experiences and individual Danube region countries)**.** We built a model for early stage entrepreneurs from the sampled countries of Danube region.

Criterion variable

Early-stage entrepreneurs were asked to answer the following question:

- *How many businesses offer the same product?* Possible answers were: Many, Few and None. Because of unexpected singularities in the Hessian matrix[295], we merged the categories of Few and None into Few or none. Final coding of this variable was: Many and Few or none. 'Many' represents the reference category.

Predictors

The estimation model for binary logistic regression included four predictors:

- *Age of technology.* Respondents indicated the category of technology age. Possible answers were: Very latest technology (newer than one year); New technology (one to five years); No new technology (more than five years) (reference indicator).
- *Newness of the product.* Respondents answered the question 'Is the product new to all or some customers?'. Possible answers were: No or Yes (reference indicator).

[295] The criterion variable had only one value observed in 1547 (96.7%) subpopulations.

- *Export Intensity*. Respondents chose from among four categories: More than 75%, 25%–75% , Under 25% or None (reference indicator).
- *Expects more than 5 employees in next five years.* Respondents indicated whether they expect to hire more than five employees in the next five years. Possible answers were No or Yes (reference indicator).

Binary logistic regression model

We built a binary logistic regression model for the year 2013. By the model, we assumed that the criterion variable is a linear combination of the four predictors and five control variables. The model for estimation reads:

$$Logit\ [P(y=1)]_i = a + B_{1m}\ (Technology\ age)_{mi} + B_2\ (Product\ newness)_i + B_{3n}\ (Export\ intensity)_{ni} + B_4\ (New\ jobs)_i + B_5\ Gender_i + B_{6k}\ Age_{ki} + B_{7l}\ (Educational\ level)_{li} + B_8\ (Knowledge,\ skills\ and\ experiences)_i + B_{9o}\ Country_{oi} + e_i \quad (1)$$

where *Logit [P(y=1)]* is the criterion variable (i.e., the binary logit estimate for few or none competitors); *a* is the binary logit for the regression constant; *B* is the binary logit estimate for the regression coefficients of predictors and control variables (added as dummy variables); *m* is the index of two categories of technology age (*m* = 1, 2); *n* is the index of three categories of export intensity (n = 1, 2, 3); *k* is the index for four categories of age (*k* = 1,.., 4); *l* is the index of three categories of educational level (*l* = 1, 2, 3); *o* is the index of seven countries (n = 1, …, 7); *i* is the index for the number of cases (N = 1,700); and e_{ji} is the binary logit estimate for the error term.

Results

In the following, we analyze the results presented in Table 2 in greater detail. First, we checked standard errors to uncover possible numerical problems. As all standard errors (third column of Table 2) are less than 2, there is no problem interpreting the results.

The results show that statistically significant are the following predictors: technology age that is newer than one year, newness of the product, export intensity in the range of 25% to 75% and new employment. Only one (of seven) Danube countries, namely Romania, have no significant impact on competitiveness, whereas other six countries significantly impact the competitiveness with which early stage entrepreneurs are facing in their own country, compared to Slovakia. Control variables: gender, age, educational level and knowledge, skills and experiences did not prove to be significant indicators of competitive intensity.

The binary logit estimates for technology age and export intensity are positive and significant whereas negative for product newness and expectations to hire new employees. The binary logit estimates for the impact on competitiveness of early stage entrepreneurs of the six countries are positive and significant as well.

The odds ratio [Exp(B) column in Table 2] of technology age indicates that the likelihood of having few or none competitors for an early stage entrepreneur that uses the technology that is newer than one year is almost 60% (exactly 57.7%) higher than an early stage entrepreneur whose technology is older than five years.

The likelihood of having few or none competitors is almost 70% (exactly 65.7%) smaller for an early stage entrepreneur who has a product that is not new to all or some customers than an early stage entrepreneur with such a product.

The likelihood of having few or none competitors is almost 50% (exactly 47.9%) higher for an early stage entrepreneur who exports between 25% and 75% than an early stage entrepreneur with none exporting.

The likelihood of having few or none competitors is almost 30% (exactly 26.6.%) smaller for an early stage entrepreneur who does not expect to employ more than five employees in next five years than an early stage entrepreneur who has such expectations.

Regarding the odds ratios of countries, we can see in Table 2, that the likelihood of having few or none competitors for an early stage entrepreneur is almost 3-times bigger in Croatia, Bosnia and Herzegovina and Slovenia than in Slovakia, whereas in Germany more than 2-times bigger compared to Slovakia and around 1.6-times bigger in Hungary and Czech Republic than in Slovakia.

In summary, by four predictors (technology age, product's newness, export intensity and firm growth aspirations) we can adequately explain the competitive intensity of early stage entrepreneurs from Danube region countries.

Table 2: Results of the binary logistic regression for the Danube region countries, 2013
(Number of competitors: Few or none competitors = 1)

	B	S.E.	Wald	df	Sig.	Exp(B)
Technology age (more than 5 years)			7,957	2	,019	
Newer than 1 year	,456	,162	7,914	1	,005	1,577
1 – 5 years	,075	,137	,297	1	,586	1,077
Product is new to all or some customers (No)	-1,069	,114	88,147	1	,000	,343
Export intensity (None)			6,165	3	,104	
More than 75%	,024	,213	,013	1	,911	1,024
25 to 75%	,391	,177	4,878	1	,027	1,479
Under 25%	,016	,131	,014	1	,905	1,016
Expects more than five employees in next 5 years (No)	-,309	,118	6,827	1	,009	,734
Slovakia			44,768	7	,000	
Hungary	,472	,240	3,868	1	,049	1,603
Romania	,257	,239	1,150	1	,284	1,293
Germany	,826	,224	13,604	1	,000	2,283
Croatia	1,238	,251	24,264	1	,000	3,448
Slovenia	1,030	,263	15,341	1	,000	2,802
Bosnia and Herzegovina	1,076	,237	20,641	1	,000	2,933
Czech Republic	,452	,206	4,826	1	,028	1,572
Gender (Male)	,083	,114	,524	1	,469	1,086
Age (55-64)			2,535	4	,638	
Age (18-24)	-,218	,240	,823	1	,364	,804
Age (25-34)	-,163	,208	,619	1	,431	,849
Age (35-44)	-,035	,213	,026	1	,871	,966
Age (45-54)	,016	,221	,005	1	,942	1,016
Educational level (Graduate expanded)			5,782	3	,123	
None and some secondary	-,232	,233	,990	1	,320	,793
Secondary	-,254	,194	1,713	1	,191	,776
Post secondary	,040	,211	,035	1	,852	1,040
Knowledge, skills and experiences (No)	-,096	,150	,413	1	,520	,908
Constant	,001	,331	,000	1	,998	1,001
-2Log Likelihood	2050,520					
Nagelkerke R Square	,143					
Model χ^2	183,388					
Model χ^2 significance	,000					
Overall predictive accuracy (%)	64,8					

Notes: N = 1700 (missing cases 129; total 1,829). The reference category of the criterion variable, which represents the number of competitors, in the estimation, is represented by the answer Many. Reference categories of the control variables are the following: gender (Female); knowledge, skills and experiences (Yes); product is new to all or some customers (Yes); expects more than 5 employees in next five years (Yes). In the model, there is no problem of

multicollinearity which is tested by correlation matrix. This matrix is not included in the paper but is accessible on request.

Discussion and conclusion

The Danube Region is characterized by broad differences in a range of socioeconomic indicators, such as economic development and income levels, labour market situation, foreign trade openness and specialization. Economic and income gaps have even widened during the recent crisis, and the labour market situation deteriorated (ZEW, IAW, wiiw, 2014). All these characteristics of the Danube Region countries pose a number of challenges to the formulation of a coherent regional development strategy, as many opportunities which may be exploited for fostering regional development and competitiveness exist. The current paper has identified features related to the Danube Region as well as selected countries' competition and early stage entrepreneurs' strategies.

The empirical results confirm our three hypotheses. H1 hypothesis presupposes that more innovative early stage entrepreneurs face lower competition. We confirmed hypothesis H1 by the technology age and product newness predictors. Results confirm: first, that if an early stage entrepreneur is using technology that is newer than one year; competitive intensity is much smaller in comparison to early stage entrepreneurs that are using the technology of more than five years old. Second, if an early stage entrepreneur has a product that is new to all or some customers; competitive intensity is smaller in comparison to early stage entrepreneurs that have not such a product. The findings show that early stage entrepreneurs who innovate by means of introducing new products or services and in particular by using new technologies are overrepresented in markets with limited competition (blue oceans). The finding concurs with van der Zwan et al.'s (2012) study in the Netherlands; these authors claimed that blue ocean strategies are more viable than red ocean strategies for innovative entrepreneurs, possibly because their innovations tend to be hard to copy.

Furthermore, the intensity of internationalization, measured by the share of customers living outside the country, was investigated. We confirmed our H2 research hypothesis, assuming that strong internationally oriented early stage entrepreneurs more often enter new niche markets while weak internationally oriented early stage entrepreneurs more often enter highly competitive markets. This hypothesis is confirmed as results indicated that early stage entrepreneurs whose exports amount from 25 to 75% face smaller number of competitors, compared to early stage entrepreneurs that have no exporting. Finally, early stage entrepreneurs who aspire to create five or more jobs in the next five years are also overrepresented in markets with limited competition, suggesting that the majority of these growth-aspiring entrepreneurs expect to realize their growth ambitions in untapped markets or blue oceans. Thus, our last (H3) research hypothesis is also confirmed.

References

1. Baumol, W.J. (1990). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*. 98, pp. 893-921
2. Bosma, N.S., Schutjens, V.A.J.M. (2007). Outlook on Europe: Patterns of promising entrepreneurial activity in European regions. *Tijdschrift voor Economische en Sociale Geografie*. 98(5), pp. 675-686
3. Bosma, N.S., Schutjens, V.A.J.M. (2011). Understanding regional variation in entrepreneurial activity and entrepreneurial attitude in Europe. *The Annals of Regional Science*. 47(3), pp. 711-742
4. Bosma, N., Wennekers, S., Amorós, J.E. (2012). *Global Entrepreneurship Monitor, 2011 Extended Report: Entrepreneurial Employees across the Globe*. Babson Park, MA, US: Babson College, Santiago, Chile: Universidad del Desarollo, Kuala Lumpur, Malaysia: Universiti Tun Abdul Razak, London, UK: Global Entrepreneurship Research Association
5. Burke, A.E., van Stel A.J., Thurik A.R. (2008). Blue Ocean versus Competitive Strategy: Theory and evidence. *EIM Research Report H200801*. Zoetermeer: EIM
6. Davidsson, P. (1991). Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of Business Venturing*. 6, pp. 405-429
7. Gundry, L.K., Welsch, H.P. (2001). The ambitious entrepreneur: High growth strategies of women-owned businesses. *Journal of Business Venturing*. 16(5), pp. 453-470
8. Kelley, D., Bosma, N., Amoros, J.E. (2011). *Global Entrepreneurship Monitor, 2010, Global Report*. MA: Babson College, Universidad del Desarrollo, London Business School, and GERA
9. Kim, W., Mauborgne, R. (2005). *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant*. Boston, MA: Harvard Business School Press
10. Kirzner, I.M. (1973). *Competition and Entrepreneurship*. Chicago, IL: Chicago University Press
11. Koellinger, P. (2008). Why are some entrepreneurs more innovative than others? *Small Business Economics*. 31(1), pp. 21-37
12. Markman, G.D., Gartner, W.B. (2002). Is extraordinary growth profitable? A study of inc. 500 high-growth companies. *Entrepreneurship Theory and Practice*. 27(1), pp. 65-75
13. Močnik, D., Širec, K. (2010). The determinants of Internet use controlling for income level: Cross-country empirical evidence. *Information Economics and Policy*. 22(3), pp. 243-256
14. Obeng, B.A., Robson, P., Haugh, H. (2014). Strategic entrepreneurship and small firm growth in Ghana. *International Small Business Journal*. 32(5), pp. 501-524
15. Pete, S., Nagy, A., Matis, D., Gyorfy, L.Z., Benyovszki, A., Petru, T.P. (2011). Early-Stage Entrepreneurial Aspirations in Efficiency-Driven Economies. *Romanian Journal of Economic Forecasting*. 2, pp. 5-18
16. Porter, M. J., Sachs, J., McArthur, J. (2002). Executive Summary: Competitiveness and Stages of Economic Development. In Porter, M.J., Sachs, P.K., Cornelius, J.W., Mc Arthur, J., Schwab, K. (eds.), *The Global Competitiveness Report 2001–2002*, New York: Oxford University Press, pp. 16-25
17. Porter, M.E. (1985). *Competitive Advantage*. New York: The Free Press
18. Porter, M.E. (1980). *Competitive Strategy*. New York: The Free Press
19. Schultz, T.W. (1975). The value of the ability to deal with disequilibria. *Journal of Economic Literature*. 13(3), pp. 827-846
20. Schumpeter, J.A. (1934). *The Theory of Economic Development*. MA: Harvard University Press

21. van der Zwan, P., Hessels, J., van Stel, A., Wennekers, S. (2012). *Global Entrepreneurship Monitor: The Netherlands 2012, National Report*. Research Reports H201314, Zoetermeer: Panteia
22. Wennekers, A.R.M., Thurik, A.R. (1999). Linking entrepreneurship and economic growth. *Small Business Economics*. 13, pp. 27-55
23. Westhead, P., Wright, M., Ucbasaran, D. (2001). The internationalization of new and small firms: A resource-based view. *Journal of Business Venturing*. 16, pp. 333-358
24. ZEW, IAW, wiiw, (2014a). *Socio-Economic Assessment of the Danube Region: State of the Region, Challenges and Strategy Development, Final Report Part I.* Centre for European Economic Research GmbH (ZEW) Mannheim, Institute for Applied Economic Research (IAW) Tübingen, The Vienna Institute for International Economic Studies (wiiw)

INSTITUTIONAL FINANCIAL SUPPORT TO ENTERPRISES AS A FACTOR OF ECONOMIC GROWTH AND DEVELOPMENT

Snjezana Vujnic

Abstract

The institutional financial support to enterprises represents a key pre-requisite for dynamization of the overall economic growth and development. It is subject to continuous adjustment and compliance with the economy requirements and current global economic trends. The main goal of this paper is to objectively consider and review the results achieved so far and effects of the institutional financial support on the economic activity in the Republic of Srpska with special focus on the contribution of the Republic of Srpska Investment-Development Bank (IRBRS), so as to identify required measures for advancement and development of this type of support.

For the needs of the research paper, the author has collected, processed and synthetized relevant data from credible domestic (Republic of Srpska) and foreign (European Union) sources on the systems of institutional financial support to enterprises. Subsequently, the macroeconomic, statistical, quantitative and comparative analysis was performed with tabular overview of statistical data.

The results of the analysis of the system of institutional financial support to enterprises in the European Union and its member countries in the region (Slovenia and Croatia), show that the complementarity, high level of diversification, specific target orientation and stress on the specialization of the agent of institutional support have a crucial impact on the system efficiency. The system of institutional financial support to enterprises was additionally diversified by founding the Republic of Srpska Investment-Development Bank and the Republic of Srpska Guarantee Fund. This research paper came to a conclusion that concrete and comprehensive measures should be taken for further advancement and enhancement of efficiency of the system of institutional financial support to enterprises in the Republic of Srpska.

Key words: *financial support, enterprises, economic growth, development, system, development banks*

1. The concept and significance of financial support

Economic growth and development of a country have always been determined by the role of the state as the main regulator of the economic activity and creator of competitive entrepreneurial and investment environment. Current trends of globalization, transition and variable cyclical trends in the world have a direct impact on the private sector results which puts creators of the state economic policy to the challenge of establishment and maintenance of flexible and efficient *system of institutional financial support* to enterprises and entrepreneurship.

The system of institutional financial support is defined as a group of institutional solutions created by the state and aimed at providing active financial support to enterprises. The institutional financial support implies Government action that modifies the potential profit of enterprises in short-term, mid-term and long-term period, in accordance with adjustments and compliance with the economic needs and global economic trends (Schrank and Keithly, 1999, page163). The system of institutional financial support stimulates economic growth and development of the country (Bacchetta and Associates, 2006, page 55).

A widely differentiated system of institutional financial support became a requirement for all countries in the world, both developed and developing, in order to meet specific goals and priorities such as promotion and dynamization of industrial growth and development, support to projects in the area of research and development and addressing the environmental issues. Besides, it is subject to continuous adjustment to the current needs of economy and global economic trends.

The system of institutional financial support primarily includes financial support provided by the government through relevant ministries (finance, industry, agriculture etc.). The dominant role in the system of institutional financial support to enterprises belongs to national development banks. Their primary function is long-term financing of the projects which are conducive to economic growth, respecting the needs of social development and regional integrations. In this system, the important role belongs to other economic players, such as export credit agencies, guarantee funds and direct support of local communities.

In accordance with international regulations, the instruments of institutional financial support are commonly referred to as subsidies. The definition of subsidies under the *WTO Agreement on Subsidies and Countervailing Measures* (1994a, Article 1) represents a generally accepted definition of the term subsidy applied by all WTO members.[296] In line with the Agreement, the subsidy is considered as a financial contribution by a government or any public body which includes direct transfer of funds (e.g. grants, loans, shares) potential direct transfer of funds and liabilities (e.g. loan guarantees) and government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits), provision of goods and services by a government other than general infrastructure and cases when a government makes payments to a funding mechanism or directs a private body to carry out one or more such functions which are not in accordance with a government's common practices (e.g. loans, guarantees). Also, subsidies comprise the impact on income and prices related to export, as defined by the *General Agreement on Tariffs and Trade* (World Trade Organisation, 1994b, Article 16).

The operationalization of the institutional financial support, i.e. its forwarding to final beneficiaries is conducted through the following instruments: grants and other direct payments, tax relief, loans, loan guarantees, securing financial market liquidity and investments in equity shares. When talking about goals of the institutional financial support, they can be divided into three categories, namely: (1) *promotional goals* which include filling of market asymmetries and gaps left

[296] BiH has observer status in the World Trade Organization, but given that BiH is in the process of joining this organization, this definition is applicable to our economic area.

by private financial institutions, (2) *general interest goals* which refer to investments in socially valuable but financially non-profitable ventures for which private sector is not interested in terms of profit (3) *geographically focussed goals* which include development of geographic areas (e.g. through regional and local banks) in order to mitigate the negative effects of lagging behind in economic and social development of certain regions (Schmit, M., Gheeraert, L., Denuit, T. and Warny, 2011, pages 33-46).

2. Institutional financial support in the European Union (examples of Croatia and Slovenia)

Given that the European integration process represent a long-term, geo-strategic commitment of Bosnia and Herzegovina and the Republic of Srpska, this paper analyzes systems of institutional financial support at the level of the European Union, as well as Slovenia and Croatia which are full members of the EU. The examples of Croatia and Slovenia and their experiences are especially important because of similar problems and development specificities which they share with domestic economy. This provides for examination and review of future directions of development of the institutional financial support system in the Republic of Srpska, which will be inevitably determined by the very dynamics of accession to the EU.

In order to encourage growth and development at the EU level, but also harmonized development from the aspect of its members, the European Union, through numerous, goal-oriented and elaborated programmes, provides a comprehensive financial support to economic entities, which can be *direct* (grants) and *indirect*. The thus created system of financial support needs to answer challenges to meet priorities of the Europe 2020 Strategy – smart, sustainable and inclusive growth (European Commission, 2010, page 10).

While direct financial support of the EU is based on thematic financing of concrete goals such as research, education, environmental protection and implemented in the form of grants (usually 50% of project costs), indirect support is provided via financial intermediaries through the following instruments:

- Structural funds,
- European Investment Fund (EIF),
- European Investment Bank loans and
- Micro-finance enhancement.

The most important financing available to the EU countries originate exactly from the structural funds. The goal of these funds is to reduce the gap between the developed and less developed parts of the EU, as well as promote economic, social and territorial cohesion. The funds that are available within structural funds are the *European Regional Development Fund* and the *European Social Fund.*

The European Regional Development Fund is an instrument of the European Union for implementation of regional policy. The funds are directed towards three priority areas: 1) *Convergence*, 2) *Regional competitiveness and employment* and 3) *European territorial cooperation.* They are available for investments in enterprises, especially small and medium enterprises, infrastructure financing as well as support to regional and local development. *The European Social Fund* is the main instrument for implementation of the strategic policy in the area of employment.

The European Investment Fund (EIF) is founded with the aim to provide support to small and medium enterprises and since 2000 it has been a part of the *European Investment Bank Group*. The Fund's activities are directed at securing risk capital and issuing guarantees, which creates

conditions for creation and development of fast growing and innovative small and medium enterprises. Also, the largest part of the *EU programme for competitiveness of small and medium enterprises* (KOSME) is implemented via EIF.

The primary activity of the *European Investment Bank* (EIB) is granting loans for projects which contribute to achievement of sustainable growth and employment and support the EU development and integration. The support to fulfilment of promoted goals is implemented through the following instruments: (1) *project loans* – intended for individual projects whose total investment costs exceed EUR 25 million; (2) *intermediary loans* – intended for support to small and medium enterprises and approved indirectly through „local" financial intermediaries; (3) *structural financing* – EIB approves additional support for priority projects which use instruments of risk higher than the one Bank usually accepts and (4) *guarantees.*

As EU members, Slovenia and Croatia have a developed and widely diversified system of institutional financial support which, besides state funds, includes and administers support provided from joint EU funds. Concurrently, financial support is adjusted to specific needs of economy and global economic trends.

In the Republic of Slovenia, the *Ministry of Economic Development and Technology* is the most important coordinator of the financial support to enterprises, directed at strengthening of the national economy and its international position. Through its programmes of financing, the Ministry pays considerable attention to enhancement of entrepreneurship and entrepreneurial environment, introduction of new knowledge into business, research, development and application of innovations, as well as promotion of the SME sector. One of the most important types of financing is state aid in the form of grants from the state budget which are approved to enterprises for elimination of the established structural imbalance and it represents an urgent assistance for implementation of a set of long-term development economic goals.

The Slovene Enterprise Fund was founded with the aim to provide access to financial resources for different development-business investments of micro, small and medium enterprises including funds for start-up and micro financing. Every year the Fund offers adequate financial solutions (programmes) for entrepreneurial sector projects which are based on revolving funds (loans, guarantees, interest rate subsidies, risk capital).

Public Agency of the Republic of Slovenia for Entrepreneurship and Foreign Investments (JAPTI) provides technical and financial support to key economic areas, namely: entrepreneurship, innovations, technical development, investments[297] and tourism. The financial support is implemented through grant schemes (co-financing) and approving of initiatives for attracting foreign investments.

In the field of financial support to export enterprises, the leading role belongs to the *Slovene Export and Development Bank* (SID). SID is an export and development bank whose goal is to finance permanent and harmonized development of the Republic of Slovenia, primarily through export stimulation. The Bank operates as an export-credit bank and it is authorized Slovene agency for export crediting. Besides, it provides insurance against non-market risks. Furthermore, it is in charge of implementation of the Interest Rate Equalization Programme (IREP) in the name and for the account of the Republic of Slovenia.

[297] JAPTI is an implementing agency for allocation of financial incentives for foreign direct investments and target beneficiary group includes potential and existing foreign investors.

The key institutions of the system of institutional financial support of the Republic of Croatia are the *Croatian Bank for Reconstruction and Development* (HBOR), Croatian *Agency for SMEs, Innovations and Investments* (HAMAG-BIKRO), the *Government* and its agencies.

HBOR is a development and export bank established with the aim to encourage reconstruction and development of the Croatian economy. The bank implements its activities through crediting, export insurance, issuing of guarantees and letters of credit and business consulting. Therefore, HBOR activities include: approval of loans and other placements, issuing guarantees and letters of credit, insurance and re-insurance activities, investments in securities and other financial activities and services.

HAMAG-BIKRO is a development agency which has a task to provide support to founding and development of entrepreneurship with its programmes. Also, it provides support for research, development and innovations. HAMAG-BIKRO creates favourable entrepreneurial environment and provides support to entrepreneurial development through issuing guarantees and approving non-returnable funds. The support is intended for existing and newly established small and medium enterprises (companies, artisans and agricultural family farms).

In order to improve competitiveness and achieve uniform regional entrepreneurship development, the *Ministry of Entrepreneurship and Crafts* implements many incentive measures, as well as special Government programmes in the area of economic development and competitiveness of entrepreneurship, cooperatives and small and medium enterprises. In 2011, the Republic of Croatia's Government established funds for business cooperation which represent risk capital open investment funds with private offering. Their business activity is supervised by the *Croatian Agency for Supervision of Financial Services (HANFA).*

3. Institutional financial support in the Republic of Srpska

The system of institutional financial support to enterprises in the Republic of Srpska has developed gradually at Republican and local level in line with the development and strengthening of the Republic of Srpska and its institutions. *The Republic of Srpska Government* through its ministries provides financial support to business entities through subsidies and grants. *The RS Ministry of Agriculture* allocates financial subsidies for agricultural and rural development, the *RS Ministry of Industry, Energy and Mining* provides subsidies to stimulate export-oriented economic entities, the *RS Ministry of Science and Technology* continuously issues public calls for allocation of funds as support to innovativeness in the Republic of Srpska, while the *RS Ministry of Finance* provided incentives to support investments and employment in 2012 and 2013. *Municipalities* also actively participate in the provision of support to domestic economic growth and development, which mostly depends on their annual budgets. The agricultural incentives are still dominant, but an increasing number of municipalities/cities provide different types of support to employment and self-employment, and incentives for tourism development, assistance to enterprises in difficulty as well as subsidies for small and medium enterprises (Republic of Srpska Government, June 2014).

The institutional support to enterprises in the Republic of Srpska has been diversified and to a large extent completed by founding of the *Republic of Srpska Investment Development Bank and the RS Guarantee Fund.* In the forthcoming period, as Bosnia and Herzegovina becomes more integrated in the European Union, types and amounts of financial support to domestic economy will be determined by obligations from relevant international contracts.

By performing the analysis of the budget spending per budget beneficiary in the Republic of Srpska, it can be concluded that one of the main characteristics of the *RS Government's* the financial support to economic development (grants and subsidies) is a continuous allocation of

funds for stimulation of domestic agricultural production. Thus the funds intended for this purpose were increased from BAM 22.9 million in 2003 to 60 million in 2013 and 2014. As far as the support to enterprises is concerned, at the beginning the funds were allocated only for co-financing of public enterprises, while subsequently this type of assistance was gradually diversified. The initial capital was provided for founding of the institutions specialized for support to domestic economy so the funds were channelled via such institutions to final beneficiaries. In this way, the financial assistance shifted from direct provision from the budget to special institutions. Thus, on the top of domestic sources, the support funds can be multiplied through participation in international arrangements.

In the period 2009-2014, in the name of subsidies, the funds were disbursed on different grounds totally amounting to BAM 739 million:[298]

Table 1: Relative share of disbursed subsidies in gross value added in RS, by year

	2009	2010	2011	2012	2013	2014
Gross value added in RS, in 000 BAM	6,888,593.0	6,872,931.0	7,132,366.0	6,998,183.0	7,239,409.0	7,242,827.0
Disbursed subsidies, in 000BAM	159,532.8	162,438.4	127,091.6	79,457.4	112,810.5	97,948.2
Subsidy share in gross value added, in %	2.3	2.4	1.8	1.1	1.6	1.4

Source: RS Institute of Statistics and RS Government

The share of disbursed subsidies in gross value added of the Republic of Srpska ranged from 2.4% in 2012 to 1.4% in 2014. However, what needs to be stressed here is the difference between the planned, budget-envisaged and disbursed, i.e. effectively implemented subsidies to final beneficiaries. This essentially means that one part of subsidies, the disbursement of which was planned for the previous year, was implemented in the current year and that a part of subsidies planned for the current year was disbursed to final beneficiaries only in the following year. A decreasing trend in disbursed subsidies has been observed since 2011 as compared to the previous period, which is connected with the influence of global economic crisis on domestic real and financial trends and indirectly on public finance, i.e. ability of the Republic of Srpska to fulfil planned commitments.

The Republic of Srpska Guarantee Fund was founded by the RS Government with the aim to achieve general interest which refers to providing support to development of entrepreneurship through facilitation of access to finance needed for conducting business activities of entrepreneurs (legal and physical persons) with the seat, i.e. residence in the Republic of Srpska.[299] As of 30 June 2015, 87 guarantees have been issued with total value of BAM 21.9 million.

In 2006, *the RS Government* provided founding capital for establishment and starting activities of the ***Republic of Srpska Investment-Development Bank***[300] which, over time, has been recognized as the main financier of domestic economy and thus represents the main instrument of the Government for implementation of measures and goals defined by the economic policy. Since its establishment, the Bank has been providing a continuous support to economic growth and development of the Republic of Srpska, maintenance and increase in the level of employment, development of the capital market, implementation of infrastructure projects and housing of social

[298] Data on disbursed subsides by sector are not available.
[299] The RS Guarantee Fund was founded in June 2010, pursuant to the *Law on the Republic of Srpska Guarantee Fund*, RS Official Gazette, Number: 50/10.
[300] Law on the Republic of Srpska Investment-Development Bank, RS Official Gazette, Number: 56/06 and 28/13.

groups of special interest and importance for the Republic of Srpska. Besides, it conducts activities of privatization of state-owned capital in cooperation with other relevant institutions of the Republic of Srpska.[301] The Investment-Development Bank provides financial support to the Republic of Srpska economy through loans and investments in securities on the capital market.

As of 30 June 2015, the Republic of Srpska Investment-Development Bank invested BAM 1,644.9 million, of which BAM 1,295.4 million or 78.8% through credit lines and loans, and BAM 349.5 million or 21.2% through investments in securities of issuers from the Republic of Srpska area. It should be mentioned that before founding of the Bank, projects worth BAM 177.5 million had been implemented through the Employment and Development Fund and Housing Fund of the Republic of Srpska.[302]

Until the end of first half of 2015, the highest amount of funds were approved through *credit line for entrepreneurs and enterprises*, BAM 515.2 million or 39.8%, followed by *housing loans* with BAM 304.4 million or 23.5%, and *loans to small and medium enterprises (EIB)* with BAM 97.8 million or 7.5% of totally disbursed loans . In the same period, the lowest interest was shown for the *credit line for start-up business* through which BAM 3.6 million was disbursed, which is 0.3% and *loans for demobilized soldiers*, amounting to BAM 6.1 million or 0.5%. Owing to maintenance of the continuity of lending but also overall investment activities, especially in conditions of limited availability of finance and the problem of increased non-liquidity of the economy and population sector, the Investment-Development Bank has successfully justified its role of the most important financier of domestic economy. Thus, according to data of the *RS Banking Agency* (RS Banking Agency, 2015, page 14), as of 30 June 2015, in the structure of RS banks' loan sources of finance,[303] loans from domestic sources which are fully financed by the Investment-Development Bank participated with 77.2%.[304]

Since the establishment of the Republic of Srpska Investment-Development Bank, the share of approved loans to corporate sector[305] in total corporate loans of the RS banking sector is characterized by a continuous growth which was especially visible in 2009 and 2010. Namely, owing to the concept of counter-cyclical activity, the Bank has provided a great contribution to mitigation of negative effects of the global economic crisis on domestic social and economic trends, which enabled maintenance of participation of production activities in the structure of gross domestic product at approximately the same level as in the pre-crisis period (RS Institute of Statistics, annual releases).[306] As of 30 June 2015, the Investment-Development Bank's loans to domestic corporate sector constituted over 1/5 of the total loan support to the banking sector. This share, by year, is shown in the table below:

Table 2: Investment-Development Bank Loans to corporate sector as compared to total corporate loans of the banking sector

[301] On 20 June 2007, the Bank took over the role of authorized seller of the state-owned capital in enterprises in the Republic of Srpska from the former *Directorate for Privatization*.

[302] IRBRS manages 6 funds of the Republic of Srpska: RS Development and Employment Fund, RS Housing Fund, Eastern RS Development Fund, RS Share Fund, RS Restitution Fund and RS Real Estate and Claims Fund.

[303] Loans are an item in the liability structure of the RS banking sector (11% share as of 30 June 2015). Other liability items are: deposits (72%), borrowings (0%), subordinated debts (1%), other liabilities (2%), value adjustments and reserves required for potential loss (1%) and capital (13%).

[304] Out of the total number of loans taken by the RS banks, 77.2% belongs to loans originating from domestic sources (IRBRS), 21.3% loans from foreign banks and 1.5% loans from other sources.

[305] For assessment of the impact that the total IRBRS loans have on the RS economy structure, the data used relate to loans through credit lines for *start-up business activities, micro-business in agriculture, agriculture, entrepreneurs and enterprises, loans to SMEs (EAF and EIB loans).* With reference to other credit lines of the Bank, it is not possible, due to indirect involvement of several sectors, to exactly determine the final effect on individual sectors of economy.

[306] The share of production sectors (A, B, C, D, E and F) in RS GDP amounted to 32.9% in 2008, 33.3% in 2009, 31.3% in 2010, 30.6% in 2011, 29.2% in 2012, 31.4% in 2013 and 30.9% in 2014, retrospectively.

	31.12.2008.	31.12.2009.	31.12.2010	31.12.2011.	31.12.2012.	31.12.2013.	31.12.2014.	30.06.2015.
	Outstanding balance (principal)	Outstanding balance (principal)	Outstanding balance (principal)	Outstanding balance (principal)	Outstanding balance (principal)	Outstanding balance (principal)	Outstanding balance (principal)	Outstanding balance (principal)
RS banking sector, in 000 BAM	2,117,188.00	2,142,366.00	2,337,674.00	2,404,274.00	2,542,791.00	2,645,850.0	2.326.960,0	2.406,372.0
Of which IRBRS, in 000 KM	128,033.79	282,235.08	371,577.46	393,012.47	543,786.30	569,795.6	560.739,4	543,154.1
Of which IRBRS share, %	6.0	13.2	15.9	16.3	21,4	21.5	24.1	22.6

Source: RS Banking Agency and RS Investment-Development Bank

The IRBRS loans enabled retention of 54,281existing jobs and opening of 5,167 new jobs until the end of the first half of 2015. Besides, 336 beneficiaries of loans to demobilized soldiers undertook the obligation to perform self-employment. The best evidence of the Bank's positive contribution in maintaining the level of domestic employment is the fact that 1/5 of the total number of the employed in the Republic of Srpska constitute the retained and newly opened jobs.[307]

Since its founding, the Bank has disbursed most of its funds in the *manufacturing sector* (BAM 433.6 million) and *agriculture* (BAM 167.5 million). In this way, the support has been provided to sectors which generate about 1/5 of the RS gross domestic product. The support to domestic manufacturing capacities contributes to enhancement of economic competitiveness (support to a higher level of the domestic production finalization), while support to agricultural production, besides employment, has a positive impact on the development of domestic raw material basis as input material for manufacturing capacities in the Republic of Srpska.

Through investments in securities, domestic economy has been supported with additional BAM 113.9 million which constitutes almost 1/3 of the total invested funds through domestic capital market. The Bank supported the implementation of the first initial public offering (IPO) in the Republic of Srpska and Bosnia and Herzegovina. In this way, a strong contribution was ensured for advancement and further development of the domestic financial market in the sense of development of its primary function, i.e. connecting supply and demand for capital.

4. Conclusion

The institutional financial support to enterprises is one of the basic elements of public strategies and policies which are directed at strengthening of entrepreneurship and competitiveness, as well as increase in the level of employment, growth and total well-being. The state intervention in the enhancement of availability and diversification of financial support is needed especially in those areas and sectors where market mechanisms are not able to act or in which private financial sector is not interested.

This paper has shown that experience and practice of the European Union and countries that went through the process of accession and compliance of their legislation and economic system with the acquis communautaire are the best example how important the institutional financial framework is for support to enterprises, in order to develop a dynamic and flexible economic system, ready to meet the challenges of global economic trends. The analysed systems of institutional financial support at the level of the European Union, namely Slovenia and Croatia, are characterized by high level of diversification and mutual coherence of its individual components, which is not the case with the system of institutional support in the Republic of Srpska. Indeed, it is the complementarity, specific target orientation and increased specialization of the agent of institutional support that provide efficient functioning of the entire system in the best interest of economy and its needs.

[307] The employment figures are published twice per year. As of 31 March 2015, there were 243,166 employed persons in total in the Republic of Srpska (RS Institute of Statistics, March 2015).

The research on the topic of this paper resulted in a conclusion that the Republic of Srpska, in accordance with its strengthening and development needs, had an evolutionary path in the creation of the system of institutional financial support to enterprises, from the „centrally-oriented", where the Government, via its competent ministries, was the main provider of this type of support, to the one marked by higher (but still insufficient) level of diversification, which is characterized by founding and operation of the Republic of Srpska's Investment-Development Bank and Guarantee Fund.

This paper has also indicated that the national development banks are one of the essential elements of the system of the institutional financial support to enterprises and key instrument of governments for achievement of main goals and priorities of economic policies. Their role and importance will be extremely important in the forthcoming period, where they are supposed to provide their full contribution in the support to domestic economies for overcoming economic uncertainties and crisis. It can be concluded from the research results that the Investment-Development Bank, especially in conditions of the escalation of global economic crisis and limited availability of the sources of finance, has contributed to maintenance of liquidity and stability of the domestic economy. The analysis of the Bank's work so far shows full justification of the functioning of this institution as the leading financier of the Republic of Srpska's development.

However, for enhancement of efficiency of the system of institutional financial support in the Republic of Srpska and its further advancement and adjustment to specific requirements of economy, it is necessary to take concrete and comprehensive measures which would include:

1. Increase in the level of diversification and specialization of individual types of institutional financial support from the aspect of needs and preferences of potential final beneficiaries. This measure includes clear division of competencies between the agents of institutional support.
2. Increase in the level of coordination and compliance between the instruments of institutional financial support and other (non-financial) types of support which should enable maximization of the effects of the overall support system on the achievement of the national economy growth and development goals.
3. The creation of pre-requisites for increase in the access to finance through European pre-accession funds for economic entities from the Republic of Srpska. Implementation of this measure primarily includes strengthening and enabling the domestic institutional capacities, but also meeting concrete political requirements along the path of European integration of Bosnia and Herzegovina.
4. The compliance of the subsidy schemes and credit lines with the provisions of the *Law on the State Aid in Bosnia and Herzegovina*, so as to be defined and allocated in the framework of allowed state aid and to enable existence of competitive market conditions as well as execution of the undertaken obligations under the signed international agreements which contain provisions on the state aid.
5. Increase in the level of diversification of the credit programmes of the Republic of Srpska Investment Development Bank and their compliance with the specific needs of potential final beneficiaries. Besides, it is necessary to take measures on further strengthening of the Bank's portfolio, firstly through successful cooperation and implementation of the projects with international financial institutions.
6. The strengthening of the cooperation between the institutional system of support and the commercial banking sector in directions which provide their complementarity and full coordination in providing a comprehensive, target-oriented support to enterprises in the Republic of Srpska.

References

1. Agencija za bankarstvo RS, *Izvještaj o stanju u bankarskom sistemu RS za period 01.01.2015.-30.06.2015. godine*, 2015, str 14./ RS Banking Agency, *Report on Banking System of the Republic of Srpska for period 1 January 2015 to 30 June 2015*, 2015, page 14.
2. Vlada Republike Srpske, Ministarstvo finansija Republike Srpske, *Popis programa državne pomoći u Republici Srpskoj*, juni 2014/RS Government, Ministry of Finance, *List of State Aid Programmes in the Republic of Srpska*, June 2014
3. European Commission, *Communication from the Commission Europe 2020 – A strategy for smart, sustainable and inclusive growth*, Brussels, 3.3.2010, page 10.
4. *Zakon o Garantnom fondu Republike Srpske*, Službeni glasnik Republike Srpske, broj: 50/10/*Law on the Republic of Srpska Guarantee Fund*, Official Gazette of the Republic of Srpska, Number 50/10.
5. *Zakon o Investiciono-razvojnoj banci Republike Srpske*, Službeni glasnik Republike Srpske, broj: 56/06 i 28/13/*Law on the Republic of Srpska Investment-Development Bank*, Official Gazette of the Republic of Srpska No: 56/06 and 28/13.
6. Jara, A., Bacchetta, M., Bijit Bora, K., Finger, M., Jansen, M., Keck, A., Morgan, C., Piermartini, R., Teh, R.: *Exploring the links between subsidies, trade and the WTO*, World Trade Organization, 2006, str. 55
7. Republički zavod za statistiku, *Statistika nacionalnih računa*, godišnja saopštenja, 2008-2014./RS Institute of Statistics, *Statistics of National Accounts*, annual releases, 2008 -2014
8. Republički zavod za statistiku RS, *Statistika rada*, polugodišnje saopštenje, mart 2015/
9. RS Institute of Statistics, *Labour Statistics*, semi-annual release, March 2015
10. Schmit, M., Gheeraert, L., Denuit, T., Warny, C.: *Roles, Missions and Business Models of Public Financial Institutions in Europe*, SUERF – The European Money and Finance Forum, Wien, 2011, str. 33-46
11. Schrank, W.,E.**,** Keithly Jr., W., R.,: *Thalassorama - The Concept of Subsidies*, Marine Resources Foundation, 1999, str. 163
12. World Trade Organisation, *Uruguay Round Agreement: Agreement on Subsidies and Countervailing Measures*, 1994a, Article 1: Definition of a Subsidy
13. World Trade Organisation, *General Agreement on Tariffs and Trade 1994b*, Article 16.

ECONOMIC SOVEREIGNTY
CASE STUDY: THE REPUBLIKA SRPSKA

Aleksandar Savanović

Faculty of Political Sciences,University of Banja Luka

e-mail:alexandar.savanovic@gmail.com

Ognjen Tadić

The vice-president of the Serbian Democratic Party

Co-Chair and in the House of Peoples in the Parliamentary Assembly of Bosnia and Herzegovina

e-mail:tadić.ognjen1@gmail.com

Dragan Ćuzulan

State Public Administration Reform Coordinator

e-mail:cuzuland@yahoo.com

Abstract

In this paper we will analyze the concept of economic sovereignty within the specific case study of the Republika Srpska [RS]. Economic sovereignty we define as "ability to impose the rules of appropriation, exchange and use of resources." [Savanovic A., (2014):1023] This definition comes from the classical concept of sovereignty of the people, which has been developed by Kant, Locke and other thinkers of liberal tradition. Economic aspect of sovereignty is under threat in situation of globalization, by virtue of the fact that globalization means reduction of the state as a standard framework for Kant-Locke concept of sovereignty. Especially the so-called "small states" are under threat, because their power to protect their legal order has been reduced. Three major economic powers into the globalized world: supranational political formations, international financial and economic institutions, and huge international corporations, have possibility to force the sovereign states to create their legal rules and even the constitutional framework in direction of external requests. In this paper we will try to analyse this process within experience of the present situation in RS. The main focus of our presentation will be the connection between (ia) the state-debt and (ib) ownership of resources, and (ii) possibilities of foreign capital to have impact on the legal regulation into the sovereign state. Our working hypothesis is that RS is a typical example of reduction of sovereignty under the pressure of powerful external players.

***Keywords**: Economic sovereignty; the Republika Srpska.*

1. Theoretical framework

In this paper it will be analysed claim that the Republika Srpska [RS] lost a large part of its economic sovereignty during previous ten years[308] Reason for this is a standard problem: the state debt allows external factors to take resources (including primary resources) located within the territory of the state. For our paper critical point is one aspect of this process: foreign influence on the legislative process of the state. Namely, even if we accept doctrine of free allocation of resources, capital etc., the fact is: internal rules [legal framework] of competition for resources have often been modelled by wishes of the foreign players, not by the sovereign states. The parliament of the state, as a representative political body, has less power to create a law order of the state, as a system of rules under which the competition for the resources can be played. This is, of course, question about sovereignty into the processes of globalization: "Westphalian" sense of the state sovereignty refers "to the fact that [the state] is the *sole* arbitrator for arbitration within its borders." [Savanovic(1),2014:1007] The state becomes "sovereign" through "the social contract" – an act where citizens constitute the constitutional order and system of laws. This is the classical liberal [or Locke-Kant] concept of sovereignty and philosophical framework of so-called the "minimal state" or the "night watchman state". The meaning of the constitutional arrangements is that allow the appropriation and exchange of property and resources, without falling into violence and anarchy.[309]

But, obviously, content of the word "sovereignty" has been changed in contemporary world. Critical aspect for us is: three external powers [supranational entities, external institutions, such as the IMF, WB, WTO, and transnational corporations (TNC)] have legislative powers in certain aspects of social and economic life as well political decisions of sovereign states. [Savanovic,2014:1008] If we understood sovereignty as "economic" sovereignty, this means: citizens, "the people" of the state are not sovereign in Locke-Kant sense. [Savanovic,2014:1023-1024] All of these processes have bigger effects in the so-called "small countries". [Vlcek, 2008:1,10-16[310]; Jackson, 2008:17-18][311]

2. Basic facts

In this paper we will try to use a case study of RS as an illustration and proof for previously explained theoretical approach. As a critical problem we can see the state debt.[312] Of course, the key cause of growing debt is a trade deficit and spendings of the administration.[313] As a trade deficit ratio shows, this is a „bad" debt, because has not been used for economic development, investments and the macroeconomic stability, but for budget spendings.[314] As usually is, problem is not a debt,

[308] The structure of this hypothesis, and other arguments, has been developed for the paper for newspaper [see: Savanović(3), 2014]. Theoretical framework with review of the literature of the concept of economic sovereignty have been explained in: Savanović(1),2014.

[309] „The constitutive framework (guaranteed by the government) is in fact a system of rules under which resources may be legitimately appropriated, exchanged and consumed (used)." [Savanovic,2014:1008]

[310] By the criteria of population there is a four class of the small states: (i) less then 100 000; (ii) between 100 000 and 500 000; (iii) between 500 000 and 1 500 000; (iv) less then 5 000 000; [Vlcek, 2008:12-15].

[311] RS is typical example of the „small" country. Territory: 24 641 km2 [*Republički zavod za statistiku*,2015:7]; Population: 1 326 991 [*Republički zavod za statistiku*, 2014:21]; GDP: 8 823 628 (2014), 8 761 456 (2013). [*Republički zavod za statistiku*, 2014:7]

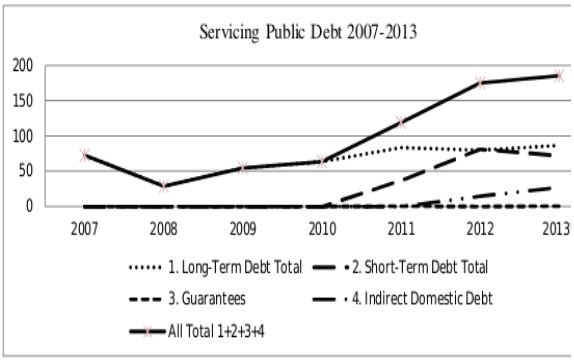
[312] Through the previous decade the state debt of RS constantly growth: 2005 debt was 1 045 billion BAM, 2014 debt was approximately 5.5 billion. On the request of the Assembly of RS, the government of RS has submitted the information that debt of RS is [31th December 2014] 5.055,24 bil BAM or 57.57% of GDP. [*http://narodnaskupstinars.net/?q=la/narodna-skupstina/poslanicka-pitanja-i-odgovori/narodni-poslanik-branislav-borenovi%C4%87-ministarstvu-finansija* (26 sept 2015)].

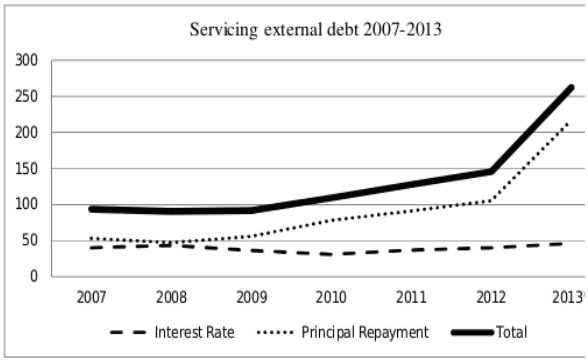
[313] GDP growth 2012/2013: 0.9% while at the same time budget spending grew at a rate of 9% (2013/2014 even 11%). Data on the share of debt in the budget by years are as follows: 2012: 19.54% ; 2013: 26.24% ; 2014. 26.17% of the budget. [Savanović,2014]

[314] External debt service in 2007-2013 (in million BAM) [Mandić,Vojvodić, 2014:149]:

but „bad“ nature of it. Because that, cannot be accepted standard argumentation which has been taken by the government of RS, namely, that RS is not on the high level of indebtedness [53% of GDP, still lower than EMU standard]. Problem is „structural“ in economic sense: huge unemployment, negative trade balance, low level of industrial production, as well in political area: corruption, bureaucracy etc.

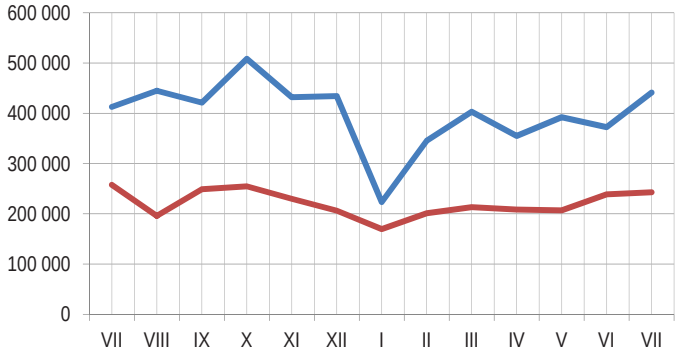
To cover inefficiency of economy the government undertakes standard solutions: loans and sales of resources of the country. When we consider datas for debt, situation is clear ascending curve[315]:





The debt has constantly been growing since 2008. But, in same time, unemployment still is on high level[316], as well the other indicators:

Export/import ratio (2014/2015) [*Republički zavod za statistiku*,2015:14][317]:



These facts show us that macroeconomic policy of the government is wrong on the typical way – the government takes money for public spending and to cover the budget spendings, without real long-term economic development.

DESCRIPTION	2007	2008	2009	2010	2011	2012	2013*
Interest	40.40	43.30	36.22	30.99	37.02	40.08	46.07
Principal repayment	53.10	47.20	55.70	78.41	90.98	105.51	216.12
Total	93.50	90.50	91.92	109.40	128.00	145.59	262.19

[315] Mandić,Vojvodić, 2014:150,151. For more details about the debt, it structure and especially situation of the state funds see: Savanović (3),2014.

[316] Number of employed is: 243 166 (march 2015); was 258634 (2009). In same time number of unemployed is 142573 (nov.2014). [*Republički zavod za statistiku*, 2015:17]. Unemployment rate: 21.4% (2009) 23.6% (2010) 24.5% (2011) 25.6% (2012) 25.5% (2013) 25.1% (2014). [source: Ministry of Finance of the Republic of Srpska (*http://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/mf/Pages/default.aspx*)].

[317] Especially interesting data comes from CEFTA arrangement: BH has trade deficit with all countries, excluding Albania. [See: CEFTA 2013:7]

Same clarity we can find in situation with resources. Two biggest example will be enough to illustrate economic politics of the government of RS. In december 2006 the government of RS sold *Telekom RS* [65% share for price: 646.000.000 €]. In 2007, russian company *NeftGazInKor* bought 80% share of *Rafinerija nafte Brod.* Also, the government undertakes wide practice of giving concession on the natural resources of RS. For example, in 2011 the government sold the right on the coal exploitation in huge source of *RITE Ugljevik*, to the *COMSAR Energy Ltd*, [ownership of russian businessman Rashid Serdarov].[318] These examples are just a small part of wide practice of selling of the basic resources of the country.[319] On the basis of these sales ESCROW fund has been created, with the initial amount (approximately) 1.5 billion BAM. Intention was that through IRB [Investment-Development Bank] these funds enable the entrepreneurship activity and new investment cycle. Situation of ESCROW (june 2013) is 12 million.[320] According *The Supreme Office for the Republica Srpska Public Sector Auditing*, the government did not spend fund in the original purposes, but for the budget spendings.

3. Consequences as a conclusion

There are standard consequences of economic inefficiency for political stability of the state. First at all, we can mark growing poverty and high level of unemployment as a sources of political problems. As it is easy predictable, both facts have huge political consequences for RS. One is political instability: threat of civil disobedience and riots. During „the Bosnian Spring“ 2014, that was obvious. Civil disobedience into the complex society, as BH is, always will be complicated for analyse. But, most of theorists agree that main cause of riot is high level of poverty of wide range of social groups. [see: Savanovic, 2014: 283-287] Although political elites are trying to show riots as an aspect of complex Dayton structure of BH, real source and key causes of demonstration are poverty, unemployment and other „economic“ facts. But in fragile political order, as BH is, these type of civil disobedience can be a start of tremendous political instability. External, as well as internal players, with or without their own interest in instability of BH, have possibility to blackmail political BH elites and reduce their political power, and eo ipso sovereignty of BH as a state – if we take „political elites“ as: elected representatives of the peoples of BH.[321] Similar problem is also a standard situation: possibility of external influences on the internal political decision. Only one example will be enough to show this: capacity of Russia into the RS political space – by threat of closing *Rafinerija nafte Brod* with 1-2 000 domestic workers. [Savanović (3),2014][322] Threats like these will have tremendous consequence for economic stability of RS, and obviously give capacity to force the government of RS in direction of some political decisions which not be undertaken without this threat. In debate about *the South Stream* from 2013-2014 it was obviously: RS was one of the focal points and tool of Russian interests. Within any public announcement plan about *the South Stream* RS was not territory through it crosses. Even more, RS practically has not a gas system! Nevertheless, the government of RS was using extremely aggressive rhetoric to defend Russian position in negotiation.[323] Our insinuation is: foreign politics of RS was under pressure, and some decisions obviously have been results of economic dependency.

[318] For details see: Savanovic, 2014.

[319] Recently we heard information about selling of so-called CO2 vouchers to the *European Green Projects*. [*www.sirs.org*].

[320] *http://www.capital.ba/na-escrow-racunu-od-15-milijardi-ostalo-12-miliona/* (12.9.2015)

[321] For example, SDP (major ruling party in Federation of BH) accuses mr. Radončić from SBB, that he and his party uses demonstrations to get some political benefits, exactly in sense which we take as crucial in our paper.

[322] Also, as the prime minister said, the government of RS tries to get the loan [supposedly amount is 700 million BAM] to cover budget.

[323] For example, the President of the RS has made the statement:“We will constantly block out all decisions in Sarajevo, until *the South Stream* not be accepted by the Council of Ministry of BH.“ That was an open and direct treat of blockade of the state. [*http://www.oslobodjenje.ba/vijesti/bih/dodik-ukoliko-se-blokira-projekt-juzni-tok-blokirat-ce-se-cijela-bih* (01.10.2015); *http://hms.ba/dodik-u-sarajevu-vise-nece-proci-ni-vremenska-prognoza-dok-se-ne-rijesi-juzni-tok/* (01.10.2015)].

Same situation we can see at current debate about the „labor law“ [Savanović(1),2014:1013], only difference is different external player. Such important and basic law, as a „labor law“ in any country is, has to be result of negotiation between most important domestic players – the unions, entrepreneurs and the government. Current situation in RS is: the unions[324] are against the new labor law, and they try to defend the existing law. As opposite side we have community of entrepreneurs which try to get new labor law. The government of RS is on the entrepreneurs' side [more or less transparent][325]. Reason for this is not a content of the law, but the fact that the government needs money from arrangement with IMF, and IMF has requested for the new labor law as a preconditions for loan. It is, of course, standard situation for most of so-called transition states. IMF do not stand on the „economic“ requests, but tries to create a specific shape of internal legal order into the country. [Chang,2007:15-16][326] There is no place for discussion about nature of globalization as a process of reduction of sovereignty of the national state. Or about question are these rules, imposed by IMF and other members of „unholy trinity“, good or bad. There is endless literature about these issues. Our point is: decision is not an act of sovereign will of the peoples of the country through their representatives. At the issue of the labor law dilemma is: the government can accept requests of IMF and will get a necessary loan. In this case, the government works against the will of big part of society – the unions. Probabily, such decision provoked strikes of workers and other kind of civil disobedience. But in other scenario: rejection of IMF proposal, - the government will have problem with servicing of the budget. Again, similar scenario of social turmoil is possible. Through the above-explained unaccountable economic macroeconomic policy the government put itself in position that has extremely narrow space for sovereign decision.

So, our general conclusion is that RS lost a big part of his economic sovereignty during previous decade. Political sovereignty is the ability of citizens to set up their own political framework (the Constitution) and choose the government for operational implementation during the so-called „post-constitutional“ life. Also, through the mechanism of periodic democratic elections, citizens choose a government policies also. This conceptual scheme is existing formally (de jure) after the loss of economic sovereignty, but in reality this is not the case. [Savanović(1),2014:1023-1024] Critical sense of this is that RS cannot create sovereign decision about rules and legal proposition under which natural and other resources of RS can be exploited. Our elected representatives have to create political decision and laws not according with requests of their voters, but according wishes of external powers. Destiny of the current government of Greece is clear picture of these facts. In BH it is dangerous situation because the state is in situation of constant political instability. Also, this is endangered political position of RS because economic sovereignty is huge (maybe biggest) part of „Dayton“ sovereignty of RS.[327]

References

1. *CEFTA trade statistic 2013 Half Year Update* [CEFTA,2013];
2. Chang Ha-Joo, *Bad Samaritan – The Myth of Free Trade an secret history of capitalism* [Bloomsbory Press 1997];
3. Jackson John, *Sovereignty: Outdated Concept or New Approaches* [in: Shan W., Simons P., Singh D. (ed), *Redefining Sovereignty in International Economic Law* (Hart Publishing, Oregon 2008), pp.3-25];
4. *Monthly statistical review* [*Republički zavod za statistiku*, Banja Luka, august 2015];

[324] Supported by almost all of the opposition political parties in RS.
[325] *http://www.nezavisne.com/novosti/bih/Dodik-Novi-zakon-o-radu-neophodan/320884*
[326] For a wider explanation in context of our paper see: Savanović(1),2014:1013.
[327] See for example: *The Constitution of BH*, article III,1(b).

5. Mandić Boško, Vojvodić Boro, *Sustainability of public debt in Republica Srpska* [*European Journal of Business and Social Sciences*, Vol.3,no.1., April 2014, pp 146-154];
6. *Popis stanovništva, domaćinstava i stanova u BiH 2013 – Preliminarni rezultati* [*Republički zavod za statistiku*, Banja Luka 2014];
7. Savanović A.(1), *Economic Sovereignty* [Proceeding book: *IISES 12th International Academic Conference*, Prague Czech Republic, 01-03. 09.2014., pg.1006-1025; ISBN 978-80-87927-04-5; ISSN 2336-5617] http://www.iises.net/
8. Savanović A.(2), *Civilni sektor i teorija suverenosti - Case Study: model "Plenuma" u BiH* [Zbornik radova: *Ustavi u vremenu krize – postjugoslovenska perspektiva*, Fakultet političkih nauka Beograd, Fond otvoreno društvo Srbija, Beograd 27-28.09.2014.; str. 283-296];
9. Savanović A.(3), *"Владавина СНСД и економски суверенитет Републике Српске"* [*http://www.nspm.rs/sudbina-dejtonske-bih-i-republika-srpska/vladavina-snsd-i-ekonomski-suverenitet-republike-srpske.html*, 15 august 2014];
10. Vlcek William, *Offshore Finance and Small States- Sovereignty, Size and Money* [Palgrave Macmillan, New York 2008]

MANAGERIAL PROFESSIONALIZATION AS A DETERMINANT OF SUCCESS OF AGRICULTURAL BUSINESS SYSTEMS IN REPUBLIC OF SRPSKA

PhD Zoran Lukic[328]

Jelica Rastoka[329]

Abstract

Agriculture is one of the sectors of strategic importance in economy of Republic of Srpska. In GDP production the sector of Agriculture contributes between 10% and 15%, and the only sector which contributes more is Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles. Yet, not all the potentials are used in their full capacities. On the contrary, most of the institutional forms of organization in agriculture of Republic of Srpska are not doing business with success. The reason for that could be found in different facts, but one which stands out is inadequacy of their top management bodies. Organizational structure in most of business systems in agriculture is quite boned and inflexible, managers are in most cases also the owners, they are lacking competences etc. Managerial professionalization is a phenomena which is used since XX century with the aim of increasing performances of institutional forms of organizing in economy. In empiric of Republic of Srpska is used up to one point in public companies, rarely in companies with capital in private ownership from Wholesale and Retail Trade sector, but almost not at all in agricultural business systems with capital in private ownership.The aim of this paper is to indicate the importance of managerial professionalization as well as the positive influences which are brought up by it. It is proven that managerial professionalization determines the performance of business systems in a way that it increases it. It is emphasized as follows how managerial professionalization in agricultural business systems could increase their performances what would lead to increase in competitiveness of agriculture in Republic of Srpska.

Key words: *managerial professionalization; managerial competences; agricultural business systems; business systems performances.*

[328] University of Banja Luka, Faculty of Economics, Majke Jugovica 4, 78000 Banja Luka, Bosnia and Herzegovina, assosiate professor, e-mail: zoran.lukic@efbl.org

[329] University of Banja Luka, Faculty of Economics, Majke Jugovica 4, 78000 Banja Luka, Bosnia and Herzegovina, student, e-mail: jelica.rastoka@gmail.com

1.Agriculture of Republic of Srpska: Current issues

1.1.Current problems in agriculture of Republic of Srpska

Agricultural sector in Republic of Srpska, as well as in Bosnia and Herzegovina is one of the most important economic sectors. Its importance lies in three general facts:

14. It is the second most contributional sector in production of GDP
15. It is the main source of employment between rural population
16. It has high potentials for production of different plant and animal species, which are mosty imported in European countries.

At present, the agricultural policy is led in Bosnia and Herzegovina on different levels: entity, cantons, municipalities. Despite, the incentives for agriculture are very poor, sporadic and uneven. The Global Competitiveness report of the World Economic Forum witnesses in favour of that, representing Bosnia and Herzegovina, regularly at the bottom of the ranking of countries by competitiveness of aricultural policy. Republic and Srpska and Federation of Bosnia and Herzegovina, yearly allocate 80 to 100 millions of Euros to agricultural sector, on different, the above mentioned levels. At the same time, Bosnia's neighbour, Croatia (before it's accession to the European Union) was yearly investing more than 500 millions of Euros, and at present, it invests even more.

One of the current issues in agriculture of Bosnia and Herzegovina (BA) is change of use of agricultural land to a housing projects, due to what is every year lost near three thousand hectares of farmland. Another problem, which is this country's agriculture faced to, is unfavourable ownership structure. In Republic of Srpska, less than 5% of total arable land is owned by business systems. Under those business systems are considered both companies with state-owned capital, as well as the private capital. More than 95% arable land of Republic of Srpska is owned by families.

1.2.The Stucture of arable land by use and owhership

Abbreviations are used as follows:
T – Total
BE –Business Entities
AFH – Agricultural Family Holdings
Land sawn consists out of following:

2. Cereals
3. Industrial crops
4. Vegetable
5. Fodder crops

Table 1 – Arable land by way of use and ownership structure, ha

	Arable land and gardens			Land sawn			Nurseries, flowers and decoration plants			Fallows and uncultivated arable field		
	T	BE	AFH	T	BE	AFH	T	BE	AFH	T	BE	AFH
2004	590.491	27.907	562.584	350.099	11.425	338.674	517	164	353	239.875	16.318	223.557
2005	593.036	27.944	565.092	345.530	12.673	332.857	484	122	362	247.022	15.149	231.873
2006	596.115	29.094	567.021	347.732	13.325	334.407	453	143	310	247.930	15.626	232.304
2007	595.708	28.103	567.605	351.586	14.917	336.669	345	151	194	243.777	13.035	230.742
2008	587.038	23.131	563.907	349.021	14.016	335.005	425	147	278	237.593	8.968	228.625
2009	584.406	19.663	564.743	323.362	11.618	311.744	456	166	290	260.588	7.879	252.709
2010	583.755	20.652	563.103	311.765	12.292	299.473	444	153	291	271.546	8.207	263.339

2011	581.180	19.205	561.975	318.465	12.676	305.788	390	95	295	262.324	6.432	255.892
2012	582.270	20.867	561.403	317.004	14.122	302.882	413	122	291	264.853	6.623	258.230
2013	581.871	20.229	561.642	310.267	13.512	296.755	390	55	335	271.214	6.662	264.552

Source: Institute of Statistics, Republic of Srpska, adjusted by authors

Table 2 – Arable by ownership, ha, %

	Total			**Total %**		
	T	**BE**	**AFH**	**T**	**BE**	**AFH**
2004	1.180.982	55.814	1.125.168	100,00%	4,73%	95,27%
2005	1.186.072	55.888	1.130.184	100,00%	4,71%	95,29%
2006	1.192.230	58.188	1.134.042	100,00%	4,88%	95,12%
2007	1.191.416	56.206	1.135.210	100,00%	4,72%	95,28%
2008	1.174.077	46.262	1.127.815	100,00%	3,94%	96,06%
2009	1.168.812	39.326	1.129.486	100,00%	3,36%	96,64%
2010	1.167.510	41.304	1.126.206	100,00%	3,54%	96,46%
2011	1.162.359	38.408	1.123.950	100,00%	3,30%	96,70%
2012	1.164.540	41.734	1.122.806	100,00%	3,58%	96,42%
2013	1.163.742	40.458	1.123.284	100,00%	3,48%	96,52%

Source: authors' calculation

Table 3 – Arable land structure by use and ownerhip

	Arable land and gardens			**Land sawn**			**Nurseries, flowers and decoration plants**			**Fallows and uncultivated arable field**		
	T	**BE**	**AFH**	**T**	**BE**	**AFH**	**T**	**BE**	**AFH**	**T**	**BE**	**AFH**
2004	50,00 %	4,73 %	95,27 %	29,64 %	3,26 %	96,74 %	0,04 %	31,72 %	68,28 %	20,31 %	6,80 %	93,20 %
2005	50,00 %	4,71 %	95,29 %	29,13 %	3,67 %	96,33 %	0,04 %	25,21 %	74,79 %	20,83 %	6,13 %	93,87 %
2006	50,00 %	4,88 %	95,12 %	29,17 %	3,83 %	96,17 %	0,04 %	31,57 %	68,43 %	20,80 %	6,30 %	93,70 %
2007	50,00 %	4,72 %	95,28 %	29,51 %	4,24 %	95,76 %	0,03 %	43,77 %	56,23 %	20,46 %	5,35 %	94,65 %
2008	50,00 %	3,94 %	96,06 %	29,73 %	4,02 %	95,98 %	0,04 %	34,59 %	65,41 %	20,24 %	3,77 %	96,23 %
2009	50,00 %	3,36 %	96,64 %	27,67 %	3,59 %	96,41 %	0,04 %	36,40 %	63,60 %	22,30 %	3,02 %	96,98 %
2010	50,00 %	3,54 %	96,46 %	26,70 %	3,94 %	96,06 %	0,04 %	34,46 %	65,54 %	23,26 %	3,02 %	96,98 %
2011	50,00 %	3,30 %	96,70 %	27,40 %	3,98 %	96,02 %	0,03 %	24,36 %	75,64 %	22,57 %	2,45 %	97,55 %
2012	50,00 %	3,58 %	96,42 %	27,22 %	4,45 %	95,55 %	0,04 %	29,54 %	70,46 %	22,74 %	2,50 %	97,50 %
2013	50,00 %	3,48 %	96,52 %	26,66 %	4,35 %	95,65 %	0,03 %	14,10 %	85,90 %	23,31 %	2,46 %	97,54 %

Souce: authors' calculations

The average size of AFH land is around 2 hectares, but more than 80% of total are smaller than 5 hectares. Many other agricultural problems are connected to importing and exporting issues, where this country fails in both field: importing and exporting. In terms of import, domestic product are exposted to competition of imported, foreign products with quite lower price, and same, or even higher quality. On the other hand, the importing policy of contries in the region and wider, is not going in favour of Republic of Srpska, having in mind high standars which are set by European Union and at the same time very poor export encouragement policy of Bosnia.

In order to remain at this paper title and subject, only problems connected to, and caused by ownership structure are going to be analyzed, from reasons which follow: Agricultural land possesed by state, is made available to the big enterprises with state-owned capital. In those enterprises, is mainly carried out the process of managerial professionalization. Not in its full meaning, but on some level it is. Going further in discussion on process of managerial professionalization in those enterprises would automatically lead to discusing politics. From that reason, in this paper, it will be left on a side. When it comes to the most of agricultural land of Republic of Srpska, which is owned by individuals or families, ownership issues cause several problems. First of all, in past years there was a trend of selling farmland to big contructing companies which use the land purchased for contructing residential and commercial buildings. There are two more possible negative outcomes of private-owned farmlands. One of them is case where owners do not have an interest of selling their properties, but are not interested in exploitation of it as well. In that case, farmlands are healing and loosing on their productibility. In other words, those properies are on one hand loosing on their productiveness, which is direct negative concequence and, on the other hand, the agriculture of Republic of Srspka is suffering from that way of non-exploitation of farmaland. Third negative aspect is owners' „non-managerial“ attitude. By that is meant that they tend to consider their farmland as their personal wealth (which undubitably is true), but they forget that their farmland is economic good, as well, according to what it should be used in most cost-effective and rational manner. To be more specific, achieving: effectiveness, profitability and productivity, and in addition profitability maximisation. Unfortunately, many owners fail to fulfill those, due to their non-managerial competences and altitude. As owners, they mostly think in way to do as much as they need in order to provide themselves and their families existency, but not less, nor more. That would be a typical „possesor's“ (landowner's) altidute and that is what hinders the owner from acquiring managerial instincts and competitiveness. The result is not reaching the full potential of a farmland, which again leads to a double negative effect: firstly, owner is disabled to maximize his/hers own wealth, and secondly, indirecty the agriculture od Republic of Srpska and its economy in global, suffer.

1.3.„Who uses what/not and how much?“

The structure of arable land in Republic of Srspka by way and use is already given. Now, it will be considered „who uses what and how much“. It is analyzed in which purpose do BE and AFH use their lands. By „Total in use“ is considered sum of arable land and gardens, land sawn and nurseries, flowers and decoration plants. Fallows and uncultivated arable field represents „not in use“.

Table 4 – The Structure of Business Entities' arable land by use; ha, %

	Total		Total in use		Arable land and gardens		Land sawn		Nurseries, flowers and decoration plants		Fallows and uncultivated arable field (not in use)	
2004	55.814	100,00%	39.496	70,76%	27.907	50,00%	11.425	20,47%	164	0,29%	16.318	29,24%
2005	55.888	100,00%	40.739	72,89%	27.944	50,00%	12.673	22,68%	122	0,22%	15.149	27,11%
2006	58.188	100,00%	42.562	73,15%	29.094	50,00%	13.325	22,90%	143	0,25%	15.626	26,85%
2007	56.206	100,00%	43.171	76,81%	28.103	50,00%	14.917	26,54%	151	0,27%	13.035	23,19%
2008	46.262	100,00%	37.294	80,61%	23.131	50,00%	14.016	30,30%	147	0,32%	8.968	19,39%
2009	39.326	100,00%	31.447	79,96%	19.663	50,00%	11.618	29,54%	166	0,42%	7.879	20,04%
2010	41.304	100,00%	33.097	80,13%	20.652	50,00%	12.292	29,76%	153	0,37%	8.207	19,87%
2011	38.408	100,00%	31.976	83,25%	19.205	50,00%	12.676	33,00%	95	0,25%	6.432	16,75%
2012	41.734	100,00%	35.111	84,13%	20.867	50,00%	14.122	33,84%	122	0,29%	6.623	15,87%
2013	40.458	100,00%	33.796	83,53%	20.229	50,00%	13.512	33,40%	55	0,14%	6.662	16,47%

Source: authors' calculation

From the table enclosed can be notices that there is a positive trend in use of arable land for agricultural purposes by BE. BEs use between 70,76% and 83,53% of arable land in agricultural purposes. The rest, form 16,67% to 29,24% is probably used as land on which are contracted facilities etc.

Table 5 – The Structure of Agricultural Family Holdings' arable land by use; ha, %

	Total		Total in use		Arable land and gardens		Land sawn		Nurseries, flowers and decoration plants		Fallows and uncultivated arable field (not in use)	
2004	1.125.168	100,00%	901.611	80,13%	562.584	50,00%	338.674	30,10%	353	0,03%	223.557	19,87%
2005	1.130.184	100,00%	898.311	79,48%	565.092	50,00%	332.857	29,45%	362	0,03%	231.873	20,52%
2006	1.134.042	100,00%	901.738	79,52%	567.021	50,00%	334.407	29,49%	310	0,03%	232.304	20,48%
2007	1.135.210	100,00%	904.468	79,67%	567.605	50,00%	336.669	29,66%	194	0,02%	230.742	20,33%
2008	1.127.815	100,00%	899.190	79,73%	563.907	50,00%	335.005	29,70%	278	0,02%	228.625	20,27%
2009	1.129.486	100,00%	876.777	77,63%	564.743	50,00%	311.744	27,60%	290	0,03%	252.709	22,37%
2010	1.126.206	100,00%	862.867	76,62%	563.103	50,00%	299.473	26,59%	291	0,03%	263.339	23,38%
2011	1.123.950	100,00%	868.058	77,23%	561.975	50,00%	305.788	27,21%	295	0,03%	255.892	22,77%
2012	1.122.806	100,00%	864.576	77,00%	561.403	50,00%	302.882	26,98%	291	0,03%	258.230	23,00%
2013	1.123.284	100,00%	858.732	76,45%	561.642	50,00%	296.755	26,42%	335	0,03%	264.552	23,55%

Source: authors' calculation

The situation by AFHs in terms of their arable land by use is quite similar to BEs case. Between 76,45% and 80,13% of arable land is used for agricultural purposes, while the rest of 19,87% to 23,55% is not being used for agricultural activities. But the direction of changes in structure, respectively the character of the trend in structure-by-use-change is negative. The structure of arable land by use is changing in favor of reducing the land used for agricultural activities. This is mostly due to the trend of selling arable land to constructing companies.

Even though the relative numbers (percentages) of arable fields „in use“ and „not in use“ in case of BE and AFH are comparable, their absolute numerical amounts are completely matchless, so the their causes on agricultural of Republic of Srspska is very different in terms of scope. The size of „not in use“ arable land in case of BE ranges between 16.318 ha and 6.662 ha (decreasing trend), while in the case of AFG it ranges between 223.557 ha and 264.552 ha (increasing trend). If it is supposed that 1 ha of arable land contributes to agriculture in certain amount, regardless to its

ownership structure, the negative result, of the suffer caused to agriculture of Republic of Srpska by AFH's disuse compared to BE's disuse is near fourteen times larger.

1.4. Conclusions on agricultural issues

The conclusions and notes made in this section should be the following:

1. The considerable fraction of total arable land in Republic of Srspka is owned by AFH
2. Agricultural Family Holdings are not typically organized as economic systems, but rather as „social systems“
3. Landowners are lacking managerial competitiveness
4. The suffer which impropriate use or disuse of arable land owned by AFH causes to the agriculture of Republic of Srpska is considerable
5. Arable lands managed by professional managers in comparison to those managed by owners are used in more economically efficient way
6. The change in structure of arable lands by use is in case of BE positive, while in the case of AFH negative
7. Scarcity of resources demands that resources get assigned, in way that they devolve to those who make the best use of them. Arable lands are limited resources, for which reason a „maximization-seeking“ manager should manage with it, not the „sufficiency-agreeingž2 . ownerz.

2. Managerial professionalization and all its advantages

2.1. Managers and owners in terms of agriculture

Being a manager means sharing the responsibility for performance and for the business success. (Drucker, 1974, p.380) The one which is not willing to accept that responsibility, is not a manager.(Drucker, 1974, p.390) According to Peter Drucker, management is always connected to responsibility. Under that is considered responsibility to someone or something else. If manager is not at the same time owner as well, first of all he is responsible to the owner of business. On the other hand if manager is also the owner of business system, it does not means that his responsibility terminates. Manager is always responsible for business with he manages in whole to all stakeholders. Since the responsibility towards ownership is most emphasized due its strong concern, connection and involvement in business, the responsibility towards the other stakeholders is very often overlooked. From that reason, manager-owners are very often caring only for their own interests and its satisfaction, they are being „responsible to themselves“. The interest of stakeholders are very often diametrically different, so the satisfaction of one stakeholder's interest doesn`t lead to the satisfaction of another's stakeholder interest. What is more, it has nothing to do with it. The consequence of such „self-oriented“ management can be huge to the business environment. As an example could be shown the situation with AFH. One AFH uses it arable land for garden. Their interest is to produce enough of vegetables to provide themselves during the year. That is why, they are only using a part of land and not on full potential. The performance of their garden is measured by harvest of vegetables. So, if they have enough vegetables to eat and are not hungry, they will grade their garden as success. For example, on yearly level their production is 500kg which is enough for them and they even have more, which they distribute to their friends and relatives. The AFH analyzed is for sure going to rate their performance as successful. But let`s now consider the interest of stakeholders. In this case, the stakeholder which is going to be analyzed is state. The Ministry of Agriculture has estimated that arable land, with such characteristics, has a potential of producing 5.000kg a year. They would evaluate the performance of arable land as unsatisfactory, since it tends to fulfill 10% of its potentials. What is more, the Ministry would also take into consideration that the arable land mentioned caused the agriculture of state 4.500kg times price per kilo, having in mind the opportunity cost.

Binding management and ownership in traditional primary agricultural production does not come from its nature. To that, yield the conditions which are influencing on formation of family agricultural economy in way that there are becoming smaller and smaller. (Vujovic, Malesevic & Ristic, 2006, pp.3-4)

Management professionalization depends on size and character of business as well as its development level. An universal role says as follows: the managerial activities (planning, organizing, leading, influencing and control) should be delegated by owners to the other individual – a professional manager in moment when knowledge, abilities and skills.

2.2.Argibusiness managers

First is it to be introduced that there are different opinions on meaning and use of terms: agribusiness management, agro-management, agricultural management etc. in this paper is going to be used term agribusiness management and agribusiness manager, respectively. Under agribusiness in this context is considered not only the production of vegetable crops and animal species, but the agriculture in whole which means the whole process of provision, deployment and use of human and material resources with the aim of achieving certain, established goals.

For management in agriculture is said that it is a business function by which are reached the goals of agriculture, and which is oriented to prompt information flow about doing business: primary production and the production of final goods.(Djurovic & Jelic, 2012, p.192)

The importance of agricultural management arises from the importance of agriculture in specific country. While the complexity of agricultural management arises from diversity of production units forms by size, ownership, resource combination, organizational and production structure, level of applied technology, labor structure, conditions of economy environment and competition. (Djekic, 2010, p.4)

Manager in agriculture should contribute to rising the level of knowledge about agriculture's needs for loans and to provide priority investment in agriculture, so as to encourage the transfer of knowledge from researching institutions to the agricultural properties in order to meet the vary needs of the farmer. With such mechanism of knowledge, research policy is settled and the process of making priority decisions, and at same time the researchers and producers are being banded Agricultural management should notice the role and the importance of financing agriculture for its profitable and development in whole. (Djurovic & Jelic, 2012, pp.192-193)

Activities and responsibility of managers in terms of their type do not depend on economic activity in which they are managing the business. The thing which distinguish is actually the scope and character of their activities and responsibilities. Regardless to the economic activity, all managers will in order to carry out their tasks, do the universal managerial activities: planning, organizing, employing, influencing and control. So, every business which has needs for planning, organizing, employing, influencing and control, is in the need of managers as well. Whic undoubtedly, all agricultural businesses are.

2.Managerial professionalization

2.1. Managerial competitiveness and its importance

Competitiveness is a relatively permanent trait on which a person may be characterized. People vary in terms of their competitiveness. Competition, on the other hand, has typically been defined in psychology in terms of the manipulation of the social processes that occur in a situation. (Lee Johnson, 1992, p.8)

Term of competitiveness is often interpreted as an altitude which develops as a result of a discrepancy between the level of achievement and the level of aspiration.When talking about managerial competitiveness there is a bound of characteristics which could be mention and graded as important, or it could be agreed that they contribute to the increase of company's performances. But under managerial competitiveness in this concept would be considered only the crucial ones.

Competitivnesess could be understood as an assemblage of knowledge, skills and abilities gained or possesed by person, which is manager in this case. The origins of polemic discussion about managerial competitiveness can be found in first discussions about the management as term. While some claimed that management is a science, the other denied it by saying it is nothing more than a skill, some were comparing it to "innate gift", part of researches agreed that the management is all of that. The proposal of the last mentioned group was taken as universal and this is where the definition from the beginning of paragraph find its origins: since management is a science, people who are engaged din management, must beforehand study it's theoretic and scientifically findings; since management is a skill, in order to carry it out, managers need to be adapt; and since management is "innate gift", people who have different abilities such as ability to deal with a risk, etc. perform better in managerial business, but this certainly does not mean that those abilities are only innate, on the contrary, those crucial for management can all be acquired by experience (lesson learned). The possession of whole set of managerial competitiveness is crucial for becoming a professional manager, by what is meant not only being the person who does management for profession, but a person who is a professional (an expert) in doing managerial business.

To conclude, managerial competitiveness would include:

- having knowledge of a broad scope of management and its connected scientific field as entrepreneurship, accounting, marketing and economy in whole
- having acquired different skill as a leadership, work in teams, public speaking, organizing, facilitating meeting, negotiation etc
- having gained experience in work in praxis on different working places, especially on managerial positions
- having different abilities as dealing with risk, taking the initiative, solving problems etc.
- having personal preferences as desire for success, being entrepreneurial, unremitting etc.

The reason why are the above mentioned crucial for managers is found in the nature of managerial activities, which are very demanding in terms of planning, organizing, employing, influencing and control, subject to changing, often unpredictable, challengeable, it deals with a lot of resources and those resources are very expensive, the job of manager is exposed to competitors etc.

2.2.Managers professionals

Professional managers are simply hired experts, who manage the firm's business on professional basis and according to previously accepted and signed professional contract, and they are responsible to the owners for their results achieved. (Babic & Lukic, 2009, p.357)

All enterprises based on the permanence of their business can be divided into three groups:

1. Those who started business, did it for a short period of time and then ceased to operate
2. Those who are doing business for a long period of time but always in same scope and on same level of development
3. Those who are doing business for long period of time with constant growth and developmetn, which means with progress.

Depending on organization of basic functions of every organization (ownership, management and execution), which depends on stage of development of firm, all of them can be divided into three groups:

1. Those where all functions are embodied in same person – its owner This is at same time first stage of development.
2. Those where execution is delegated to employers, while the owner is manager, as well. This is second stage.
3. Those were owner delegated both execution and management function to the others. This is third phase of development.

Between those two grouping exists a strong connection. The path to reach the phase of doing business for a long time, demand delegating the execution. Further, the only path to achieving progress is delegation of both management and execution. One firm can reach relatively high performances if it does business for a long time in same scope, but in order to achieve progress it must have a constant increase of performances. That is how the performances of business system depend on managerial professionalization.

Possessing the competitiveness explained in previous section is not the only assumption of becoming a manager, but it is a great part of it. Competitiveness lack their confirmation and validation of "professionalism". Actually, some of the aspects of competitiveness do have their validation, like for example knowledge. Person who finishes schools in management or business certainly does have the diploma to prove it. But as much as it is important to have "written and signed" confirmation of "professionalism", it is also important to have it in praxis. That means that the possession of diploma by itself does not implicitly means the person masters the knowledge. Without market confirmation of "application of gained knowledge", a person cannot become a professional managers. Another assumption of professional management is its separation from ownership, which means that in firm, one person should be an owner, and another should do the management.

The reasons for distinguishing management from ownership are the followings: (Babic & Lukic, 2009, pp.356-357)

1. Ownership in company is not permanent, which, due to the share market, can vanish over time. That means that a person is an owner of the firm only up to point when he sells the shares of company to another person. In that moment, by purchasing, at the same time is transferring the ownership form seller to buyer.
2. Second reason is the fact that by purchasing shares and the cessation of ownership, or co-ownership, performance of managerial functions does not and must not stop. They continue to be carried out, regardless to owner.
3. Third reason is the fact that for successful management of company's business, so as the individual economic enterprises on a certain point of their growth and development, is needed very high knowledge about management and business, which is gained by experience and training in appropriate educational institutions of higher rank.
4. Fourth reason is that corporations have a lo of owners, sometimes more millions from which reason is technically impossible for all of them to beside owning the firm, participate in its management. That is why the companies hire experts and professionals for this job.

On the above list could be added one more reason which is the partial opposition of interest from owner and manager. Owner is interested in earning as much as possible profit. His profit comes directly from company's profit. So everything what company earns can be transferred to him. On the other hand, the reason why is manager interested in company's profit is different. Company's profit in case of a manager presents a measurement of his achievement and if it very

high, especially when it is higher than planned, managers gets extra bonuses, prices etc. so, manager's interest on profit is more indirect. Another thing is manager's salary. All salaries represent a cost for a firm, so the manager's. costs are confronted to revenues and the difference represent a firm's profit. As higher as costs are, the profit is lower, which means as higher as manager's salary is, the firm's cost are higher while profit is lower. Since the profit of firm represent a profit on owner, the interests of owner and manager are in this case confronted.

In case of big institutional form of organizing agricultural business, all the reasons mentioned would be arguments for managerial professionalization and delegation of managerial activities from owner to another person – manager, who is not at same time the owner of firm. But, as mention in first section, the characteristic of agriculture in Republic of Srpska predominantly include the small agricultural family holdings. So, the previously written argument will be "translated" into an agricultural context:

1. Reason 1 and 2 can be integrated by giving the argument that there are no shares, but despite that, ownership is not permanent. It is transferred from one family member to another, and AFH could be also sold to another owner, so the change of ownership must not cause the termination of management of AFG, and it is inefficient to change the manager whenever owner is changed.
2. Reason 3 is clear enough
3. Reason 4 is partly true in case of AFG. There are not a millions of owner, but as more owners-managers there are, it is harder to agree on decisions and the performance of work is becoming poorer since there are too many people with different altitudes.
4. Reason 5 is discussable. In this case for owner would always be better to pay himself the highest salary possible for his position of manager, because by decreasing the profit, he would pay less taxes, and the residue that remains of the tax deduction belong to him anyway. But in that case, the ethics and moral of ownership surely come are being questioned, because the solution which is rational to him, is not fair towards the government. Also, by maximizing his salary and decreasing profit by that, he is serving himself in short turn, but in long turn he does damage to firm. With low profit, firm will not be able to invest in reproduction and will not be able to invest in development and growth.

Conclusions

Mangerial professionalization has its reasons for whenver the scope of business allows hiring an expert. Of course, in case AFH, if their only goal is to produce for its own needs, of course that hiring the proffesional manager is not rational, but if were willing to change theri goals and if they hired a professional manager, they could produce more and the performance of their business would be higher. As before mentioned, every owher should delegate the managerial functon to an other person in moment when the scope of business, as much as the knowledges, skills and ability needed to perform the work. But, it could be added that whenever the marginal cost of hiring a professional manager is lower than the marginal revenue of hiring him, thehe is a strong argument for managerial professionalization. Professional managers in comparison with owners have higher motives, more complex strategies, more demanding goals, and they have the full set of "necessities" to fulfill those, they are leading the firm to reach higher potentials, and to increasing the performances.

The way how professional managers determine the performance of agriculture can be explained on following way:

1. Both owner and manager stream to reach their goals. In that, they are led by their planned goals. Every goal needs to be quantified. Plans of managers are always on higher level in comparison to owner's, so in terms of quantification, in case of manager,

the goal is represented by higher number for revenue, profit, production, but lower in case of costs etc. Which means that the performance of business system managed by professional manager, due to its goals, always need to show higher performance compared with the performance of business system managed by owner.

2. Goals depend on mission and vision. Mission and vision which professional manager sets for the business system is always more demanding and includes higher performance. Mission and vision of professional managers is always making the business which he manages, “number one” on some market, while in case of owner its mostly oriented on family and household, or small market.

References

1. Babic, M. & Lukic, Z. (2009). *Management*, Centar Belgrade & University of Banja Luka Faculty of Economics, Belgrade
2. Djekic, S.M. (2010). *Agro Management*, Faculty of Economics in Nis, Nis
3. Djurovic, J.M. & Jelic, M.A. (2012). Management in Agriculture, MESTE – Management – Education – Science & Society – Technology – Economics, Papers. http://www.meste.org/konf/Arhiva/Man_2012/pdf/RADOVI/Djurovic.pdf (accessed: 09.07.2015.)
4. Drucker, P.F. (1974). *Management*, Harper and Row, Publishers, New York
5. Lee Johnson, D. (1992). Competitiveness and performance in the workforce: hierarchical factor analysis of managerial competitiveness, achievement motivation, and the big five personality dimensions, Iowa State University, Library, Research. http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=11005&context=rtd (accessed: 03.08.2015.)
6. Malesevic, L, Vujicic, M. & Ristic, L (2006). *Management in Agribusiness*, Interprint Kragujevac, Kragujevac

PART NINE:
INNOVATIONS, INCUBATORS, ICT, SUSTAINABLE DEVELOPMENT

ENHANCING COMPETITIVENESS TROUGH COLLABORATIVE INNOVATION PARTNERSHIP – A CASE STUDY OF MACEDONIAN COMPANY

Angelina Taneva-Veshoska PhD[330],
Slavica Trajkovska M.Sc.[331],
Kristina Antic M.Sc.[332]

Abstract

Purpose: The purpose of this paper is to explore current situation of investments in R&D in Macedonia, compared to other western Balkan countries, with specific focus on business investments in R&D. The incentives of the business sector to invest in research and innovation activities, the return on these investments and industry-science collaborations are also explored. A case study of a Macedonian company, which established private research institute, creating a collaborative innovation partnership, is explained.
Design/methodology/approach: Qualitative research in a form of interviews among mangers and case study of Macedonian company was used to obtain data about the motives for investments in R&D and explore the collaborative innovation partnership between the company and the research institute.
Findings: The findings show strong collaborative partnership between company and research institute which is strongly influential of the competitiveness of the company.
Research limitations/implications: This specific collaborative innovation partnership explored in this paper is very rare case in Macedonia. More examples and studies like this are needed to propose specific model and make strong recommendations. Our recommendation is to replicate the research and compare the analyses with different companies.
Practical implications: This study is expected to increase the motivation of other companies to invest more in R&D activities and engage in collaborative innovation partnerships.
Originality/value: This research contributes to the filed by offering new findings and proposing new model for enhancing company's competitiveness and innovation. This study adds to the body of literature in what is considered relatively new and unexplored area of study. The survey conducted in Macedonian company contributes a lot for the knowledge about business investment in R&D in Macedonia.

***Keywords**: Business Investment in R&D, Collaborative Innovation Partnership, Competitiveness, Industry-Science Collaboration, Macedonia*

[330] Institute for Research in Environment, Civil Engineering and Energy, Skopje, Macedonia, angelina@iege.edu.mk
[331] Institute for Research in Environment, Civil Engineering and Energy, Skopje, Macedonia, slavica.trajkovska@iege.edu.mk
[332] Institute for Research in Environment, Civil Engineering and Energy, Skopje, Macedonia, kristina@iege.edu.mk

Introduction

Investments in knowledge and innovation are very important for productivity growth. These investments lead to creating new knowledge, new technologies, new products and services, ensuring more jobs and contributing to increased welfare.

In the knowledge-based economy, knowledge has become the key driver of economic competitiveness and success (Batagan, 2007). The EU Sustainable Development Strategy identifies R&D as one of the two cross-cutting policies contributing to the knowledge society (EC, 2010). Across Europe, the importance of innovation as a driver of growth and competitiveness has and will continue to increase, thanks to the slow rate of population growth in the region, diminishing returns on additional capital investment and increasing competition from other regions.

The research and development (R&D) represent a crucial input to the innovation process and encompass the premarket activities performed by a number of agents such as: public scientific institutions, universities, inventors, and firms. R&D investments are very unique type of investments, involving long research period, uncertain outcomes, high-risk of return. Although different in nature and funded by various sources, R&D expenditures significantly determine the innovation capacity of a given country.

The purpose of the first part of this paper is to review the current situation in Macedonia regarding investments in R&D, with specific aim to address business investments in R&D, and explore the motives and benefits from these activities. The second part of the paper is to focus on the significance of industry-science cooperation and emphasize one new approach to innovation through collaborative innovation partnership. In this paper a case study of a Macedonian company which invested in establishing research institute is explained, and the effects of their collaboration are presented.

Investments in R&D in Europe

The R&D as a specific group of activities is mainly focused on increasing the productivity level of the companies which, in turns would lead to higher levels of economic growth. In general, R&D activities are conducted by specialized units or centres belonging to a company, or can be outsourced to a contract research organisation, universities, or state agencies (Švarc, 2014). The economic reforms in the Western Balkan Countries during the period of transition have put the science, technology and innovation policies as second priority which led to deterioration of their research capacities (WB R&D Innovation Strategy, 2013). On Figure 1 we can clearly examine the expenditure in R&D in Serbia, Macedonia, Albania, Montenegro, Croatia and Bosnia and Herzegovina in the last decade.

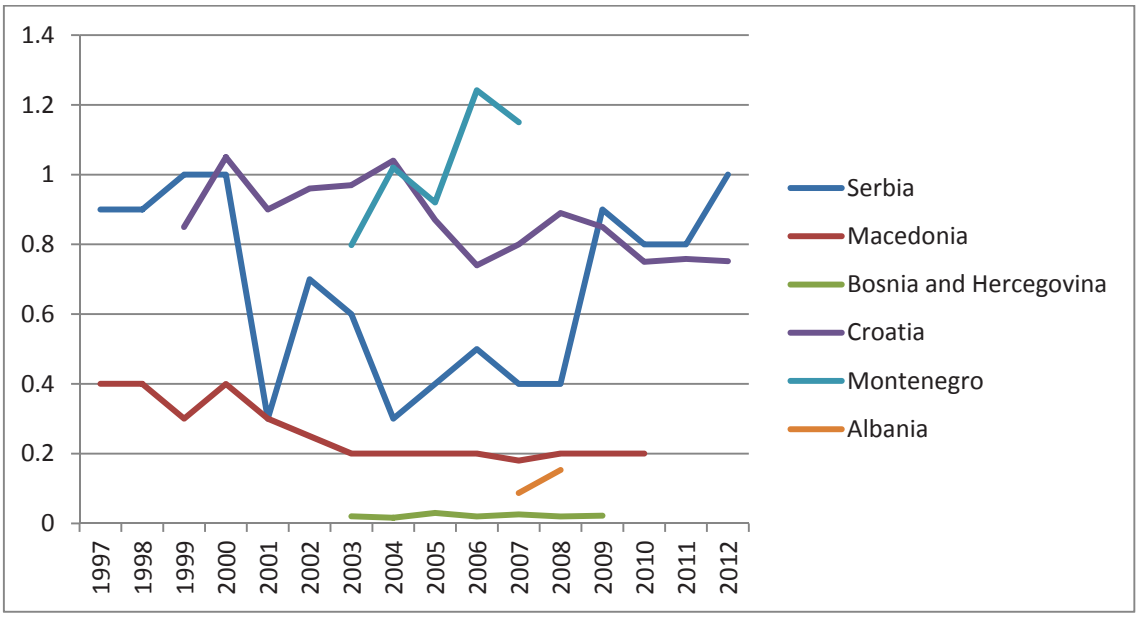


Figure 1. Expenditures in R&D by country in western Balkans
Source: World Development Indicators

From Figure 1 it can be observed that GERD in Macedonia, Albania and Bosnia and Herzegovina are below 0.4% of GDP; the share of GERD in Serbia is about 0.75%, whereas in Montenegro is about 1,15%. In sum, these amounts of expenditures are much lower compared to the EU average which is above 2%. The Western Balkans' scientific performance is, for the most part, substantially below that of the average EU country in both quantity and quality. Macedonia spent 0.22% of its GDP on R&D in 2010 which is one of the lowest percentages in Europe. The biggest contributors to total R&D expenditures by funding sources are the governmental sector with 50.3%.

An analysis of R & D expenditure by source of funds shows that more than half (55.0%) of the total expenditure in 2012 within the EU-28 was funded by business enterprises. For comparison, business-funded R & D accounted for 76.5% of total R & D expenditure in Japan (2011 data), 74.0% in China and 59.1% in the United States (EUROSTAT, R&D Expenditure).

Innovation performance trends in Europe

Europe as a region varies greatly in terms of both competitiveness and innovation. The large differences between European countries are driven by factors such as the number and quality of linkages between firms and entrepreneurial ventures, and between the private and public sectors. According to Innovation Union Scoreboard countries in Europe by the values of its innovative performance are grouped into four groups: Innovation leaders, Innovative followers, Moderate innovators and Modest innovators. The total index for innovative performance of countries in Europe is shown in Figure 2.

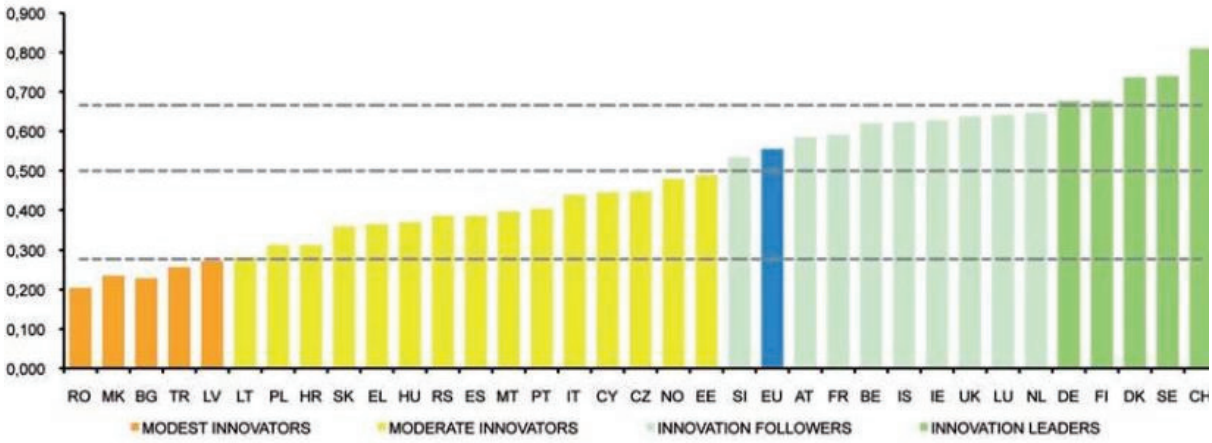


Figure 2. Innovation performance in Europe
Source: Innovation Union Scoreboard, 2015

According to this year's report Macedonia is modest innovator and performing very similar to Romania, Bulgaria, Turkey and Latvia. In the report Macedonia is described as a country which is performing well above average in Non-R&D innovation expenditures and SMEs with product or process innovations, and its growth performance (3.7%) has been well above that of the EU (Innovation Union Scoreboard, 2015). Macedonia spent 0.22% of its GDP on R&D in 2010 which is one of the lowest percentages in Europe. The biggest contributors to total R&D expenditures by funding sources are the governmental sector with 50.3%.

On the Figure 3 a comparison of innovation performance of EU and Macedonia between 2007 and 2014 is shown.

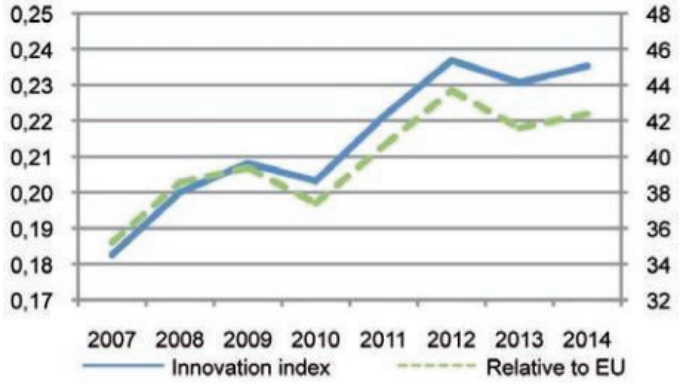


Figure 3. Comparison of innovation performance of EU and Macedonia
Source: Innovation Union Scoreboard 2015

Innovation performance in Macedonia was increasing between 2007 and 2012, but has declined slightly since then. As shown on the Figure, Macedonia has been catching up to the performance level of the EU: its relative performance improved from 35% in 2007 to 42% in 2014. It can be concluded that Macedonia is performing well below the EU average for nearly all dimensions and indicators.

The Government of Macedonia has taken the first steps towards strengthening the legal framework of innovation by adopting the Innovation Strategy in October 2012, which was developed with leadership by OECD, and the Law on Innovation Activity in May 2013 (Innovation Strategy, 2013). The Strategy aims to strengthen policymaking, coordination and implementation capacity for support to innovation, skills and technological development. In parallel, the MOES developed a Program for Development of Science and Research for the period 2013-2017 and invested in upgrading R&D laboratory facilities at universities.

Business investments in R&D

Knowledge about the impact of R&D investments in the business sector has become increasingly important for policy making. According to endogenous growth theory (Romer 1994), growth is a result of endogenous forces such as new knowledge and technology. R&D plays a significant role in both creating new knowledge and technology. Furthermore, international economic research points out that an important share of the economic growth in advanced economies comes from public and business sector investments in R&D and innovation (Goel et al., 2008). Moreover, both the OECD and recent academic research point out, that the return on investment from R&D is significant.

There are number of benefits for the business sector when investing in R&D, like creating unique products or services, patents for the developed products, gaining competitive advantage by bringing innovative products to the market, etc. Studies found that the relationship between R&D investments and business growth can vary according to industry. Most likely industries which will easily benefit from R&D investments are automotive, pharmaceutical, engineering, IT industry. The R&D expenditures of enterprises are often correlated to higher sales and productivity growth, as well as a propensity to export. Further, product innovation, which results from R&D efforts, leads to employment growth and more qualified and better paid jobs by expanding demand and new business opportunities.

The potential impact that investments in research and innovation have on productivity growth is even higher for developing countries, given the opportunity for catching up that is associated with larger investments in innovation. Results from a study using firm level data for the Western Balkans show that innovative firms grow 15 percent faster in sales and 8 percent faster in labor productivity than do non-innovative firms. The Business enterprise sector in Gross Domestic Expenditure on R&D represents only a modest share compared to the EU average in all WBC. For instance, according to the Erawatch platform on research and innovation policies and systems, the private sector shares on R&D in WBC are on average between 15 and 20 percent which is much lower compared to the EU average of 63 percent in 2012 (WB Regional R&D Strategy for Innovation, 2013).

More investments for R&D by business sector will enable the creation of new knowledge and its diffusion among companies, increasing investment in equipment and machinery, increasing number of patents and licenses, new production technologies and ideas, fostering entrepreneurship and stimulate innovation activities of companies (Cvetković, 2011). Business investments for innovation have significant private and social economic returns. The existing literature suggests that the overall return to R&D investment is very large: about 25 percent as a private return and 65 percent for social returns (Sveikauskas, 2007).

There are a few examples in Macedonia of excellence in applied R&D (such as the Institute of Earthquake Engineering) university spin-offs (such as CIRKO at the Faculty of Mechanical Engineering in Skopje, MIR Foundation/SINTEF, the Innovation Center and Innovation Financing Vehicle), industry (such as Alkaloid JSC in pharmaceuticals, HiTech Corporation, a PCB manufacturer and others) and industry-science collaboration (Alkaloid and Faculty of Pharmacy and Medical Institute at the University of Ss. Cyril and Methodius in Skopje).

Value of industry-science collaboration

Practices show that the national economies which want to compete in the global market, have to realize the importance of cooperation between faculties, industry and government in creating new innovative products (Perkušić et al, 2012). Collaboration between industry and science is

considered one of the most important aspects of the innovation system. To support these collaborations it is important to understand why and how intensively companies collaborate with scientists, and how they rate such collaboration.

Literature contains several empirical papers that explore reasons that motivate companies to collaboration. Caloghirou et al. examined the joint research projects that were conducted in the context of European framework programmes and found several main reasons why companies collaborate with universities. Companies collaborate in order to achieve synergies in the research programme, to keep track of technological developments more easily and in order to split research costs. It was also found that collaboration contributes to development of new production processes, even though no significant influence of collaboration on the development of new products was shown (Radas, 2005).

Apart from motivation, it is important to know whether collaboration has any effect on a company's innovation capabilities, and hence on its performance. Lee (2000) conducted a research among American companies that collaborate with universities, and found that companies involved in such collaboration were able to demonstrate improvements in specific areas. Specifically, the companies gained better access to new research and inventions, and collaboration also helped them develop new processes and products.

According to the GfK survey about industry-science collaboration in Macedonia, less than 9% of companies have links with Macedonian universities, and only 5% have connections with research institutions. In the area of collaboration, Macedonian companies included in the GfK survey are primarily cooperating with suppliers (59%) and customers (55%), while the level of joint activities with other enterprises is rather low among companies in the same sector (31%), and almost nonexistent with other business (3%). The most common source of knowledge and support used by the surveyed companies are consultants (16%) from the Macedonian private sector. Even cooperation with the universities is largely based on consultancy (43%) and training (26%). The companies' lack of cooperation among themselves and with the universities and research centers is partly a result of the companies' low level of networking. More than two out of three companies (68 %) stated that they are not part of any network, only one out of four companies (24%) belong to a domestic network or association, and participation in international networks/associations is almost unknown among Macedonian companies (2%) (OECD, 2011).

Collaborative innovation partnership

Closed innovations were usually the way companies innovated and innovation activities occurred within the barriers of the company. Money and time invested in R&D projects resulted in many technologies of which only some of them were marketable. Companies have traditionally focused on developing their internal R&D capabilities, rarely sharing outcomes with partners to foster mutual competitive advantage.

Innovation has become a way to survive in complex and dynamic markets and firms are exploring all options to improve the innovation process. Chesbrough pointed out to the 'nonsustainable' concept of closed innovation. An emergent view in the literature addresses that innovations arise, in particular, from interactions between firms (Nooteboom, 2006).

Open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology. Chesbrough (2003) defines open innovation as an environment in which ideas are allowed to flow outside their originating organization, to wherever they can be mostly efficiently handled at each stage of the R&D process. The principles of closed and open innovation are shown in Table 1.

Table 1. Contrasting Principles of Closed and Open Innovation

Closed Innovation Principles	Open innovation Principles
The smart people in our field work for us	Not all the smart people work for us. We need to work with smart people inside and outside our company
To profit from R&D, we must discover it, develop it, and ship it ourselves	External R&D can create significant value; internal R&D is needed to claim some portion of that value
If we discover it ourselves, we will get to market first	We don't have to originate the research to profit from it
The company that gets an innovation to market first will win	Building a better business model is better than getting to market first
If we create the most and the best ideas in the industry, we will win	If we make the best use of internal and external ideas, we will win
We should control our IP, so that our competitors don't profit from our ideas	We should profit from others' use of our IP, and we should buy others' IP whenever it advances our own business model
Source: Chesbrough, 2003	

Due to a lack of internal capacity in this regard, nowadays, companies are increasingly collaborating with external parties, moving to more open forms of innovation, leveraging partners' discoveries, and commercializing innovations with other parties whose business models are better suited to bring new goods or services to market. Such a shift towards collaborative approaches seems to make business sense – there is emerging evidence that such collaborations enable companies to accelerate innovation and create more competitive market positions, whereas companies that remain internally focused face slower time-to market, higher development costs, and loss of competitive position. Furthermore, such a shift mirrors expectations of a change in revenue sources: a recent A.T. Kearney study on "Collaborative Innovation in Digital Europe" found that 71% of respondents expected more than a quarter of revenues to be generated through collaborative innovation by 2030. Collaborative innovation also makes sense at the macroeconomic level when it contributes to firm growth (WEF Report, 2015).

Form of "collaborative innovation" – where a young firm and an established firm share complementary resources and combine efforts to support innovative ideas – can create significant value for both parties as well as for the economies in which such collaborations take place. This new approach to innovation was proposed in the WEF Report, based on more than 140 structured interviews and 20 multi stakeholder workshops involving more than 450 participants, highlighting the main challenges faced by young and established firms when they seek to collaborate, and discusses leading practices and strategies employed by both firms and policy-makers to improve the success rate of such collaborations.

Given the urgent need for economic growth in Europe and the challenges faced by innovative European entrepreneurs who seek to scale across fragmented markets characterized by limited access to venture financing, the potential of these partnerships to contribute to innovation and growth is particularly high for European firms and countries. As discussed in the Forum's report Fostering Innovation Driven Entrepreneurship in Europe, an important and valuable strategy for young firms to scale within Europe is to collaborate with larger, established firms to access a variety of financial and organizational resources. Similarly, established firms seeking to improve their external innovation capabilities can take advantage of the different perspectives, approaches and risk outlooks of young firms. Young, dynamic firms are often structured around the

development of truly novel and potentially disruptive products and services, while established firms have deep rooted processes and value networks.

Collaborative innovation partnership - Case study of Macedonian company

The Civil Engineering Institute Macedonia – CEIM is a private company established in 1975 which adopted strategy to invest in science and human capital. The leading CEIM strategy is designed with an orientation towards sustainable development and knowledge-based economy in order to encourage future generations to continue to discover, design, model, execute, monitor and improve the research and development activities and gain applied knowledge, skills and competencies required to ensure the welfare of the future generations. The growth and the development of CEIM company is closely related to investments in several segments: technological development, investments in science and education, investments in human capital, investments in improving the working environment and working conditions of employees, investments development of new activities outside our core investments and certainly in terms of marketing representation.

CEIM's values are represented in the attitude that research and development play a key role in the innovation process. Parallel to the research and development, investment in continuous lifelong learning is crucial for improving socio-economic status of any country, company and/or institute because it creates many high qualified, professional, creative, ethical individuals who need to build and manage the industry of the future.

Very specific and unique investment in science and great contribution to the society was the establishment of Private Research Institute for Environment, Civil Engineering and Energy – IECE in 2014. It was developed and implemented on the basis of the adopted strategy of CEIM for investment in science and education as the highest form of CSR. The vision for the establishment of this Research Institute was to be successfully recognized as a national, regional and international center of excellence in conducting scientific research and development, education and consulting services and to be a connection between the academic and business community. The Institute is oriented towards the future, focused on providing innovative research, education and consulting solutions for the environment, construction, energy and other related natural and social science fields.

As part of this research, we conducted interviews with CEIM managers to explore the motives of investing in R&D and establishing a research institute. It was pointed out that CEIM invested in Advisory board for one year prior to the Institute, which was consisted of interdisciplinary team of university professors. In this period the initial decision to invest in research institute was made. From the analysis of the manager's answers it was found out that CEIM has had a long tradition of collaborating with the university, working together on mutual projects and conducting research. CEIM has ISO 17025 accredited laboratory, which provides the company to conduct testing in the field of civil engineering.

Qualitative analysis from the interviews gives us more insight about their decision toward investment in R&D. Results show that main incentives to invest in science were:

- access to new technologies and processes that allow achievement of competitive advantages
- the need for solving a concrete problems related to the strategic orientation of CEIM
- CEIM has a long-term vision of development.
- There are people at CEIM who understand well what scientists can do and who act as a link between company and scientific institutions.
- CEIM has sufficient funds for investment in research and development.

- CEIM is expecting added value from the collaboration with the research institute
- Access to new networks and new projects
- Investing in science is going to contribute to the competitiveness of CEIM

The CEIM aim was to encourage investment in science and education that will lead to the creation of new knowledge, creating added value from the scientific research papers and increasing the supply of various forms of lifelong learning. So far, 65,000 euro was invested.

The first goal of this research institute is to increase investment in research and development which will strengthen academic institutions, industries, organizations and the entire country. The second goal is to encourage lifelong learning, because continuing education is vital for people who want to upgrade their job skills and knowledge.

CEIM established collaborative innovation partnership with the research institute. Challenges that CEIM and IECE faced in their collaborative innovation partnership was working with interdisciplinary teams. “Speaking the same language” meant creating mutual understanding, despite the different organizational settings and culture. Setting up teams with employees from partner institutions, rewarding collaborative activities and entrepreneurial mindsets was proven to be very positive in maintain the partnership.

This collaboration provided numerous results in the first year:

- Established link between academy and business through joint work on specific scientific-research projects. Network with universities from Germany, Netherlands, Spain, Austria, Serbia, Slovenia, Poland, Lithuania.
- Created educational programs in compliance with the needs of the business community. Successful access to EU fund for adult education from Erasmus +.
- Increased number of CEIM employees enrolled in master’s and doctoral studies, their greater commitment for completion of scientific research papers, alignment of scientific - research topics with the set CEIM strategies for their applicability and creating useful knowledge.
- Cooperation on research projects together with IECE and other scientific institutions.
- The program for mentoring new employees in CEIM was created by the need to nurture and transfer knowledge from older employees to younger employees in CEIM. This program is one of the tools for knowledge management that are developed in CEIM, which indicates the value system of the CEIM managers and their orientation towards building an organization that will be able learn and to meet the challenges of knowledge-based societies. Through the Program for mentoring new employees, they can obtain faster training and get involved in the execution of their tasks and responsibilities, as well as acquire new skills and training for independent performance of duties and increase the security of the operation and effectiveness of the work.
- Providing more opportunities for additional education of the CEIM employees. Establishing training center as part of CEIM.
- Greater creativity and innovation of CEIM employees, giving ideas and suggestions for new projects.
- Trainings for advanced tools for scientific research, advanced statistical methods for collecting and analyzing data.
- Easier access to scientific research infrastructure.
- Employees demonstrate a proactive attitude in work, teamwork and communication among all employees is improved and the job satisfaction among CEIM employees is increased. Enhancing corporative entrepreneurship.
- Issuing publications.

- Enrichment of library fund.
- Internship program established, providing mentor for each intern. Creating new job opportunities for young people in Macedonia.
- Investing in education and giving incentives to the best students at the Faculty of Civil Engineering.
- Promoting CSR activities and implementing project for the employees, like "Happy employees, successful organization".
- Creating positive image of CEIM in the community.

We can conclude that this is rare example in Macedonia, when private company invests in science and establishes research institute. This CEIM's innovative approaches will produce great results for the company and the society. It is expected that these collaborative innovation partnerships between company and research institute to bring positive impact to our society providing lot of good practices and helping lot of people in our community. The benefits from this investment for the society are many since more of these examples of good practices in the Republic of Macedonia are welcomed and needed, where the business community invests in science. This experience can be encouraging for other organizations to invest in research and development and contribute to the positive experiences of community investment.

Conclusion

Innovation is the key factor to economic growth. Investment in innovation and R&D is largely emphasized throughout the world and because is at the heart of creating and sustaining economies' comparative advantages and of raising productivity and expanding employment opportunities.

According to Innovation Union Scoreboard 2015 Macedonia is modest innovator and performing very similar to Romania, Bulgaria, Turkey and Latvia. In the report Macedonia is described as a country which is performing well above average in Non-R&D innovation expenditures and SMEs with product or process innovations, and its growth performance (3.7%) has been well above that of the EU (Innovation Union Scoreboard, 2015). Macedonia spends only 0.22% of its GDP on R&D which is one of the lowest percentages in Europe. The biggest contributors to total R&D expenditures by funding sources are the governmental sector with 50.3%.

Evidence suggests that Macedonia's research and innovation performance is not constrained by lack of ideas, as sometimes argued, but by the availability funding and support services such as accelerators, mentoring, and technology transfer offices etc.

Form of "collaborative innovation" between a young company and an established company is the new proposed approach to innovation by the World Economic Forum. This partnership provides sharing complementary resources, combining efforts to support innovative ideas and can create significant value for both parties, as well as for the economies in which such collaborations take place.

The case study of Macedonian company showed evidence of successful collaborative innovation partnership between Civil Engineering Institute Macedonia – CEIM and Institute for Research in Environment, Civil Engineering and Energy – IECE. Results from the study showed that this collaboration is enhancing competitiveness of the company and will bring even greater results on long term.

Investment in science and establishing research institute and collaborative innovation partnership has a threefold impact. Above all, it encourages young professionals to further develop their research capacity through knowledge applicability, directly affects CEIM competitive advantage, and both together encourage the internal economy and quality that Macedonia strives

for. The investments in science and human capital provide added value to CEIM, where organizational culture based on knowledge is cherished, and the share of knowledge is awarded and the knowledge and expertise of human capital is appropriately used. The success of CEIM which is based on knowledge directly depends on the ability to convert human capital, knowledge, skills and abilities into intellectual capital as the ultimate value for the company. The investments in science and human capital contribute to greater economic benefits for the Civil Engineering Institute Macedonia and to increase its innovation and competitiveness in the knowledge economy.

References:

1. Bagatan, L. (2007). Indicators for Knowledge Economy. Revista InformaticaEconomica. No. 4 (44)/2007
2. Caloghirou, Y., Tsakanikas, A. and Vonortas, N. S. (2001). University-Industry Cooperation in the Context of the European Framework Programmes. Journal of Technology Transfer. 26, pp. 153-161
3. Chesbrough, H. and Schwartz, K. (2007). Innovating business models with co-development partnerships. Research-Technology Management, Vol. 50 No. 1
4. Cvetković, S. (2011). A comparative analysis of the national innovation performance: R. Macedonia and selected Balkan countries in context of Europa 2020 strategy. Banja Luka. BiH
5. EC (European Commission). (2010). Communication from the Commission Europe 2020: A Strategy for Smart, sustainable and Inclusive Growth. COM. Brussels: EC
6. EUROSTAT, R&D Expenditure, http://ec.europa.eu/eurostat/statistics-explained/index.php/R_%26_D_expenditure (access 09.08.2015)
7. Goel, R. K., Payne, J. E. and Ram, R. (2008). R&D expenditures and U.S. economic growth, Journal of Policy Modeling. 30 (208), 237-250
8. Innovation Strategy, 2013, http://fondzainovacii.mk/wp-content/uploads/2014/05/Strategija-za-inovacii_final_oktomvri2012.pdf (access 09.05.2015)
9. Innovation Union Scoreboard 2015, http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/files/ius-2015_en.pdf (accessed 20.08.2015)
10. Lee, Y. S. (2000). The Sustainability of University-Industry Research Collaboration: an Empirical Assessment. Journal of Technology Transfer. 25, pp. 111-133
11. Nooteboom, B. (2000). Institutions and Forms of Co-ordination in Innovation Systems. Organization Studies. 21/5, 915-939
12. OECD. (2011) The Former Yugoslav Republic of Macedonia: Review of the National Innovation System. OECD Development Center, Paris
13. Parham, D.(2007). Empirical analysis of the effects of R&D on productivity: Implications for productivity measurement?, Productivity Commission. Australia
14. Perkušić et al. (2012). Fostering innovations on faculties and need of connecting them to the business sector, Second REDETE Conference. Banja Luka. BiH
15. Radas, S. (2005). Economic Trends and Economic Policy. No. 102, 2005, pp. 60-80
16. Report on Research & development activity, http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=40 (access 10.08.2015)
17. Romer, P. M. (1994). The Origins of Endogenous Growth, The Journal of Economic Perspectives, Vol. 8, No. 1, pp.3-22
18. Švarc, J. (2014). “Is the Triple Helix model relevant for innovations in WBC?”. published in “R&D and Innovation in Western Balkans, Moving Toward 2020”, WBC-INCO.NET c/o ZSI – Centre for Social Innovation.

19. Sveikauskas, L. (2007). “R&D and Productivity Growth: A Review of the Literature” Bureau of Labor Statistics Working Paper 408
20. WEF Report, Collaborative Innovation Transforming Business, Driving Growth. (2015). http://www3.weforum.org/docs/WEF_Collaborative_Innovation_report_2015.pdf (access 20.08.2015)
21. Western Balkans Regional R&D Strategy for Innovation, 2013, http://www.worldbank.org/content/dam/Worldbank/document/eca/Western-Balkans-R%26D-Strategy-Innovation.pdf (access 10.08.2015)
22. World Development Indicators (WDI), http://data.worldbank.org/data-catalog/world-development-indicators (access 15.08.2015)

ROMANIAN ENTREPRENEURS IN THE FIELD OF RENEWABLE ENERGY AND ENERGY EFFICIENCY

Evelina GRĂDINARU[333]

Abstract

Climate changes have ceased to be, for quite some time, just a curiosity or just an environmental and settlement issue. Nowadays we are talking about a real crisis that develops along with the economy, health, safety, food production and many other dimensions of our life.

At the same time, the supply of renewable energy along with the implementation of the concept of energy efficiency have greatly expanded and are reaching in present days the fastest growth rhythm in the last 10 to 15 years.

Considering the preoccupation for renewable energy, and as a consequence, for sustainable development, has seen major changes in the emerging economies but also in the entire world, this present paper intends to make a study of sustainable development through the usage of renewable energy and energy efficiency, which is a constant preoccupation for the 21st century entrepreneur.

From this point of view, Romania represents a very attractive emerging economy, if we are to look at the massive investments that have been made from 2011 in the renewable energy field, and through its state given subsidies schemes, contributed to the gross turnover and profits made by foreign companies that have invested until now.

Romania has also an economy that still supports the injection of massive amounts of capital while European environmental protection policies and the reduction of pollution are mandatory. Being an emerging economy, there are some other advantages worth mentioning: relatively low labor, operation and maintenance costs, a sufficient developed and expanding infrastructure and logistics, and also a very powerful educational tradition.

That being said, we can conclude that there are numerous arguments to sustain the necessity of a paper of this kind. It includes a brief presentation of the economic and legal framework in the renewable energy and energy efficiency field, a case study on a group of romanian-german companies that invested in the photovoltaic field in Romania, bringing foreign capital for both large and small investments which encouraged the development of entrepreneurs, and a marketing research also made with the aid of some romanian entrepreneurs that saw a great opportunity in the sustainable development concept. The latter consists of a qualitative research on the opinion of local entrepreneurs on the importance and need for sustainable development. Using all the help they could get from the state, they are the ones that have constructed small sustainable businesses and contributed to the overall development of Romania but also to the preservation of the environment for future generations.

Keywords: *environment, energy, efficiency, renewable, sustainable*

[333] *Transilvania University from Brașov, Romania, Eroilor Street, No. 29, Brașov, Romania, email: evelina.gradinaru@unitbv.ro*

1. Theoretical aspects regarding entrepreneurship and emerging economies

Over time it was found that small businesses, although characterized by a small number of employees, are the ones that create more jobs in an economy. They also favor an increasingly competitive environment and offer various opportunities and advantages that cannot be obtained otherwise.

Entrepreneurship is considered a "development engine" (Frunzăverde et all, 2005) in that it takes the risks and the responsibilities of a business. By the 1800s, French economist JB Say affirmed that the entrepreneur is the one that "takes the economic resources out of an environment with low productivity and introduces them in a field with different productivity and greater efficiency" (Crețoiu Gh, 2007).

Referring to transition economies, Baumol (1990), believed that entrepreneurship includes an "attack of rapid changes and uncertainty", a broad range of opportunities that involve restructuring of previously planned economies, unbalanced supply and demand, fragile institutions and a variety of informal rules and behaviors that are reminiscent of the communist past. However, although we are talking about many imbalances, in some domains, like education for example, investment in local technologies was similar to that of the developed world.
(Estrin Meyer, 2006, p.5).

The transition from a planned to a free market economy implied an important relocation of resources, a shift from industry to services, from a domestic to a worldwide market, from intermediate products to finished goods. Planned economies were “over-industrialized”, meaning that the share of industry in GDP was often in the 45-50% range as against less than 30% in developed market economies and output was focused to the manufacture of intermediary products.

Moreover, although most communist countries were small, they had no opening in terms of trade with western countries, focusing only on the communist bloc. So the reforms that took place meant more opportunities in services and international trade. One might expect this reallocation to be spearheaded by existing firms rather than entrepreneurial ones. However, existing firms were themselves institutions of planning, and therefore part of the problem rather than its solution. It was hoped that the sharper incentives and improved governance would follow privatization, but this was everywhere a major and lengthy project and in the interim, new firms would have to play a disproportionate role.

New firms (usually very small), have oriented to niches in consulting, logistics, business services. (see Lizal and Svejnar 2002).

Schumpeter, the austrian-american economist, formulated the theory of long business cycles and economic growth, seen as a result of innovation, consisting in generating new ideas and applying them through a new service that contributes to a dynamic growth of the national economy, increase in occupied labor face and net profit for innovative firms. (Schumpeter A. J., 2006)

A considerable shift to an economy based on entrepreneurship took place between mid-1970s and early 1990s, through a change in industry structure, the main share of activity going from large to small and medium enterprises. Increasing the number of SMEs, the share of outsourcing in the business of large companies, represents a reaction to the growing dependence of flexibility, of knowledge as an input, driven by technological changes and intensified global competition. Smaller firms seem to be better suited to meet the conditions of increasing globalization, this showing greater predisposition to innovation and regarded as a "remarkable vehicle for channeling the entrepreneurial ambitions of individuals" (Audretsch et all, 2001).

Considering the emerging and clean-energy economies there can be solved two sets of problems as they have the potential to drive innovation and stimulate a sustainable economic recovery that changes the environmental harmful „business as usual" which were practiced in the past. Were most people see problems, innovators in green business see oppportunities. A wave of companies both large and small is successfully using this business to achieve social and environmental change.

These models of business aim to preserve the environment, promote social equity, and stimulate sustainable economic growth. Considering they gain increasing media attention, secure investments and acquire market share with innovative business solutions to social and environmental issues, they could be considered real leaders.

Innovators in sustainable development create new products and services designed specifically to solve the problem of the collision between economic growth, increasing population and a consequently increase in resource consumption. They are looking for integrated solutions that offer financial benefits, environmental protection and improved individual health, all meant to contribute to a thriving community.

Sustainable development started to grow between the 1980s and the 1990s, representing a wave of creativity driven by a growing population of entrepreneurs, individual or in groups (ventures). This form of creativity is applyable both in terms of selection of raw materials, energy consumption and product design creativity but also in the strategies of companies activating in supply chains.

Today's tough economic times and the need for job creation apparently requires a derogation from the principles of environmental concerns. However, the importance of monitoring energy inputs of raw materials and waste in order to mitigate cost reducting measures, can be felt through sustainable objectives.

In addition, considering we are facing a growing environmental degradation, in along with economic development, it is unlikely that those companies based on sustainable development to be subdued and with a growing public interest in this matter they will be much better positioned should an economic crisis occur.

2. Challenges in the energy sector and opportunities for entrepreneurs. Case study - developed entrepreneurial initiatives in the city of Brasov

Given the economic globalization, a country's energy strategy is made considering global changes. It is estimated that the total energy demand will be about 50% bigger, whereas for oil will increase by 46% in 2030 compared to 2003 (considered as a reference year).

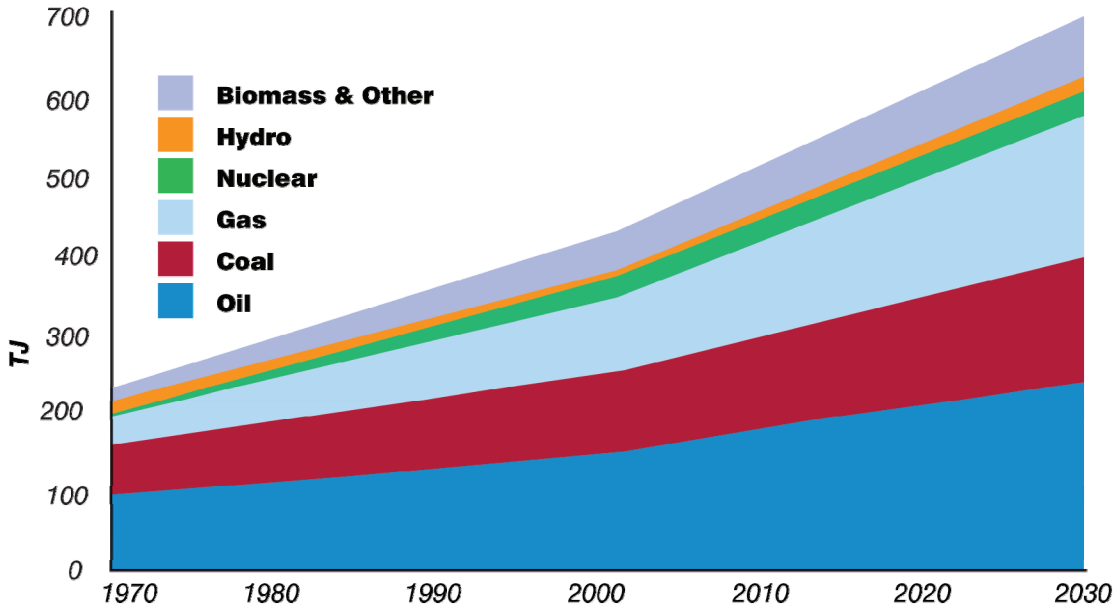


Figure1. World energy demand
Source: OECD/IEA World Energy Outlook 2004

Known and proven oil reserves can sustain such a consumption by 2040, natural gas by the year 2070, while world reserves of coal can ensure consumption for another 200 years. In other words, economic growth forecasts imply a higher consumption of energy resources.

Considering these aspects, one of the major challenges for the EU is represented by how energy security can be assured with competitive and clean energy, given the limitation of climate change, escalating energy demand and the uncertain future of access to energy resources. This has become the highest priority for the EU committing to a series of targets to be achieved by 2020, known as "20-20-20 objectives" (updated energy strategy, p8): reduced GHG emissions in the UE with at least 20% compared to 1990, increasing by 20% the contribution of renewable energy sources in the EU's overall energy consumption and a 20% reduction in primary energy consumption to be achieved by significant improvements in energy efficiency.

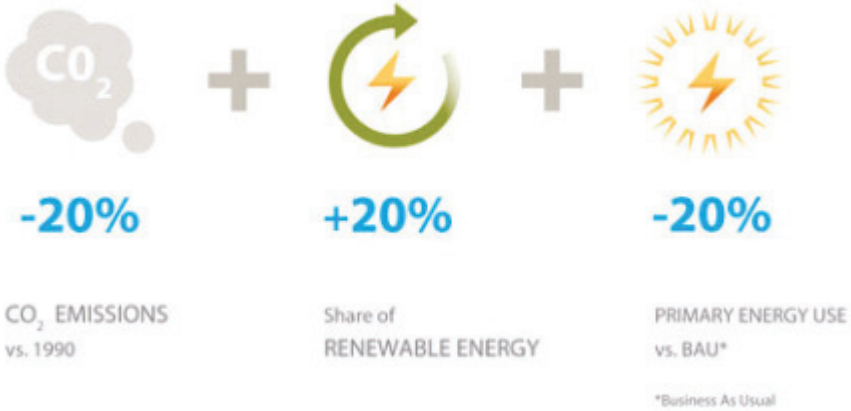


Figure2. Europe's 20-20-20 energy label
Source: http://www.daikinme.com/

Companies activating in the industrial sector, but also in other areas, could use energy efficiency as a business strategy for improving their own competitiveness and also contribute to the

preservation of the environment. Nevertheless, the barriers in the path of energy efficiency continue to be represented by financial, technical, behavioral and organizational issues. Therefore, many organizations do not consider energy efficiency as a priority in comparison with other business investments, and often remain at the state of unimplemented ideas.

Considering the above mentioned aspects, which lead to massive investments in renewable energy, it is important to mention that Romania is interesting, not only from the point of view of the energy produced with renewables, but also from that of the important potential of energy efficiency itself, which brings significant advantages in every field, industrial, administrative or residential. It is important to mention that starting from 2014, state and EU subsidies schemes are being focused on this particular aspect.

Planul de Actiune privind Energia Durabila - PAED (Romanian for Sustainable Energy Action Plan) is the document that materializes the above mentioned objectives for Romania and requires commitment assumed by local authorities with regard to the measures in their sphere of responsibility or intervention. It is expected that local authorities play an exemplary role in terms of measures taken in their own buildings and facilities, auto fleet, the production of renewable energy, urban mobility, etc.

The city of Brasov, the 8th biggest city of Romania, located in the center-east of the country, ranked as a second category city, and growth pole in the development Region 7 Centre, is one of those who have committed to the PAED. It is important to note that these regions of development were created in 1998 by the association of county councils in Romania to facilitate the coordination of regional development, considering our country's accession to the EU. Brasov is the most competitive city in terms of GDP / capita and labor productivity.

Brasov's initiatives in achieving sustainable development objectives are focused on the following areas of intervention: buildings and installations, public transport, central heating, local energy production, urban planning, acquisitions, communication and waste management.

The fulfillment of these objectives have already led, and continue to do so, to the emergence of new economic opportunities by expanding research and entrepreneurial activities in the field of low carbon technologies through the creation of green jobs.

The following paragraphs present such entrepreneurial initiatives at Brasov, which led so far to achieving the above mentioned objectives and sustainable economic growth of the city.

With regard to local energy production, it should be noted that in the period 2011-2014 were developed numerous projects of photovoltaic parks that materialized in the construction and commissioning of a total energy capacity of approximately 80 MW, in the entire county of Brasov, most of which was built with foreign capital, the investments in this field being very consistent given we are talking about a developing country. The benefits for the local community, and also for Romania, are numerous. In addition to offering sustainable development, by injecting electricity in the National Power System, are being achieved the objectives set at the European level on the use of renewable energy sources. Moreover, jobs are being created locally; entrepreneurs are being created and developed in the field of consulting, engineering and security systems, contributing to the economic growth of the region.

In light of the above, it was considered interesting to analyze the evolution of an entrepreneur in the renewable energy field from Brasov who had an important contribution to the above mentioned results, Alpin Sun Group.

Figure3. Codlea (BV) photovoltaic park
Source: http://www.alpin-sun.de/

This entrepreneur brings together a group of Romanian - German societies, specialized in photovoltaic power plants. The foundations were laid in 2005 and it has experienced a great evolution in recent years, by following several stages of development, starting by assembling plants and, later, encompassing the design and supplying of equipment, which is called the EPC. The next step towards the ascension of Alpin Sun activity was embedding project development activities and, later, the operation and maintenance of photovoltaic parks. Since its debut and up to now, Alpin Sun has completed more than 180 photovoltaic plants in Italy, Belgium, Germany and Romania. The most representative projects were conducted between 2012-2014 in Romania, totaling 34 MW, consisted by utility scale projects with an installed capacity ranging between 1.5 MW and 7 MW. During this period, Alpin Sun has been very active on the development side, making up to now, more than 15 fully licensed projects, totaling over 70 MW installed capacity. Some of these projects were sold to investors, along with EPC contracts, which constitute a part of the working basis of the company and a good source of cash. In order to streamline the operations, the Romanian society, Alpin Solar SA, was founded, taking over the Engineering and Construction activity, with over 100 employees in Romania, while the German Society still remains responsible for acquisitions and international contracts. Its own developed projects are carried out through project companies (SPV), according to the Romanian legislation, regulations related to the establishment and operation of electricity producers and specific commercial usage.

This process of development of the Alpin Sun Group created opportunities for industrialists in the county of Brasov, generating demand in the field of security systems for the built parks, consultancy for obtaining the necessary credentials for accessing European funds, maintenance, etc.

In terms of projects for energy efficiency created in the city of Brasov, it was considered interesting to be mentioned in this paper, "MOBI", as a successfully implemented project and continuously sustained by the group of companies mentioned above, subject of the case study. This project of urban planning and transport, which is currently being carried out (the period of implementation is 2013-2016), encourages travel to work using sustainable means of transport like cycling, walking, using public transport, and is called "Promoting Smart Mobility to Employees". It is co-funded by Intelligent Energy Europe program of the European Commission and is simultaneously conducted in 6 European countries (Romania, Bulgaria, the Netherlands, Belgium, Portugal, United Kingdom and Northern Ireland). The project benefits from a European funding level of a total of 1 million euros, Romania’s share being of 45,000 euro, the costs being supported 75% by the European Commission and 25% by partners such as the Agency for Energy Management and Environmental Protection Brasov.

3. Qualitative research on the opinion of the Brasov entrepreneurs in renewable energy and energy efficiency regarding the importance of sustainable development for Brasov County

3.1. Research Methodology

Exploratory research is designed to identify and define a number of aspects which characterize the problem being investigated, geared towards obtaining a large volume of information in the form of detailed information on the topic being studied.

For this reason, given the researched topic, namely the importance of sustainable development for Brasov County, and also for Romania as an emerging country, we considered conducting such a research in the form of group interviews among entrepreneurs from Brasov, which was entitled "The opinion of local entrepreneurs on the importance and need for sustainable development". The research consisted of interviews with 2 groups, each consisting of 6 members, dichotomized based on: sex, position and area of activity, each meeting lasted 90 minutes.

The research was aimed at identifying the opinion of respondents regarding the importance of sustainable development for an economy in general, how important was for their business the focus on sustainable energy and energetic efficiency, and development plans for the future (for Brasov and generally for Romania)

The selection questionnaire was implemented after a face to face interview with entrepreneurs, 24 interviews being made with people from the targeted population, arriving to 12 candidates and 3 reserves, which met all selection criteria imposed by the parties and confirmed their participation during the interview. It should be noted also that members who were included in the sample were later interviewed using the same questionnaire and face to face interview method in order to eliminate potential problems that may appear in a qualitative research, and to verify the veridicity and validity of the information contained in the database of the researcher.

The technique of "warming" was used, due to the specificity of the groups being interviewed, given that it is recommended especially when creativity techniques are used, such as "brainstorming" and "synectics", sometimes even in the "Delphi" technique.

3.2. Research results and discussions

The above mentioned qualitative research provided answers to most of the topics on the agenda. Firstly, it has been identified the perception of respondents regarding the importance of sustainable development in business, where respondents consider that in the near future we will reach an increasing environmental degradation, along with economic growth. Public interest is increasingly oriented in this direction, meaning that in the years of economic crisis, entrepreneurs who rely on sustainable development will be much better positioned with real chances of sustaining and even increasing their business.

It was also discovered in this area a need for long-term predictability in order to make investments, and unfortunately in Romania the authorities often take hasty decisions that affect the plans of most entrepreneurs.

Secondly, in terms of their activity, most respondents said they started as entrepreneurs with the support measures granted by the state for renewable energy producers. This meant the entry of large foreign investors in the country, as this type of business involves large sums available and long investment recovery time, who sought labor from Romania, thinking in terms of advantages

with regard to cheap labor force etc. Also, most respondents consisting of entrepreneurs with a significant number of employees responded that the latter are also motivated by idea of sustainable development and that they enjoy contributing to this.

Regarding future plans, the entrepreneurs surveyed are focusing on benefiting from support schemes for energy efficiency, business development, and collaboration with local authorities (which in turn are supported to encourage sustainable development of communities), entrepreneurial orientation towards investments in energy efficiency with the aid of ESCO companies, or their orientation towards becoming themselves ESCO companies. An ESCO company provides integrated solutions for obtaining lower energy costs, and is remunerated based on the performance of the solutions being implemented.

They also consider that the liberalization of the electricity market brings Romania once again in the interest of foreign investors, meaning opportunities for Romanian entrepreneurs in creating joint ventures, considering the advantages they hold, i.e. the know-how of the internal market mechanisms.

4. Conclusions and proposals

Romania is one of the developing countries with huge a potential in terms of investments in renewable energy and energy efficiency considering both its natural resources and the support schemes granted to the country as a EU member. These two important aspects contribute to the development of small sustainable businesses that in turn generate sustainable economic growth, a very important characteristic nowadays.

Regarding the case study analyzed, namely, the group of companies with foreign and romanian capital, that generated by their investments in renewable energy, especially in Brasov county, the development of small entrepreneurs with highly specialized support activities in this field, it was considered appropriate the introduction of the concept of "cooperative". This system existed in Romania between the 2 world wars, and is successfully applied today in countries like Finland, Italy, Spain, being characterized by recognizing ownership, which means that those who associate are working for themselves.

A cooperative is different from a private enterprise by the fact that it is based on two principles: the social principle and economic principle; between these two there is always a balance. In a cooperative enterprise neither of these 2 concepts, economic – profit maximization – or social (in the expense of profit), dominate.

Entrepreneurs are the main creators of jobs, so it is considered necessary for Romania to stabilize its legislation on support measures in renewable energy and energy efficiency, so that either small or big investors can build their development strategy based on a long-term forecast, and help our country to experience an economic growth based on sustainable development

Acknowledgements

This work was supported by the project “Interdisciplinary excellence in doctoral scientific research in Romania - EXCELLENTIA” co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/187/1.5/S/155425.

References

1. Caree, M., Thurik A. R. (2003). „*The Impact of Entrepreneurship on Economic Growth*". International Handbook of Entrepreneurship Research, pp. 585-588
2. Crețoiu Gh. (2007). *"Political Economy"*, Titu Maiorescu University, pp. 31
3. *Entrepreneurship theories and Empirical research: A summary Review of the Literature (2011), European Journal of Business and Management*, available at: www.iiste.org (accessed 01.05.2015)
4. Estrin S., Meyer K., Bytchkova M. (2005), *"Entrepreneurship in Transition Economies"*, paper written as a chapter in *"The Oxford Handbook of Entrepreneurship"*, p. 5
5. Frunzăverde D., Irimia H., Rîndaşu V. (2005), *"Entrepreneurship: teory and practice"*, Mirton Timisoara, pp. 13-14
6. International Energy Agency, *World Energy Outlook 2004*, available at: http://www.worldenergyoutlook.org/media/weowebsite/2008-1994/weo2004.pdf (accessed 02.07.2015)
7. Lefter, C. (2004), *„Marketing research"*, *Infomarket*, pp. 48-54
8. Lizal, L., Svejnar, J. (2002): *Investment, Credit Rationing, and the Soft Budget*
9. *Constraint: Evidence from Czech Panel Data. The Review of Economics and Statistics*, p. 353-370.
10. Million J. C. (2009), *"Small Business Administration"*, Series *"European Entrepreneurship Education*", pp. 140-143
11. Schumpeter A. J. (2006), *History of Economic Analisys*, Taylor & Francis e-Library, pp. 548-657
12. *Sustainability, Innovation and Entrepreneurship, "Sustainability Innovation in Business"*, available at:
13. http://www.saylor.org/site/textbooks/Sustainability,%20Innovation,%20and%20Entrepreneurship.pdf (accessed 15.06.2015)
14. *Ten Green Business Ideas for new Entrepreneurs, available at:* http://greenforall.org.s3.amazonaws.com/pdf/cap/10%20Green%20Business%20Ideas.pdf (accessed 17.06.2015)
15. www.daikinme.com
16. www.alpin-sun.de

INNOVATION AS DETERMINANT OF ECONOMIC DEVELOPMENT - EXAMPLE OF SEE COUNTRIES

Milorad Filipović, Associate Professor[334]

PhD Miroljub Nikolić, Senior researcher[335]

Msc Jovan Filipović, Junior researcher[336]

Abstract

The most developed countries in the world economy today are also the most innovative ones. A number of analyses have shown that increased innovation level of some country leads to higher level of competitivness on the world market, and allows this country to create products of higher added value. These countries have sustainable and high growth rates, are more resistant to economic crisis, and attract a lot of investment in high technology branches. Structural changes happening in innovative countries lead them toward highly efficient economy, with increased role of sophisticated services and lower intensity of energy and raw material consumption per unit of GDP. Unfortunately, SEE countries, which will be analyzed in this paper, are mostly in a group of mid-innovative nations in Global Innovation Index. Accordingly, the purpose of this paper is to analyze the importance of innovation for the economic development of 11 Southeast European (SEE) countries (Albania, Bosnia and Hercegovina, Bulgaria, Croatia, Greece, FYRO Macedonia, Moldova, Montenegro, Romania, Serbia, and Turkey). The implicit hypothesis of this paper relies on investigating sustainability of development model of the analysed SEE countries. This approach is based on permanent investment and development innovation. In order to test the relationship between innovation and economic prosperity, as measured by GDP per capita, the paper interprets results of econometric models for all SEE countries, and explains the importance of innovation, as a key to economic development of SEE countries. The paper analyzes innovation level of SEE countries, and, given a relatively low share of innovative investment, explains importance of innovation for the economic development of these countries. This relation could be one of the most important explanations why most of these countries are still in the transition process and lag behind successful CEE group. Lack of innovation leads to production of traditional products with very low level of value added, connected with problems in marketing of those products, so that countries remain deeply stuck in underdevelopment position.

Key words: *SEE countries, economic development, innovation*

[334] University Belgrade, Faculty of Economics, Department of Economic Policy and Development, miloradf@ekof.bg.ac.rs

[335] Ministry of Economy, Department for Regional Development and Strategic Analysis of the Economy, miroljubnk@gmail.com

[336] Deloitte d.o.o., Belgrade, Audit Division
jofilipovic@deloittece.com

Introduction

Southeast European countries, though geographically contiguous, differ according to the achieved level of economic development, economic growth, competitiveness, and innovation. Of the 11 countries of Southeast Europe, four countries are full members of the European Union (Greece, Romania, Bulgaria, and Croatia), and the rest are in various stages of the accession process to the European Union, which is reflected in the level of their economic development, innovation, and the economic growth rate. As these are the countries with great development problems, structural imbalance, competitive deficit, and innovation gap, they were significantly affected by the economic crisis, from which some have not recovered yet (for example, Greece and Serbia), or their growth is significantly slowed, compared to the pre-crisis period. Innovation gap of Southeast European countries, in relation to the most developed countries, is one of the most important development constraints, as insufficient innovation level prevents them from significantly improving productivity and overall competitiveness, as the basis for dynamic and sustainable growth. Under conditions of low innovation, these economies are condemned to economic stagnation and slow transition to a knowledge-based society, characterized by higher levels of income, higher employment, and welfare of the greatest number of people.

The economic development of Southeast European countries

Southeast European countries differ according to the achieved level of development. The most developed country of Southeastern Europe, based on GDP per capita, is Greece (22,318 USD in 2014), followed by Croatia (13,624 USD), Turkey (10,518 USD), and Romania (10,161 USD), which are also the countries that are above the average of 11 Southeast European countries (8,627 USD), judging by development. The least developed country of Southeast Europe is Moldova (2,176 USD), and the bottom positions also belong to Albania (4,900 USD) and Bosnia and Herzegovina (4,905 USD), while the situation is slightly more favorable in Macedonia (5,262 USD), Serbia (5,924 USD), Montenegro (7,466 USD), and Bulgaria (7,648 USD).

Previous analysis has shown that, within the countries of Southeast Europe, the most developed countries are members of the European Union (this does apply only to Turkey, which is not in the EU, and Bulgaria, which lags behind the leading countries). Furthermore, based on the economic development, Serbia is somewhere in the middle of the observed group of countries, but it is far behind the leading countries and the Southeast European average. What is more, there is a big difference in development (10.3:1) between the most developed Greece and least developed Moldova.

Table 1: Southeast European countries, according to their level of economic development

Levels of economic development	Stage 1	Transition from 1 to 2	Stage 2	Transition from 2 to 3	Stage 3
	Factor-driven economy		Efficiency-driven economy		Innovation-driven economy
GDP per capita (in USD)	Up to 2.000	2.000-3.000	3.000-9.000	9.000-17.000	Over 17.000
		Moldova	Albania BiH Bulgaria Macedonia Montenegro Romania Serbia	Croatia Turkey	Greece

Source: Authors, based on the World Bank data

In respect of the level of GDP per capita, most Southeast European countries (Albania, Bosnia and Herzegovina, Bulgaria, Macedonia, Montenegro, Romania, and Serbia) are in the second stage

of development, where competitiveness mostly relies on efficiency-driven economy. Of the eleven countries observed, Moldova is in the group of countries in transition from the first stage of development (competitiveness is mostly based on the basic factors) to the second stage, while Croatia and Turkey are in transition from the second to the third stage (competitiveness is increasingly based on innovation factors and business complexity, and less on basic factors), where there is Greece already.

Table 2: Development of Southeast European countries in the period from 2007 to 2014 (GDP per capita in USD)

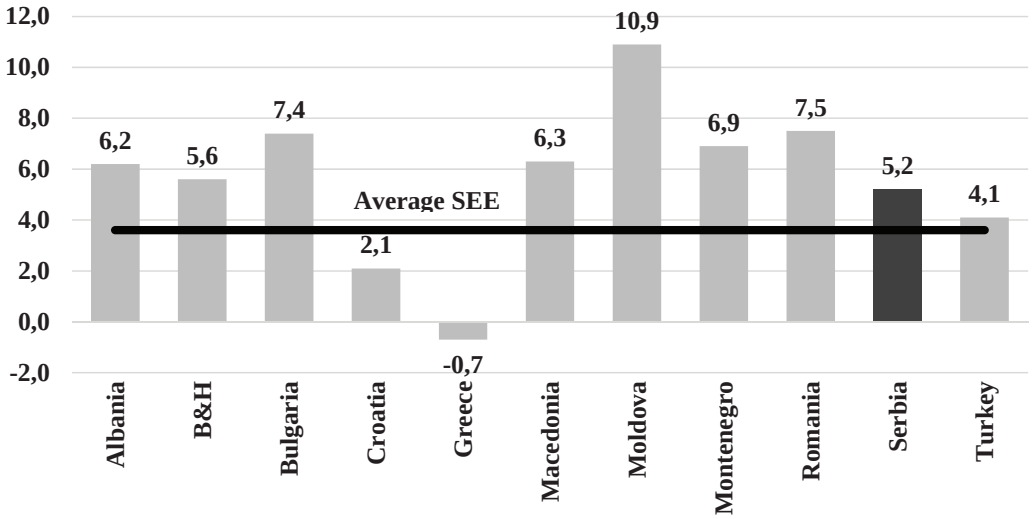
	2007	2010	2011	2012	2013	2014	yoy 2013/14	AAGR 2007/14
Albania	3.621	4.078	4.460	4.321	4.565	4.900	7,3	6,2
Bosnia and Herzegovina	3.912	4.323	4.709	4.353	4.620	4.905	6,2	5,6
Bulgaria	5.520	6.374	7.312	7.049	7.328	7.648	4,4	7,4
Croatia	13.782	13.742	14.378	13.077	13.401	13.624	1,7	2,1
Greece	27.448	26.358	26.085	22.347	21.857	22.318	2,1	-0,7
Macedonia	3.998	4.552	5.122	4.638	4.931	5.262	6,7	6,3
Moldova	1.229	1.631	1.971	2.046	2.239	2.176	-2,8	10,9
Montenegro	5.965	6.649	7.252	6.511	7.112	7.466	5,0	6,9
Romania	7.923	7.683	8.584	7.929	8.874	10.161	14,5	7,5
Serbia	5.304	5.030	6.030	5.292	5.902	5.924	0,4	5,2
Turkey	9.206	10.021	10.476	10.531	10.721	10.518	-1,9	4,1
Region average	7.992	8.222	8.762	8.008	8.323	8.627	3,7	3,6

Source: Authors, based on the World Bank data

According to the International Monetary Fund, in the period from 2001 to 2008, Serbia increased GDP per capita by, on average, 23% per annum, at a rate faster than the Southeast European average (faster growth was achieved only by Moldova and Romania), which has contributed to bringing Serbia closer to the average development of the Southeast European countries. The global economic crisis led to economic decline in 2009 and 2010 (in SEE by an average of 6.3%), with the largest decline recorded in Serbia (11.9% on average).

In 2011, the Southeast European countries achieved a slight recovery (7% in SEE, 20% in Serbia), but, the following year, the Southeast European countries once again faced recession (decline by 9%, and, in Serbia, a decrease of 12%). After the 2012 economic decline, Southeast European countries recorded growth in 2013 and 2014 (an average of 3.8%). Serbia recorded growth as well (5.8%), with a significant slowdown in 2014, and the annual level of 0.5%, with the further decline predicted in 2015.

The fastest growth in the period 2007-2014 was realized in Moldova (10.9%), Romania (7.5%), and Bulgaria (7.4%). Serbia achieved an average growth of 5.2%, which is above the average of SEE, but was only better than the economic growth achieved by Croatia (2.1%) and Greece, which recorded a negative growth of 0.7% in the observed period.



Graph 1: Economic growth in the Southeast European countries in the period from 2007 to 2014 (AAGR GDP)
Source: Authors, based on the World Bank data

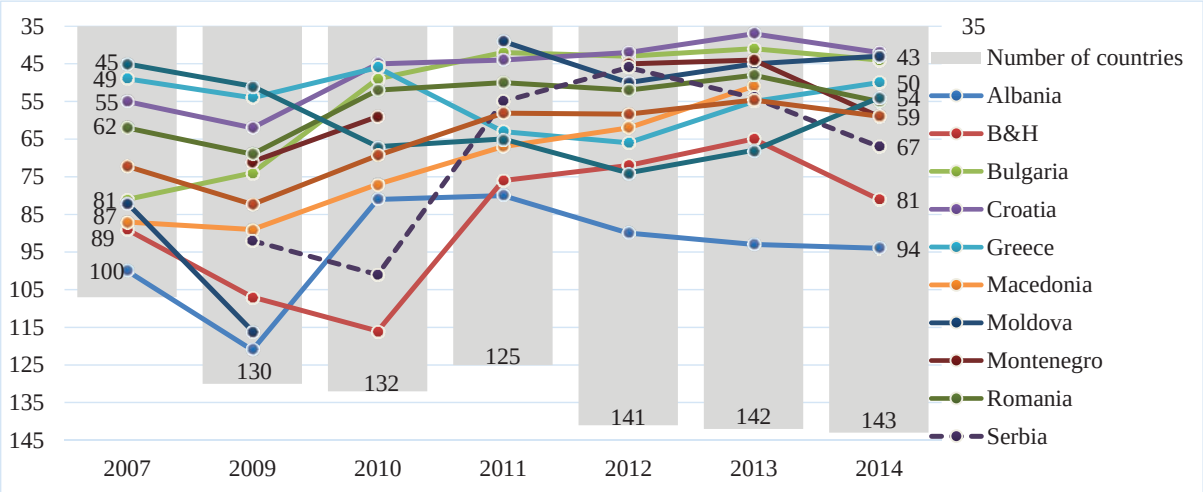
Innovation of Southeast European countries

Innovation plays a key role in the development of society and economy. Innovative economies are the most productive economies, because innovation allows for the creation of added value. Although the significance of innovation for economic development is not in question, measuring innovation is not easy, given a large number of factors. In order to measure innovation, composite indicators are increasingly being used, consisting of a large number of individual indicators. This confirms the complexity and multidisciplinary nature of innovation as a phenomenon.

Global Innovation Index, as a complex global indicator of innovation, which includes a large number of individual indicators of innovation, supersedes traditional ways of measuring innovation, based on individual indicators of innovation (for example, the level of research and development, the number of patents, the number of new products, etc.). Global Innovation Index assumes that innovation can be general, horizontal, and vertical in nature, and that it includes new business methods and models, marketing innovation, social innovation, process and user innovation, etc.

The methodology underlying the Global Innovation Index allows for comparing and ranking the different countries according to their innovation development, i.e. innovation capacity. This innovation indicator is designed to measure innovation in countries with different economic and innovation development, which is particularly useful for developing countries, wishing to rapidly improve their innovation and overall development, as is the case with the countries of Southeast Europe.

The achieved level of innovation of individual Southeast European countries can be assessed based on the value of the overall Global Innovation Index, as well as on the basis of the value of its individual components.



Graph 2: Innovation ranking of SEE countries, according to the Global Innovation Index
Source: Authors, based on the data taken from www.globalinnovationindex.org

Global Innovation Index allows clear, comparable, and comprehensive overview of the position of Serbia and 10 other countries in Southeast Europe, in relation to other countries in Europe and the world. Furthermore, Global Innovation Index helps in identifying areas that need to be significantly improved, in order to improve innovation in the observed countries to a greater extent (especially Serbia), as well as areas that are already relatively developed, and which should be further developed in order for Serbia to become an innovative leader in Southeast Europe, and the whole region one of the most innovative parts of Europe and the world.

Although this is an indicator of innovation, it also takes into consideration economic development level of observed countries. Accordingly, of the 11 surveyed countries of Southeast Europe, according to the World Bank classification, the majority records upper middle income level (Bulgaria, Bosnia and Herzegovina, Macedonia, Montenegro, Romania, Serbia, and Turkey), except Albania, which generates lower income levels, Moldova, which generates lower middle level, and Croatia and Greece, which record higher level of income. Taken as a whole, this is a European region which is at the rear of economic development, whose countries have major problems in reaching the average of underdeveloped countries of the European Union.

Table 3: Global innovation index – ranking of the selected countries by year

Ranking	**2007**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Income**
	1 - 107	**1 - 130**	**1 - 132**	**1 - 125**	**1 - 141**	**1 - 142**	**1 - 143**	
Albania	100	121	81	80	90	93	94	Low
Bosnia and Herzegovina	89	107	116	76	72	65	81	Upper middle
Bulgaria	81	74	49	42	43	41	44	Upper middle
Croatia	55	62	45	44	42	37	42	High
Greece	49	54	46	63	66	55	50	High
Macedonia	87	89	77	67	62	51		Upper middle
Moldova	82	116		39	50	45	43	Lower middle
Montenegro		71	59		45	44	59	Upper middle
Romania	62	69	52	50	52	48	55	Upper middle
Serbia		92	101	55	46	54	67	Upper middle
Turkey	45	51	67	65	74	68	54	Upper middle
SEE average	72	82	69	58	58	55	59	

Source: Authors, based on the data taken from www.globalinnovationindex.org

Research on innovation through Global Innovation Index shows that SEE countries belong to

a group of least innovative European countries, and that there is a significant difference in innovation performance among them.

Table 3: Global Innovation Index – values

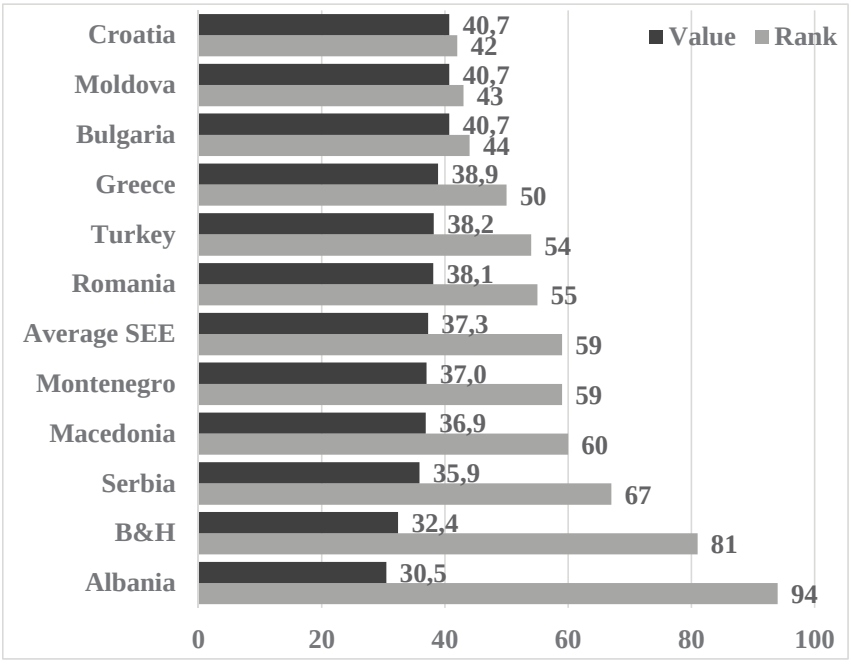
Value	2007	2009	2010	2011	2012	2013	2014	Income
	1-7	1-7	1-7	0-100	0-100	0-100	0-100	
Albania	1,78	2,11	2,86	30,45	30,4	30,85	30,47	Low
Bosnia and Herzegovina	2,05	2,3	2,58	30,84	34,2	36,24	32,43	Upper middle
Bulgaria	2,12	2,85	3,26	38,42	40,7	41,33	40,74	Upper middle
Croatia	2,59	3,03	3,28	37,98	40,7	41,95	40,75	High
Greece	2,69	3,17	3,28	34,18	35,3	37,71	38,95	High
Macedonia	2,06	2,6	2,89	33,47	36,2	38,18	36,93	Upper middle
Moldova	2,11	2,21		38,66	39,2	40,94	40,74	Lower middle
Montenegro		2,9	3,88	40	40,1	40,95	37,01	Upper middle
Romania	2,44	2,92	3,22	36,83	37,8	40,33	38,08	Upper middle
Serbia		2,57	2,68	36,31	40	37,87	35,89	Upper middle
Turkey	2,75	3,24	2,99	34,11	34,1	36,03	38,20	Upper middle
SEE region average	2,29	2,72	3,09	35,57	37,15	38,40	37,29	

Source: Authors, based on the data taken from www.globalinnovationindex.org

In 2014, five most innovative countries in the world, according to the Global Innovation Index, were from Europe: Switzerland (fourth consecutive year), Great Britain, Sweden, Finland, and the Netherlands. Compared to the year 2013, the United States are no longer among five most innovative countries (occupying the 6th place), and there is Finland again, being ranked fourth on the global innovation scale (6th place in 2013). Compared to 2013, Great Britain improved the innovative ranking (up from the third to the second place), whereas Sweden and the Netherlands went one place backwards, compared to the previous year.

Declining innovation and lower ranking of Serbia on the global innovation map continued in 2014. Serbian ranking on the global innovation scale deteriorated by 13 places, compared to 2013 (by 21 places, compared to the year 2012), which indicates the growing innovation gap and decline in competitiveness of the Serbian economy. As 67-ranked country of 143 observed in 2014, Serbia is at the European rear, judging by the development of innovation, lagging far behind the most developed European countries, but also the countries of Southeast Europe.

Low innovation of Serbia, in comparison to other countries of Southeast Europe, is also shown by the value of the Global Innovation Index, which was in 2014 significantly below the average of the countries of Southeast Europe. Out of SEE countries in 2014, Serbia (67th place) was ranked higher only than Albania (94th place) and Bosnia and Herzegovina (81st place), whereas lower than Croatia (42nd place), Moldova (43rd place), Bulgaria (44th place), Greece (50th place), Turkey (54th place), Romania (55th place), Montenegro (59th place), and Macedonia (60th place).



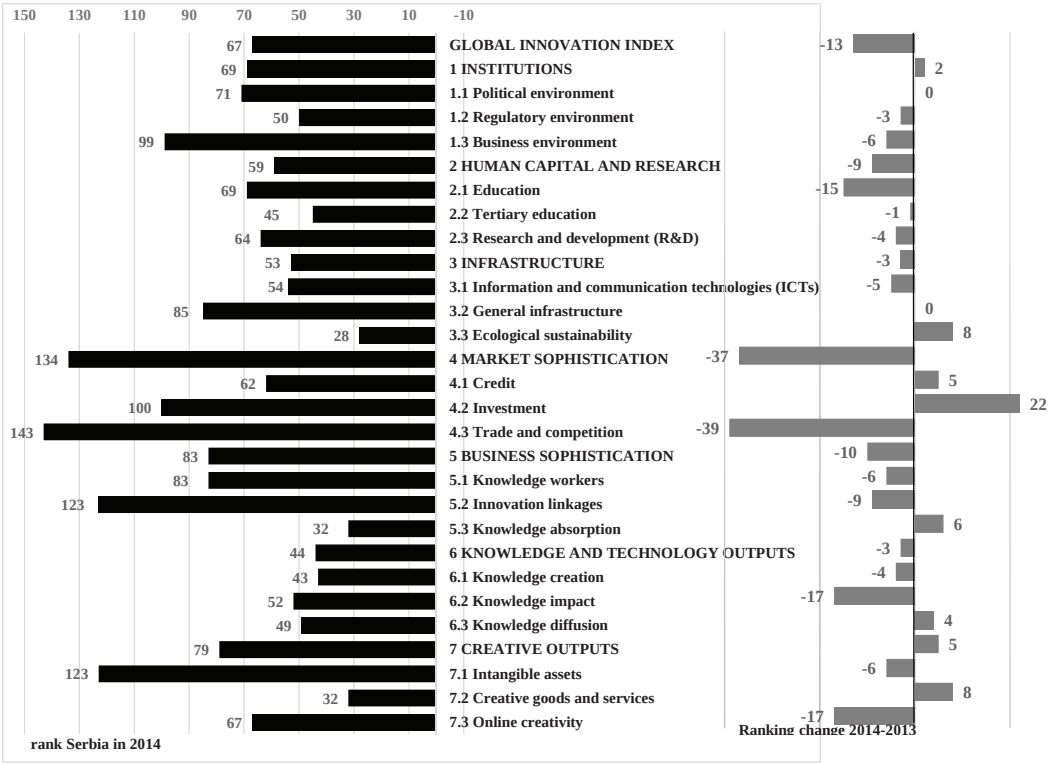
Graph 3: Innovation of Southeast European countries, based on the Global Competitiveness Index in 2014
Source: Authors, based on the data taken from www.globalinnovationindex.org

Table: Innovation of Southeast European countries, based on the Global Innovation Index and pillars of innovation in 2014

	Global Innovation Index		**Institutions**		**Human Capital and Research**		**Infrastructure**		**Market Sophistication**		**Business Sophistication**		**Knowledge and Technology Outputs**		**Creative Outputs**	
	Ranking	Value	Ranking	Value	Ranking	Value	Ranking	Value	Ranking	Value	Ranking	Value	Ranking	Value	Ranking	Value
Albania	94	30,5	79	58,8	93	22,8	79	34,1	21	61,9	115	24,90	111	20,2	123	20,6
Bosnia and Herzegovina	81	32,4	78	59,5	107	18,1	95	29,4	47	51,9	40	37,90	61	29,2	116	21,8
Bulgaria	44	40,7	48	68,5	61	31,2	47	42,7	97	44,2	53	35,10	38	36,2	45	38,1
Croatia	42	40,7	45	69,8	48	35,3	37	45,4	113	42,5	69	32,50	40	34,9	47	37,9
Greece	50	38,9	57	66,6	31	43,5	52	41,1	73	47,9	78	30,60	55	30,6	65	33,3
Macedonia	60	36,9	60	65,8	52	33,8	72	36,3	39	54,6	103	26,80	64	28,2	71	32,6
Moldova	43	40,7	80	58,4	71	28,6	88	31,9	49	51,4	102	26,80	26	40,8	32	43,3
Montenegro	59	37,0	51	68,1	37	40,7	78	34,2	53	50,6	58	34,40	109	20,9	57	35,9
Romania	55	38,1	59	65,9	69	29,1	50	41,7	108	42,9	99	27,30	37	36,6	67	33,0
Serbia	67	35,9	69	61,0	59	31,5	53	41,0	134	37,0	83	29,70	44	33,8	79	29,6
Turkey	54	38,2	92	54,9	54	33,3	75	35,6	63	49,1	110	25,40	48	32,3	40	41,2
SEE average	59	37,3	65	63,4	62	31,6	66	37,6	72	48,5	83	30,1	58	31,2	67	33,4

Source: Authors, based on the data taken from www.globalinnovationindex.org

In 2014, as compared to 2013, Serbian innovative performance deteriorated in respect of five, out of seven pillars that make up the Global Innovation Index. The largest drop in the global innovation ranking, by as many as 37 places, was recorded in respect of the pillar measuring Market Sophistication (down from the 97th to the 134th place). In addition to the aforementioned pillar, a drop in innovative performance was recorded with four pillars of innovation: Business Sophistication (down from the 73rd to the 83rd place), Human Capital and Research (a drop from the 50th to the 59th place), Infrastructure (down from the 50th to the 53rd place), and Knowledge and Technology Outputs (down from the 41st to the 44th place). Serbia's progress in fostering innovation was achieved only in two pillars: Creative Outputs (rise from the 84th to the 79th place) and Institutions (rise from the 71st to the 69th place).



Graph 4: Innovative ranking of Serbia, based on the Global Innovation Index in 2014, and the change of innovation, in comparison to 2013

Source: Authors, based on the data taken from www.globalinnovationindex.org

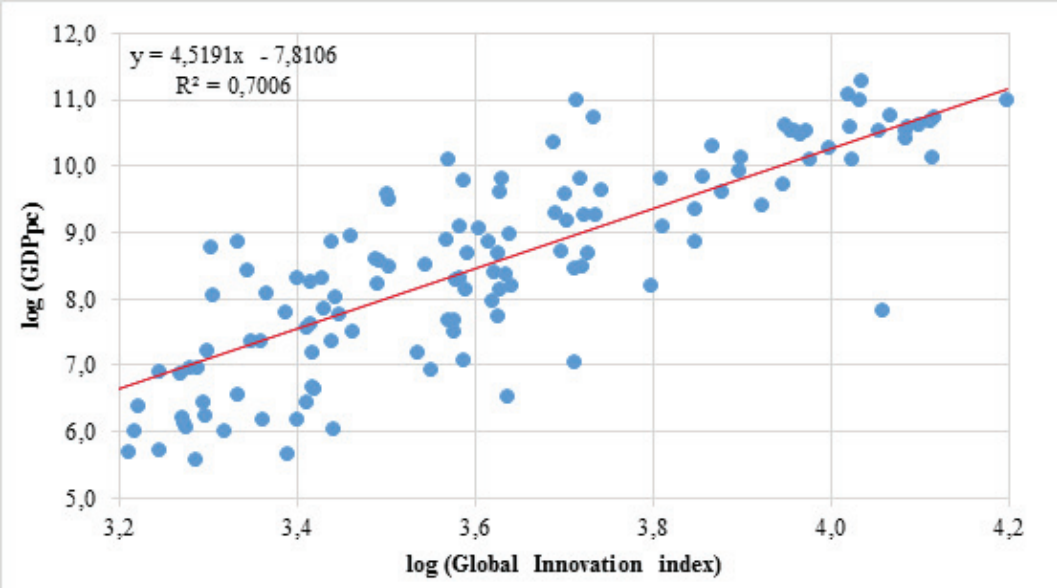
On the 2014 global innovation scale, Serbia was ranked best in the field of Environmental Sustainability (indicators: Impact on the Environment and ISO 14001 Environmental Management Systems). Furthermore, of the 81 individual indicators of innovation, Serbia is relatively well-ranked in respect of eight indicators: Cost of redundancy of employees, Ratio of students and teachers in secondary education, Export of IT services, Net inflow of foreign direct investment, Number of published scientific and research works, Introduction of ISO 9001 quality certificates, Registration of marks, and Cultural and creative industry export.

The biggest gap in the innovative development of Serbia is recorded as regards the pillar Market Sophistication, then in the fields: Trade and competition (for indicators: Intensity of local competition, Costs of market access of non-agricultural products), Innovative connection (for indicators: Development of clusters and Links between universities and the economy in the field of research), and Intangible assets (for indicators: ICT and the creation of business models and ICT and the creation of organizational models), as well as with four individual indicators of innovation: The ease of paying taxes, State funding per pupil in secondary education, Gross expenditure on research and development of the business sector, and Representation of the leading Internet domains.

The main conclusion of the analysis of Serbia's innovative development, based on the Global Innovation Index, in comparison to other countries in the world, above all, in relation to other countries of Southeast Europe, is that Serbia is, based on innovative development, at the European rear, being among the worst-ranked countries in Southeast Europe. Comparison and trend of individual innovation indicators in recent years indicates that the innovative potential in Serbia exists, but that it is underutilized, with inefficient management of innovative development factors. Therefore, it is necessary to change the current policy of overall and innovative development, and invest more efforts and resources (primarily human and financial) in the development of a strong innovation economy, as the basis of future dynamic and sustainable development, increased employment, and rising standards of living and quality of life in Serbia.

Correlation between innovation, level of economic development, and economic growth in Southeast Europe

Before we examine the impact of innovation on economic development within the sample comprising SEE countries, using a simple linear regression method, we will test the correlation between innovation and economic development in the world (142 countries). The aim of this study is to determine whether innovation is an essential factor of economic development in the case of all countries of the world. In the event that innovation significantly affects the economic development, the sample will be reduced to include only 11 SEE countries, and examine whether these countries as well base their development on innovation, or there are other factors, not covered by the survey.



Graph 5: Correlation of innovation with GDP per capita in 2014
Source: Authors, based on the WB data and the Global Innovation Index

The graph shows the logarithms of two variables, GDP per capita, on the Y-axis, and the GII, Global Innovation Index, on the X-axis, pointing to a strong linear correlation (the regression line in red) of GII and GDP per capita in respect of 142 observed countries. The choice of the logarithm transformation has resulted from the greater simplicity of the line of fit — the red straight line — compared to the curve that the original information would produce, as well as from the possibility to further understand the information arising from the data, by looking at the residuals.

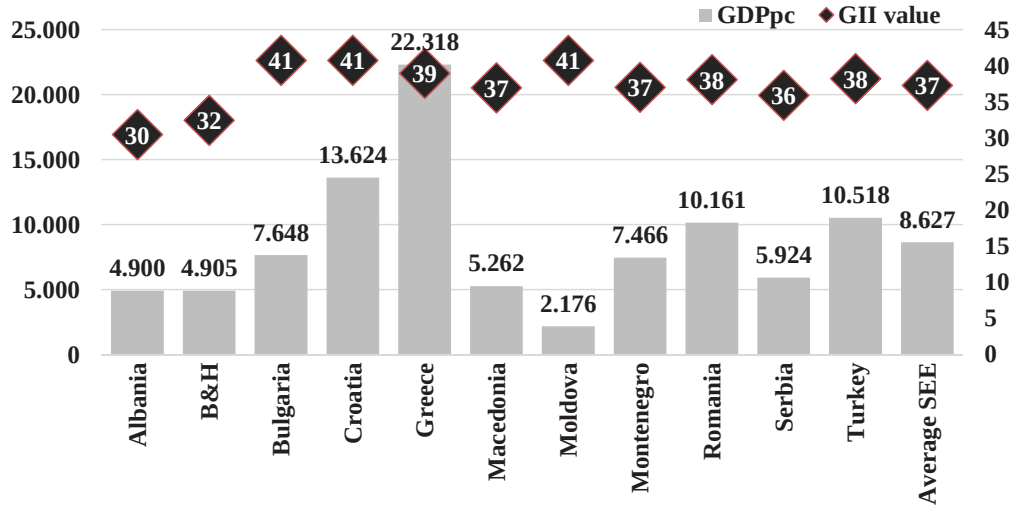
Compared to the same year's ranking, the correlation coefficient (R = 0.84) shows a stronger correlation between the two variables, which is also shown by the higher coefficient of determination (R^2 = 0.70), pointing to the fact that 70% of the variation of the GDP per capita is

explained by the variation of the innovation index. Higher coefficients are likely to be explained by the larger sample of countries under observation.

As noted in the comment to the ranking chart, high GDP per capita is recorded in countries that enjoy higher innovation indexes: when the latter grows by 100 units, the GDP per capita rises by 45 (slope measured from the logarithms; the slope of the corresponding raw values is 0.1%). Nevertheless, this does not tell the full story, otherwise the data dots would coincide exactly with the straight line, which is not the case here.

The analysis of residuals — a residual being the difference between the actual GDP per capita and the corresponding value of the line of fit — indicates some exceptions to the rule. One group of countries scores higher GDP per capita, than is the case with their innovation level. In descending order, the leading ten countries are: Iraq, Mauritania, Moldova, Central African Republic, Uganda, Malawi, Tajikistan, India, Vietnam, and Mali. All of these 10 countries have GII score below 50% of the median. Therefore, it can be concluded that comparatively less innovative countries may succeed in achieving relatively high GDP pc. At the opposite end, residuals expose the GDP pc performance of countries, whose high innovation level should justify higher scores, and these countries as Qatar, Brunei Darussalam, Algeria, United States, Venezuela, Gabon, Trinidad and Tobago, Kuwait, Oman, and Angola.

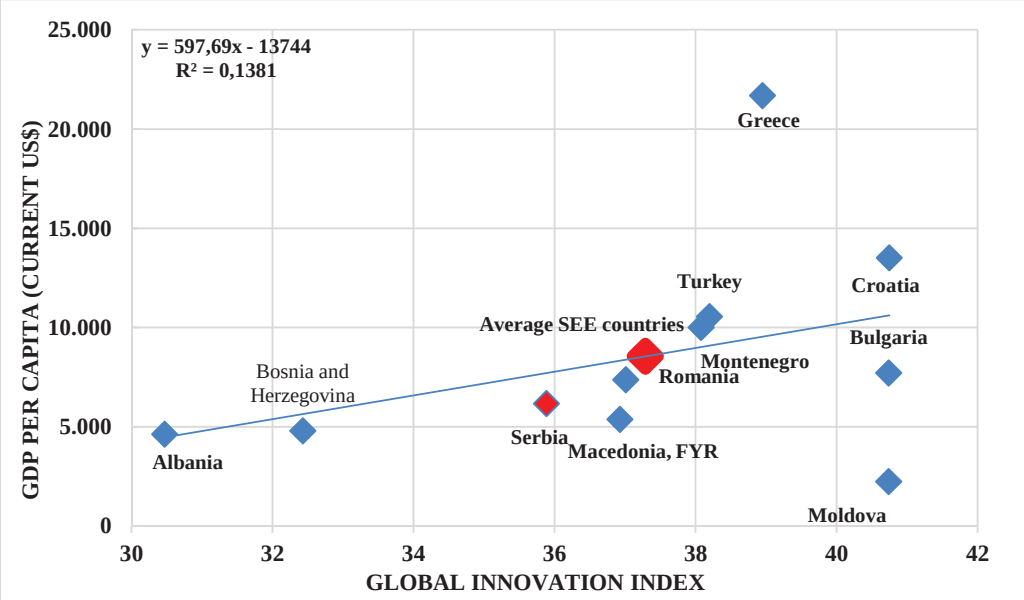
The correlation between innovation and economic development of the SEE countries is shown in Graph 6. Major economy in SEE is Greece, although it is not the most innovative one (Croatia, Bulgaria, and Moldova are more innovative). While Albania and Bosnia and Herzegovina lead to a clear conclusion that low economic development corresponds to low innovation, in respect of other SEE countries, such a conclusion cannot be drawn. For example, Moldova's economy is the most underdeveloped, but has the best innovation performance of all SEE countries. The situation is similar with Macedonia, whose level of innovation does not correspond to the achieved level of development. Accordingly, based on data visualization, it can be concluded that there is no clear link between innovation and the level of economic development, and that the most developed countries of SEE are not at the same time innovative leaders in the SEE region.



Graph 6: Economic development and innovation of SEE countries in 2014
Source: Authors, based on the WB data and the Global Innovation Index

Testing correlation between innovation and economic development of Southeast Europe, except for the method of visualization, relies on the method of regression and correlation analysis. Given that the focus of investigation is on mutual linear correlation between two variables, the simple linear regression and correlation analyses are used. Based on regression analysis, the relevant linear correlation between the variations of the observed indicators was identified.

Correlation analysis was used to explore the quantitative agreement between the variations of the observed indicators. Graph 7 presents the dispersion diagram and linear correlation between economic development, measured by *gross domestic product per capita*, expressed in current US dollars, and innovation, as measured by the *Global Competitiveness Index*, for the examined group of countries in 2014.



Graph 7: Dispersion diagram and linear correlation between economic development and innovation for the countries of South East Europe in 2014

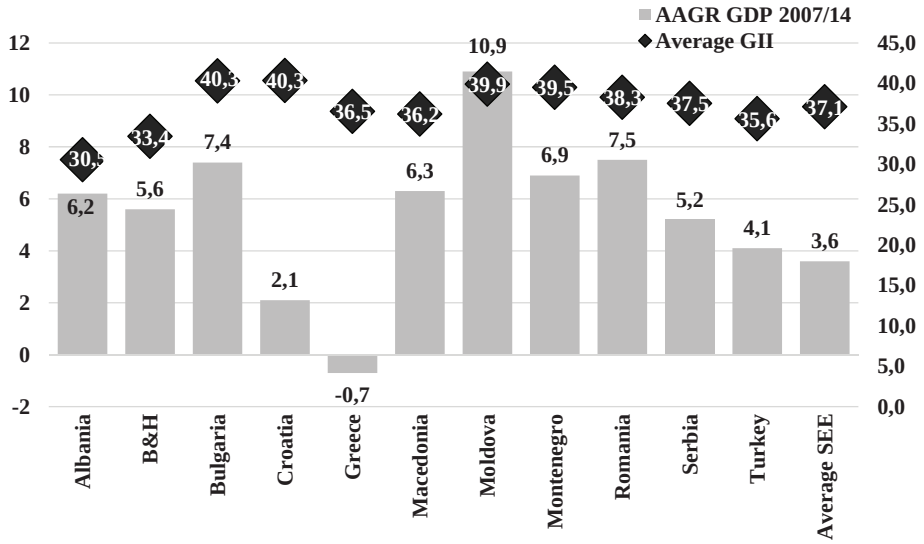
Source: Authors, based on the WB data and the Global Innovation Index

Graphic presentation of data pairs of variables GDP_{pc} and *Global Competitiveness Index* for the selected countries shows a very weak correlation between the variations of the observed variables. Adjusting the linear form of correlation and analysis of the components of the established model also indicates the previously set forth, visually perceived statement. In fact, linear regression function has the following form: y = 597,69X-13.743,8, with the statistics R^2=0,138 i R=0,371. The value of the coefficient of determination indicates that only 13.8% of the variations of the variable GDP_{pc} is explained by the variations in the *Global Innovation Index*, while the remaining 86.2% is the result of the influence of other factors, which are not included in this model. Weak correlation is also confirmed by the correlation coefficient of 0.371. Its value points to the existence of weak, direct (straight line extending from the lower left to the upper right corner of the graph) linear correlation between the observed variables in the countries included in the sample. The slope of the line (b_1 = 597.7) shows that the increase in Global Innovation Index by one measurement unit leads to an increase in GDP_{pc} by 597.7 US $. By testing the hypothesis on linear correlation of the observed variables, through the corresponding regression coefficient, the value of the test statistic of 1,266 is obtained. With a probability of test significance level of 0.05 and threshold test of 2.7764, it can also be concluded that there is no statistically significant linear correlation between the variables GDP_{pc} and *Global Competitiveness Index*.

The same conclusion is reached when the correlation between economic growth in Southeast Europe in the period 2011-2014 and their average innovation level in the same period is explored. Based on the methodology applied in the previous study, graphic visualization and simple linear regression and correlation analyses are used to examine the linear correlation between economic growth and innovation of economies in Southeast Europe.

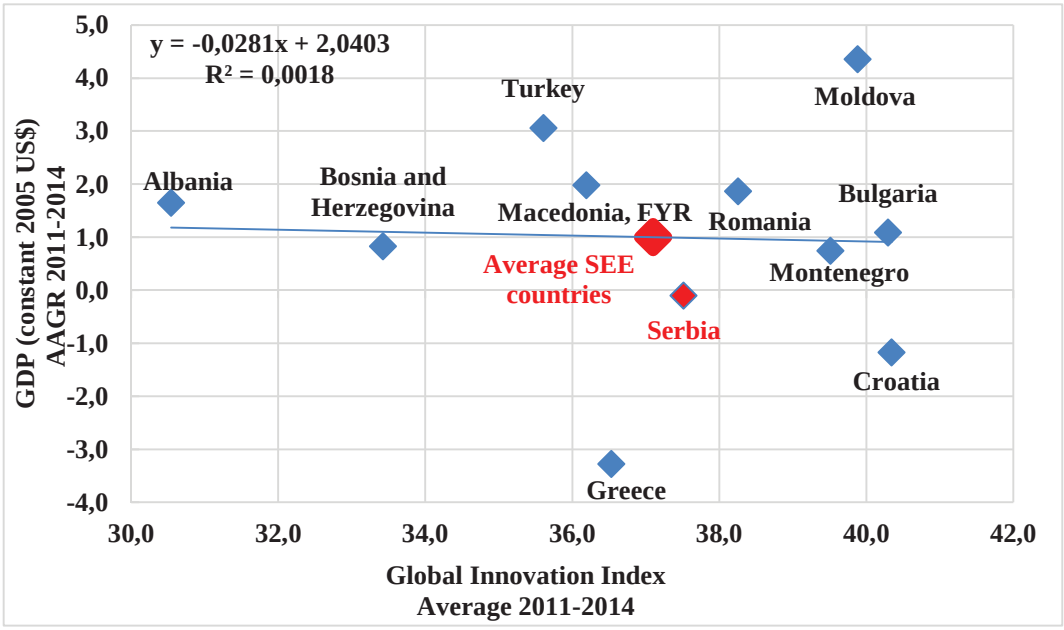
Graphic illustration of the average economic growth and innovation of SEE countries in the period 2011-2014 indicates the absence of correlation between the two phenomena observed. In the observed period, the highest average real economic growth was recorded in Bulgaria, Croatia, and

Moldova, and the highest average innovation level in Moldova, Romania, and Bulgaria. Croatia, which, in addition to Bulgaria, achieved the fastest economic growth, is, according to the average innovation, at the very bottom, while Greece, which recorded a decline in economic activity, achieved better innovation level than the four SEE countries that have achieved significantly higher economic growth than Greece. The situation is similar with other countries in Southeast Europe, so that the hypothesis on the correlation between economic growth and innovation in the case of 11 countries of Southeast Europe in 2011-2014 cannot be accepted.



Graph 8: Economic growth and innovation of SEE countries in 2011-2014
Source: Authors, based on the WB data and the Global Innovation Index

Graphic presentation of data pairs of variables *AAGR GDP (constant 2005 US $) 2011-2014* and *Average Global Competitiveness Index* for the countries of Southeast Europe also shows a very weak correlation between the variations of the observed variables. Adjusting the linear form of correlation and analysis of the components of the established model also indicates the previously set forth, visually perceived statement. The linear regression function has the following form: y = 2,0403 - 0,0281X, with the statistics R^2=0,0018 i R=0,042. The value of the coefficient of determination indicates that only 0.2% of the variations of the variable *AAGR GDP* is explained by the variations in the *Global Innovation Index*, while the remaining 99.8% is the result of the influence of other factors, which are not included in this model. Weak correlation is also confirmed by the correlation coefficient of 0.042. Its value points to the existence of weak, indirect (straight line extending from the upper left to the lower right corner of the graph) linear correlation between the observed variables in the countries included in the sample. The slope of the line (b_1 = 0.0281) shows that the increase in Global Innovation Index by one measurement unit leads to a decrease in *AAGR GDP* by 0.03%. By testing the hypothesis on linear correlation of the observed variables, through the corresponding regression coefficient, the value of the test statistic of -0,1341 is obtained. With a probability of test significance level of 0.05 and threshold test of 2.7764, it can also be concluded that there is no statistically significant linear correlation between the variables *AAGR GDP (constant 2005 US$) 2011-2014* and Average *Global Competitiveness Index 2011-2014* for the countries of Southeastern Europe.



Graph 9: Dispersion diagram and linear form of correlation between economic growth and innovation for the countries of Southeast Europe in 2011-2014
Source: Authors, based on the WB data and the Global Innovation Index

Conclusion

Knowledge-based development is the dominant concept of development of most countries in the world. Knowledge is seen as the basis for fostering innovation, which leads to maintenance and improvement of competitiveness, and thus based achievement of higher levels of economic growth and dynamic economic growth in a globalized economy. The role and importance of innovation for economic growth is, therefore, the subject of plenty of theoretical and empirical research. The results confirm the hypothesis that innovation is the most important long-term factor of economic growth and development. This is supported by the fact that most developed economies are also innovative leaders, and that countries lagging behind in the innovative development use production factors to a lesser extent, are less competitive, economically less developed, and develop slower in relation to countries that are innovatively successful.

Given the importance of innovation for economic development, the paper explores the achieved level of economic development, the rate of economic growth, and innovation of 11 countries of Southeast Europe, with the focus on Serbia, as the central country of the region. The results show that these are the countries with different levels of economic development, with significant differences in the rate and prospects of economic growth, and countries with uneven innovation performance. However, in aggregate terms, it can be concluded that this is a region that is economically far behind the average of the European Union, a region that was hit hard by the economic crisis, from which many countries in the region have not recovered yet, and the one that lags behind in innovative development. Accordingly, it was to expect that this would create the need to explore whether innovation in the countries of South East Europe is a key factor of economic growth, i.e. whether innovation gap is one of the most important factors of economic underdevelopment of SEE countries.

The results of the analysis show that there is no significant correlation between innovation and the level of economic development of the observed countries, i.e. that innovation is not a significant factor of economic growth in Southeast Europe. This means that, in the observed SEE countries, innovation does not have the same importance it has in the most developed economies, that these are countries which are not innovation-driven, basing their development on other factors, rather than knowledge and innovation. In such conditions, these countries are more prone to

external influences, slower to adapt to global challenges, and more vulnerable to crisis, because they have less capacity to overcome them quickly and successfully, so that they are condemned to economic underdevelopment and slower overall development, in relation to the leading countries of Europe and the world, which base their development on knowledge and innovation.

References

1. Baćović, M. & a group of authors (2013), Inovacije i ekonomski rast, paper for *3rd International Enterpreneurship Confenerence*, The Faculty of Economics Podgorica, Montenegro
2. Cvetanović, S. & Nedić, V. (2013). Analiza inovacionih performansi zemalja Zapadnog Balkana i izabranih zemalja Evropske unije, *Međunarodni problemi*, Institut za međunarodnu privredu i politiku, Beograd, No. 1, pp. 68-84.
3. Cvetanović, S., Despotović, D., & Nedić, V. (2012). Comparative analysis of business sophistication of Serbia and its neighboring countries. *Industrija*, 40(4), pp. 89-106.
4. Dutta, S. Lanvin, B. & Wunsch-Vincent, S. (2015). The Global Innovation Index 2014, The Human Factor in Innovation, WIPO, Cornell University & INSEAD
5. Dutta, S. & Lanvin, B. & Wunsch-Vincent, S. (2014). The Global Innovation Index 2013, The Local Dynamics of Innovation, WIPO, Cornell University & INSEAD
6. Dutta, S. (2013). The Global Innovation Index 2012, Stronger Innovation Linkages for Global Growth, INSEAD & WIPO
7. World bank, World Development Indicators, http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators, (accessed on 10.07.2015)
8. The Global Innovation Index, Data analysis, https://www.globalinnovationindex.org/content.aspx?page=data-analysis (accessed on 10.07.2015)
   http://stats.areppim.com/stats/stats_innovxgdp_correl_2012.htm

BUSINESS INCUBATORS AS AN ENTREPRENEURIAL ENGINES IN WESTERN BALKAN COUNTRIES

BSc Vladimir Ćorda[337],
MSc Đorđe Ćelić[338],
MSc Jelena Stanković[339]

Abstract

Theory and practice worldwide recognize the business incubators as a very useful tool for economic development, so this trend has affected the Western Balkan countries (WBC) as well and business incubators have begun their evolution in this area. Business incubators are programs for production support to newly established companies through infrastructure and range of services (administrative, technical, business etc.) that can improve their ability to start and run their business during the early period of development. In developing countries, such as WBC region, business support is more than welcome, and the concept of free enterprise is a relatively new for the citizens of WBC because communism and socialism prevailed for decades. The regional WBC politics and economies have many difficulties in reaching economic prosperity, and for young entrepreneurs the main problem in this area is fundraising for development of their business ideas. Considering the specificities of this area, the subject of this study is the success of business incubators in Western Balkan countries and their contribution in fostering the entrepreneurship as one of the key pillars of economic development. Business incubators are important business entities for academicians and practitioners, researchers, start-ups, domestic and foreign investors, allowing them to connect and achieve their business goals and aspirations, in spite of all the challenges associated with conducting business in the transitioning economies. Considering these aspects, this paper argues the significance of business incubators in a creation of entrepreneurial climate in Western Balkan countries, with a detailed specification of their performance.
The mail goal of this paper is to examine the effect of business incubators' success and to highlight the most important advantages of these businesses to enhance economic development of countries in transition, but on the other hand to draw an attention to the challenges and difficulties they are facing with regarding the specificities of WBC region. With a relevant literature review and empirical data, this study represents a step forward in understanding of the importance of business incubators in order to empower the entrepreneurship in WBC region. Our findings can help policy-makers, governments and practitioners in understanding and implementing incubator programs, leading to better planning and greater chance of success in launching start-ups in developing countries. The research focus is directed towards the WBC business incubation and its impact on entrepreneurial sphere, because the role of business incubators in transitional economies is crucial – and their development and performances must be monitored, measured and improved.

Keywords: *business incubators, entrepreneurship, Western Balkan countries (WBC)*

[337] Foundation Innovation centre Banja Luka, Mladena Stojanovića 4, 78000 Banja Luka, Republic of Srpska/BIH (email: vladimir.corda@icbl.ba)
[338] University of Novi Sad, Faculty of Technical Sciences, Trg Dositeja Obradovića 6, 21000 Novi Sad, Serbia (email: celic@uns.ac.rs)
[339] University of Novi Sad, Faculty of Technical Sciences, Trg Dositeja Obradovića 6, 21000 Novi Sad, Serbia (email: stankovicj@uns.ac.rs)

1. Introduction

Given that there is a growing interest in entrepreneurial activities and its institutional support worldwide, the aim of this paper is to present the role of business incubators as engines in expansion and strengthening of entrepreneurship in developing countries in the Western Balkan. The objective of this study is to examine the environment and conditions of regional market and its impact on fostering the entrepreneurship in developing ex-Yugoslavian countries which are Serbia, Bosnia and Herzegovina, Macedonia Montenegro and Croatia, in order to emphasize the importance of business incubators in this process. In addition, this paper describes the evolution of business incubators in Western Balkan countries (WBC) with an overview of all the specifics of their business and the difficulties in fundraising for launching start-ups. Through the relevant literature review, we pointed out the importance and the role of state policy, national economic strategies and the establishment of adequate business infrastructure in purpose of empowering entrepreneurial climate, as well as connections with universities. A special research effort is directed toward identification and evolution of incubators in WBC area as a tool for economic development.

This paper contributes to the previous study of Ćelić, Stanković and Nikolić about the business incubators development in Serbia, expanding this issue on wider area of Western Balkan region and providing a better understanding of business incubators' functioning and their role in economic prosperity of this transitional region. In addition, this study emphasizes the importance of activity type of business incubators in developing countries, as well as their relations with industrial and academic community. Therefore, this research study provides useful information to all stakeholders who are interested in incubator programs.

2. Entrepreneurial climate in Western Balkan Countries

One of the significant force and key to economic development throughout the world is certainly entrepreneurship, and it is evident in all industries, from agriculture to construction, education to health care, in art, transportation, and especially in high and internet technology (Azizi, Hosseini, Hosseini, & Mirdamadi, 2010). Most countries are focusing on an importance of innovation from economic perspective, where entrepreneurship is the driving force for a nation's economic prosperity (Williams, 1983). It is very important to study entrepreneurial activity in different countries in order to add a new knowledge and experiences in entrepreneurship theory and practice, to gain a profound understanding of entrepreneur behaviour, hence all of the specific challenges and impediments they face with among different countries, and indispensable to identify cultural specifics, differences or similarities in multiple nations (Radojevic-Kelley, 2011).

Western Balkan countries belong to the transitional group of so-called 'belated nations' that are late-coming countries also known as emerging markets. They do not own sources for technological and economic development, but can possess technology and other resources by transfer, which will enable the late-comers to catch up with the developed countries (Yülek & Taylor, 2012). Conflicts that afflicted the Western Balkan area in the 1990s have imposed a peripheral position in Europe to this the countries (Bartlett, 2009), characterized by deindustrialization processes, high unemployment rate, ethnic and regional fragmentation, political turmoil and overall instability. The disintegration of Yugoslavia (SFRY) followed by armed conflicts in the former Yugoslav republics (1990-1999) has had strong economic, political, ethnic and religious roots and consequences (Dyker & Vejvoda, 1996). After the division into smaller states, these socio-economic circumstances have undoubtedly had strong influence on all former Yugoslav countries (Slovenia, Croatia, Macedonia, Bosnia and Herzegovina, Montenegro and Serbia), from which only Slovenia no longer belongs to the group of developing countries (Yülek & Taylor, 2012, p.10).

The mentioned Western Balkan countries were faced with number of problems, such as (Bartlett, 2009):

- The inability to integrate into international trade;
- Chronic balance of payments deficits;
- Low inflows of international capital;
- Technological stagnation;
- Weak international competitiveness;
- Unattractive environment for productive entrepreneurship;
- Numerous barriers to start a business;
- Brain drain and outflows of skilled labour, etc.

It is known that transition, with its complementary phenomenon of globalization, further complicates and pressurizes the social, economic, political and cultural sphere of a country or region (Petrakos & Totev, 2000). These changes are particularly evident in WBC area, on which territory authors conducted the research about entrepreneurial development and the role that business incubators have in the success of small and medium enterprises – SMEs and start-ups. Nevertheless, the process of globalization has led to new developments in this part of Europe, accelerating the transition in recent years, bringing new challenges to economic development and encouraging the realization of entrepreneurial ideas where business incubators play an important role.

In 2000, after the democratic changes in Croatia and Federal Republic of Yugoslavia (Serbia and Montenegro) and by the end of the Kosovo war, it can be said that the Western Balkan economies entered a period of steady recovery (Bartlett, 2009). Compared to the performance over the previous decades, the economic growth was relatively strong in this WBC region. After the unfortunate events in this region, the new entrepreneurial businesses have been a main source of job creation for workers who have lost their jobs in the declining social-ownership and state-ownership sectors (Bartlett, 2009, p. 35). The period in 1990s was marked by rapid entry of new small businesses in the private sector, despite all of the regulatory and market obstacles, after which the entry rates slowed down. A key problem was lack of finance, domination of larger companies and a low level of policy impetus for promotion of the entrepreneurial sector in most of the WBC. In 2000s, after democratic changes in WBC region, an influx of foreign assitance began to ease the finansical constraints facing SMEs and startups, international aid donors brought their investment and domestic policy-makers recognized the entrepreneurial sector as a key element in economy reconstrution.

For instance, the development of business infrastructure in Serbia, as one of the Western Balkan countries, ran its course alongside with the other processes of economic transformation to a market-oriented economy. The first steps of the business infrastructure entities were conceived through project interventions numerous international organizations, while later continued through the action of the relevant ministries and National Agencies for Regional Development active at the national, provincial/regional or local level. Generally, the development of business infrastructure was non-institutional, on the initiative of private agencies, non-governmental organizations, or as an initiative of individuals, who wanted, with their personal commitment, to promote economic development in their communities (Mijacic, 2011).

There are many reasons why people are entering into their own business ventures and become the entrepreneurs; the most frequent and primary motives are personal freedom, independence and desire to create something new (Williams, 1983; Allen, 2011). In addition, it is not rare that the entrepreneurial desire arises from dissatisfaction with the work for others and personal frustrations, but still it may also be a result of personal aspirations and ambitions for self-actualization and personal achievement of something better and higher (Barringer & Ireland, 2009). There is also a

bright side of urge for launching an entrepreneurial businesses – individuals become entrepreneurs to pursue their own interests, ideas or just because their own joy for creation (Shumpeter, 1934; Shane, 1993). Researchers Barringer and Ireland (2009) have concluded that people become entrepreneurs because they want to have their future in their own hands, they want their own control, greater wealth, they have an enthusiasm and passion for novelty and they are attracted to obscurity.

However, despite the enthusiasm and innovation, all around the world entrepreneurs have a lot of trouble finding financial and other resources for launching their own start-ups, and this situation is further aggravated by the fact that they are inexperienced, unknown and have an untested new ventures (Barringer & Ireland, 2009; Mantell, 2009). Struggle for raising capital is inevitable because young entrepreneurs usually have a little business knowledge and experience. In a developing countries, such as WBC region, an additional and alternative ways of funding are very limited, and until recently did not even exist.

In Serbia, these problems have begun to be resolved during 2006, when the Ministry of Economy, Republic Agency for Development of Small and Medium Enterprises in Serbia and the Norwegian organization SINTEF (www.sintef.no) wrote the Program for development of business incubators and clusters from 2007 – 2010, which, among other things, proposes the establishment of a minimum 15 business incubators and the main national association of business incubators, establishment of at least one technology park and 10 clusters (Ćelić, Stanković, & Nikolić, 2015). A similar initiative was launched in Bosnia and Herzegovina, where the Norwegian organization SIVA and SINTEF have begun with providing support in business incubators' establishment. That kind of support dates from 2005, when the first incubator in Tuzla, Bosnia and Herzegovina was established, until today when the establishment of the third Incubator in BiH is in a process, with Norwegian support as well. In addition, the same organizations have supported the establishment of YES Incubator in Skopje, Macedonia. The necessity of development of business infrastructure in this part of Europe is widely recognized by the institutions of the European Union, which have supported a number of project initiatives in various ways, all across the WBC region.

3. The importance of Business Incubators for WBC entrepreneurship

It is known that business incubation is a very useful tool for economic development, so this trend has affected the Western Balkan countries as well and business incubators have begun their evolution in this area. Considering the specificities of this area, the subject of this study is the success of business incubators in Western Balkan countries and their contribution in fostering the entrepreneurship as one of the key pillars of economic development. Our findings can help policy makers, governments and practitioners in understanding and implementing incubator programs, leading to better planning and greater chance of success in launching start-ups in developing countries. The research focus is directed towards the WBC business incubation and its impact on entrepreneurial sphere, because the role of business incubators in transitional economies is crucial (Ćelić, Stanković, & Nikolić, 2015) – and their development and performances must be monitored, measured and improved. The concept of free enterprise is a relatively new for the citizens of WBC because communism and socialism prevailed for decades.

Business incubators are important business entities for academicians and practitioners, researchers, start-ups, domestic and foreign investors, allowing them to connect and achieve their business goals and aspirations (Ćelić, Stanković, & Nikolić, 2015), in spite of all the challenges associated with conducting business in the transitioning economies. A business incubator is an economic and social development entity designed to advise potential start-up companies, help them to establish, and accelerate their growth and success through a comprehensive business assistance program (Mubara Al-Mubaraki & Busler, 2013). The concept of business incubators has received a

significant amount of attention in Western Balkan part of Europe in recent years. The growing number of research studies (e.g., Aerts, Matthyssens & Vandenbempt, 2007; Barringer & Ireland, 2009; Škunca, 2014) emphasizes the importance of incubators as a key way of expanding entrepreneurship. Incubators offer a wide range of free or subsidized services, such as office space, administrative resources, connections to finance, and on-going training that address nearly all of the constraints faced by a youth-owned start-up (Škunca, 2014)., There are generally large benefits, for those entrepreneurs with access to the resources offered by an incubator. It is very important to know that these benefits can be publicized to cause a positive spill-over effect of increasing attention for entrepreneurship in general.

Development of business incubators represent an excellent tool for national or regional economic development, because they purpose is to support start-up companies and their business development. The main tasks of business incubators are reflected in providing services in various fields (InfoDev., 2015):

- start-up consulting and business planning,
- consulting in all areas important for business development and growth;
- consulting for and/or access to financing; and
- training and networking.

The traditional business incubator operates on a tenancy model, providing free or subsided office space, collaboration with advisors and mentors and other kinds of support, depending of local circumstances. On the other hand, there is a growing number of university-cantered business incubators. Besides the standard tasks, these incubators support students' entrepreneurship, bringing and organizing them courses, facilities and other supports, in exchange gaining the fresh ideas and stronger connections on university-industry relations (ISIS Innovation, 2014). Business practice worldwide indicates the importance of business incubators and accelerators for economic development, which is crucial in WBC area characterized by high unemployment rate. Furthermore, the present revolutions in information technologies and liberalization of trade regimes have created enormous opportunities for knowledge-based businesses as well as challenges for planners to create a new job positions (Lalkaka, 2004). The business incubators help tackle the obstacles faced by entrepreneurs, facilitate the venture creation process and provide numerous benefits to young entrepreneurs (Ćelić, Stanković, & Nikolić, 2015).

Given that the business incubators are organizations which are supporting the start-up companies with potential for growth and development, they should be recognized by policy-makers as an effective solution for WBC economic problems. The types and models can vary depending on the region's problems to be solved. Therefore, their flexibility and operating principles mostly determine the success of business incubators in solving economic difficulties, and WBC economies are mainly dealing with uncompetitive economy, weak growth of start-up enterprises, brain drain and poor transfer of knowledge and technology from R&D. In addition, business incubators can and should support students in developing entrepreneurial skills, as representatives of young, educated and driving force of the economy. Some of the benefits of such a structured organization are reflected in job creation, university-industry collaboration, revenues for local businesses and governments, and finally in tangible benefits of academic impact (ISIS Innovation, 2014).

The establishment of business incubators in this transitional region is justified because there is an experience of developed countries and market potential. Aggregate data for business incubators in Western Balkan countries, by some of the key characteristics, are given in Table 1.

Table 1 Aggregate data for business incubators in WBC in 2014/2015

Western Balkan country	Serbia	Bosnia and Herzegovina	Croatia	Macedonia	Montenegro
Number of Business Incubators	9	3	4	1	1
Space (approximately in square meters)	13.500	6.500	9.500	800	300
Occupancy rate (in percentages)	86%	78%	95%	97%	96%
Incubation period (in months)	36	36	36-60	24	-
Number of tenants	138	145	234	60	35
Number of employees	36	16	22	3	1

As it can be seen from Table 1, the capacity utilization of business incubators at WBC region is very high, due to the disposable space that they have. Represented data discuss the entrepreneurial spirit of the people from Western Balkan countries and the great interest and desire to start an entrepreneurial business. In a favour of this fact is going the number of tenants in business incubators.

In WBC region, the first business incubator is founded in Koprivnica, Croatia in 2001, and in 2004/2005 the first business incubators are being developed in 2004/2005 in Serbia, Bosnia and Herzegovina and Macedonia. After that, during 2006/2007/2008 there was an explosion of business incubators all across the region – Belgrade, Novi Sad, Banja Luka, Varaždin, Podgorica etc. Industrial activity of these incubators is different, which can be seen in comparative review in Table 2. Each business incubator has their own field of activities – some of them are concerned only with providing services, some of them are engaged in production, but some business incubators combine these activities. Practice has shown that the service-oriented incubators have better results than production because they are operating at the market place with significant limitations in regulatory requirements – despite the transition and globalization. Given the dynamic market environment and rapidly growing technology development, we can say that the history of development of business infrastructure in WBC region, and in this regard development of business incubators, was directed exclusively to create new jobs; but nowadays, field of action of business incubator spreads and this assignment is upgraded with a creation of scalable technological-oriented start-ups and better relations with universities and industry.

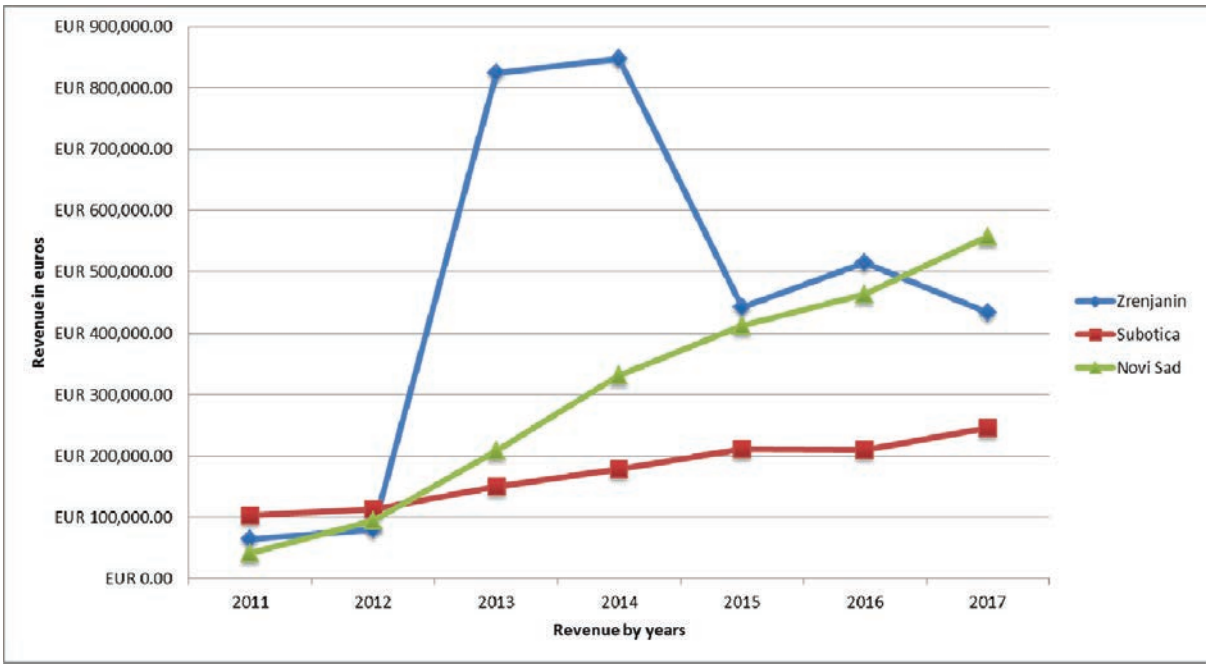
Table 2 The list of active business incubators in WBC

WBC	Business Incubator (cities)	Year of foundation	Length of the existence	Type
Serbia	Subotica	2006	9	combined
	Novi Sad	2010	5	service
	Zrenjanin	2005	10	service
	Beograd	2006	9	combined
	Kragujevac	2008	7	service
	Užice	2008	7	combined
	Kruševac	2008	7	combined
	Prokuplje	2007	9	combined
	Vranje	2006	9	production
Bosnia and Herzegovina	Mostar	2011	4	service
	Banja Luka	2010	5	service
	Tuzla	2005	10	service
Croatia	Koprivnica	2001	14	service
	Čakovec	2011	4	service
	Varaždin	2007	8	service
	Dubrovnik	2011	4	service
Macedonia	Skoplje	2005	10	service
Montenegro	Podgorica	2008	7	service

During the research performance of these incubators, we have analysed and generated revenue data for some of the incubators in the period 2011-2015. The data collected from three largest Serbian incubators are shown in Table 4. Based on these data shown in euros, we performed a revenue projection for the next two years of future success and growth of the revenue that these three business incubators are accomplishing. The collected data are presented at the Graph 1 as well.

Table 4 Annual revenue of the three largest business incubators in Serbia (Ćelić, Stanković, & Nikolić, 2015)

The largest BI in Serbia	Years						
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Zrenjanin	65,243	80,202	823,640	846,961	442,067	514,487	434,000
Subotica	103,084	113,071	149,838	179,200	210,800	210,180	246,000
Novi Sad	41,243	94,177	208,541	330,578	412,500	462,913	558,193



Graph 1. Revenue projection for the three largest business incubators in Serbia (Ćelić, Stanković, & Nikolić, 2015)

4. Conclusion

A relevant literature review in the field of entrepreneurship and business incubation, followed by the analysis of the success of business incubators in Western Balkan countries, have demonstrated that business incubators are an effective tool in fostering an entrepreneurship which resulting in better economic development. The findings in this paper support theoretical assumptions that quality initiatives and careful planning of incubators may present a pathway for start-ups (or SMEs) stimulation, particularly in developing countries, such as WBC region.

In this study, the general conclusions can be drawn – business incubators help strengthen the local entrepreneurial climate and economic development, which is supported by facts about occupancy rate, the number of tenants and annual revenue, followed by survival rate (Molnar et al. 1997; InfoDev, 2009) which is approximately 90% in all of the incubators in WBC region. These positive business results will lead the governments fund and support business incubators, because the number of successful start-up companies is increasing, which leads to the new jobs creation in the local market (Wagner, 2006), which finally affect the national and regional economic development (Mubara Al-Mubaraki & Busler, 2013).

Empirical data and business incubators' practice in WBC region indicate that the most successful business incubators are those who:

- have focus on non-productive activities i.e. those who are service-oriented and
- those who are related with universities.

Production-centred business incubators have additional problems and slower development, because tenants and firms who are production-oriented depend on the local economy, which still suffers the consequences of the war period and the transitional changes. Also, the production-oriented tenant firms are and can be focused mostly on the local market, which is problematic, while the service-oriented tenant firms that are mostly focusing their business efforts toward information technology and high-tech, offer their services worldwide and they are not limited only to the (problematic) local market. Also, greater success is recorded in those business incubators that are related with university centres and have developed cooperation between academic and industry communities. Generally, the service- and university-oriented business incubators are more successful, and this trend has been recognized as beneficial in the Western Balkan countries as well.

As WBC region continues with the transition into a market economy, funding will become more accessible providing entrepreneurs with greater means to operate, grow and success.

Acknowledgement

The authors of this paper are very grateful to the TEMPUS project "iDEA LAB" (JPHES 544373-1-2013-1) for enabling and supporting participation at the 4th REDETE Conference – Researching Economic Development and Entrepreneurship in Transition Economies, organized by University of Banja Luka, Republic of Srpska. In addition, we appreciate the support from business incubator in Tuzla for providing us an access to the collected data through the IPA project "BEST 4 SMEs – Improving the business environment for small and medium-sized enterprises (SMEs) in Tuzla and neighbouring municipalities".

References

1 Aerts, K., Matthyssens, P., & Vandenbempt, K. (2007). Critical role and screening practice of Eruopean business incubators. *Technovation, Vol. 27*, 254-267.

2 Allen, K. (2011). *Launching New Ventures: An Entrepreneurial Approach (with management CourseMate with EBook Printed Access Card) 6th Edn.* USA: Cengage Learning.

3 Azizi, B., Hosseini, J. F., Hosseini, M., & Mirdamadi, M. (2010). Factors influencing the development of entrepreneurial education in Iran's applied-scientific educational centers for agriculture. *American Journal of Agriculture and Biological Sciences*, 77-83.

4 Barringer, B., & Ireland, R. (2009). *Entrepreneurship: Successfully launching new ventures, 3rd Edn.* USA: Prentice Hall.

5 Bartlett, W. (2009). Economic development in the European super-periphery: Evidence from the Western Balkans. *Economic Annals*,, 21-44.

6 Ćelić, Đ., Stanković, J., & Nikolić, S. (2015). Development of Business Incubators in Serbia aimed at Entrepreneurship Empowerment: Past, Present and Future. *8th International Conference for Entrepreneurship, Innovation and Regional Development ICEIRD* (str. 480-488). Sheffield, United Kingdom: University of Sheffield.

7 Deng, P., & Yang, M. (2015). Cross-border mergers and acquisitions by emerging market firms: A comparative investigation. *International Business Review, 24*, 167-172.

8 Dyker, D. A., & Vejvoda, I. (1996). *Yugoslavia and After: A Study in Fragmentation, Despair and Rebirth.* New York: Routledge.

9 InfoDev. (2009). Lesson 17: Business incubators. Retrieved 2015, from Mixed-use Incubator Handbook: A Start-up Guide for Incubator Developers: Accessed on August 20, 2015 at www.jbv.com/lessons/lesson17

10 ISIS Innovation. (2014). *How to set up a successful university startup incubator.* University of Oxford.

11 Lalkaka, R. (2004). Business incubators in developing countries: characteristics and performance. *International Journal of Entrepreneurship and Innovation Management*, 31-55.

12 Mantell, E. (2009). A theory of the risks of venture capital financing. *American Journal of Economics and Business Administration*, 194-205.

13 Mijacic, D. (2011). *The Analysis of Business Infrastructure in Republic of Serbia.* Preuzeto February 12, 2015 sa National Agency for Regional Development: http://narr.gov.rs/index.php/Aktivnosti/Istrazhivanja-i-analize/Analiza-poslovne-infrastrukture-u-Republici-Srbiji

14 Mubara Al-Mubaraki, H., & Busler, M. (2013). The Effect of Business Incubation in Development Countries. *European Journal of Business and Innovation Research*, 19-25.

15 Petrakos, G., & Totev, S. (2000). Economic Structure and Change in the Balkan region: Implications for Integration, Transition and Economic Cooperation. *International Journal of Urban and Reginal research, Vol.24(1)*, 95-113.
16 Radojevic-Kelley, N. (2011). Free Enterprise and Entrepreneurship in Serbia: An Analysis of Motivations, Financing and Obstacles. *American Journal of Economics and Business Administration 3 (2)*, 338-346.
17 Shane, S. (1993). Cultural Influences on national rates of of innovation. *Journal of Business Venturing*, 59-73.
18 Shumpeter, J. (1934). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle, 1st Edn.* New Jersey: Transaction Publishers.
19 Škunca, D. (2014). The challenges for youth entrepreneurship: The case of youth entrepreneurship in Serbia. *REDETE - Economic Development and Entrepreneurship in Transition Economies* (str. 724-729). Banja Luka, Bosnia and Herzegovina: Faculty of Economics, University of Banja Luka.
20 Williams, E. (1983). Entrepreneurship, innovation and economic growth. *Technovation 2*, 3-15.
21 Yülek, M. A., & Taylor, T. K. (2012). *Designing Public Procurement Policy in Developing Countries.* New York: Springer.

COMPANY'S INNOVATIVENESS IN TRANSITION ECONOMIES: THE CASE OF MACEDONIA

Tihona Bozhinovska, PhD (Cont.)[340]

Marijana Cvetanoska, MSc[341]

Dragan Denkovski, MSc[342]

Abstract

Innovation is the ultimate result of the organization activities related to learning and creating new knowledge. According to the economic literature, innovation is a primary source of growth and national progress. Innovativeness is also identified as crucial for organizational survival in today's global economy. Innovation is the only option for companies that want to change, grow and sustain their competitive advantage.

Although the importance of innovation for the organizational and economic growth is significantly emphasized and well-documented in the economic literature, only few studies have focused on company's innovativeness in the transition economies from the south-east Europe. The aim of this study is to examine the level of innovativeness of Macedonian enterprises and to determine the connection between the enterprise's innovation and organizational performance. The main hypothesis on which this paper is based is that there is a positive and significant association between organizational innovativeness and firm performance.

The data were obtained from the Innovation Survey conducted by the State Statistical Office of the Republic of Macedonia. In the survey were included only enterprises that have ten (10) or more employees. This survey collected data on enterprise's innovation activities for three-year period, 2010-2012. The analyses were based on the data provided by the 1,130 respondents. According to this survey results small number of Macedonian companies have managed to introduce innovation in the analyzed period. Most of the large companies are identified as innovative. Almost two thirds of the small companies are non-innovative. More than half of the medium sized enterprises are classified as innovative. The findings of our analysis have shown that there is a negative and statistically significant relation between goods innovations and revue growth rate. In addition, it was reported a positive and significant effect of the introduction of service innovations on revenue growth. Furthermore, we did not found a significant correlation between organization or marketing innovations and revenue. This study indicates that only product (goods or service) innovations have significant impact on revenue growth.

Apart from the various limitations of the paper, we can conclude that some of the previous studies on the relation between organizational innovativeness and firm performance have similar findings.

Keywords: *organizational innovativeness, firm performance, types of innovations, Macedonian companies.*

[340] Volunteer of the Faculty of Economics, Ss. Cyril and Methodius University in Skopje, Department of Management; Bulvd. Goce Delchev, 9v, 1000 Skopje; tihona.bozinovska@eccf.ukim.edu.mk, tihonabozginovska@gmail.com.

[341] Volunteer of the Faculty of Economics, Ss. Cyril and Methodius University in Skopje, Department of Economics; Bulvd. Goce Delchev, 9v, 1000 Skopje; marijana.cvetanoska@eccf.ukim.edu.mk.

[342] Volunteer of the Faculty of Economics, Ss. Cyril and Methodius University in Skopje, Department of Mathematics and Statistics; Bulvd. Goce Delchev, 9v, 1000 Skopje; dragan.denkovski@eccf.ukim.edu.mk.

Introduction

The key characteristics of today's business environment are: globalization, constant changes and increased customer demands. Today, "humankind has the capacity to create far more information than anyone can absorb,… and to accelerate change far faster than anyone's ability to keep pace" (Senge, 2006, p. 69). Due to these trends, the companies have recognized the need to anticipate change in order to survive. Because the complexity and the uncertainty of the environment have increased, the organizations, nowadays, seek to learn and to create new knowledge more than ever before. The ultimate result of these activities is innovation.

Organizational innovativeness is a critical factor for creating a competitive advantage (Nonaka and Takeuchi, 1995; Dess et al, 2007). Innovation can be an important source for growth and have strong impact on organizational survival and success. In order to achieve growth, the companies have to introduce new products, penetrate into new markets or obtain new costumers. To do this companies have to invest in research and development, have to make significant changes in product design or packaging or to start using new marketing methods. In other words, companies have to innovate. Innovation is the only option for companies that want to change, grow and sustain their competitive advantage.

Furthermore, much of the rise in living standards is due to innovation — this has been the case since the Industrial Revolution. Today, innovative performance is a crucial factor in determining competitiveness and national progress (OECD, 2007). New growth theory emphases the importance of innovation in stimulating economic growth along with other drivers, such as physical and human capital (Wang, 2013). There is a good understanding of the role played by innovation in long run economic and social change, and many of its consequences (Fagerberg, 2004, p.13):

- Innovation introduces novelty (variety) into the economic sphere. Should the stream of novelty (innovation) dry up, the economy will settle down in a "stationary state" with little or no growth. Hence, innovation is crucial for long-run economic growth.
- Innovation tends to cluster in certain industries/sectors, which consequently grow more rapidly, leading to structural changes in production and demand and, eventually, organisational and institutional change. The capacity to undertake the latter is important for the ability to benefit from innovation.
- Innovation is a powerful explanatory factor behind differences in performance between firms, regions and countries. Firms that succeed in innovation prosper, at the expense of their less able competitors. Innovative countries and regions have higher productivity and income than the less-innovative ones. Countries or regions that wish to catch-up with the innovation leaders face the challenge of increasing their own innovation activities towards leader-levels.

In addition, in the later works of Fagerberg with Srholec (2008), in which they used factor analysis and empirical data from 115 countries, the capability of developing an innovation system, together with the quality of governance, the character of the political system and the degree of openness of the economy, is identified as crucial for economic development.

Although the importance of innovation for the organizational and economic growth is significantly emphasized and well-documented in the economic literature, only few studies have focused on company's innovativeness in the transition economies from the South-East Europe (Leskovar-Spacapan and Bastic, 2006, 2007; Slavkovic and Babic, 2013). Leskovar-Spacapan and Bastic (2006) have presented evidence that confirm the association of the entrepreneurship and market orientation of the manufacturing companies in Slovenia with the organizational innovation capability. Slavkovic and Babic, (2013) have demonstrated that knowledge management is

positively related to the different dimensions of organizational innovation, on a sample of Serbian companies.

The purpose of this paper is to describe the types of innovations of Macedonian companies and to examine the correlation between organizational innovativeness and organizational performance. In order to investigate the level of organizational innovativeness and its impact on performance, quantitative methods, such as descriptive statistics and regression analysis, were used. This paper attempts to analyze the organizational innovativeness of the companies that front a specific environment, typical for a transition economy. Therefore, it may contribute in revealing the importance of innovations for improving the company's competitive position.

Literature review

Innovation is defined as commercial application of something new (Schumpeter, 1983). According to Senge "the idea becomes an 'innovation' only when it can be replicated reliably on a meaningful scale at practical costs" (2006, p.5). From Nonaka's point of view the essence of innovation is to re-create the world according to a particular vision or ideal (2007). OECD (1999) describes innovation as "the creative use of various forms of knowledge when responding to market-articulated demand and other social needs". It is important to emphasize that innovation is not only about creating new products and implementing new technology. Innovation also includes new processes, new business systems and new management methods – all of which have an important impact on productivity and hence growth.

There are different classifications of innovations. Christensen and Overdorf (2000) have identified two types of innovations: sustaining innovation and disruptive innovation. *Sustaining innovations* are created when companies are introducing evolutionary changes. On the other hand, *disruptive innovations* are radical and their implementation often is associated with changes in organizational values. Similarly, some authors make distinction between: 1.*incremental innovation* – small improvements in product and processes; and 2.*radical innovation* – significantly important changes that can lead to creating new product and process or even new industries (Leifer et al, 2000). However, the most widespread classification of innovations is based on the object that is in the focus of the innovative process: the organizational output (product/service) or the organizational processes. Consequently, there is a distinction between *product innovation* and *process innovation* (Dess et al, 2007). OECD (2005) describes four types of innovations: *product innovation, process innovation, marketing innovation and organizational innovation*.

According to Gamal (2011), the key attributes of innovation are as follows: innovation involves combination of inputs in the creation of output; knowledge is a key input to innovation; the inputs to innovation are assets; innovation involves activity for purpose of creating economic value; the process of innovation is complexed and the outputs of it are unpredictable. Therefore, innovation processes are effortful and high-risk activities.

The innovation can be analyzed from a macroeconomic and a microeconomic perspective (Fagerberg et al, 2010). In the macroeconomic level of analysis the focus is on the technological capabilities of countries, while on a micro level – on the innovation activities in firms. From a macroeconomic point of view countries differ by their ability to exploit its potentials and their level of innovation, as a result of their differences in technological congruence and social capability. The first concept refers to the degree to which leader and follower country characteristics are congruent in areas such as market size, factor supply, ect. While the most important aspects in the social capability concept are the technical competence (level of education), experience in the organization and management of large scale enterprises, financial institutions and markets capable of mobilizing

capital on a large scale, honesty and trust and the stability of government and its effectiveness in defining (enforcing) rules and supporting economic growth. (Fagerberg et al, 2010, p.841)

Nevertheless, crucial task is to review various studies that are trying to provide understanding theoretical framework of the concept of organizational innovativeness and its dimensions. Subramanian and Nilakanta (1996, p.633), have written that innovativeness is an "enduring organizational trait" and that can be determined as exhibiting innovative behavior *consistently over time*. According to Dess et al. (2007, p.456) organizational innovativeness "refers to firm's efforts to find new opportunities and novel solutions and to a firm's attitude towards innovation and willingness to innovate".

Organizational innovativeness includes "creation of information", or "creation of meaning". "Meaning creation is the process of synthesizing a new perspective or point of view. It is a new dimension for organizing and interpreting syntactic information and knowledge" (Nonaka and Yamanouchi, 1989, p. 300). Therefore, innovations are a results of the organizational knowledge creation. The organizational knowledge creation has two dimensions: epistemological and ontological. The epistemological dimension refers to the distinction between two types of knowledge that exists in an organization: tacit knowledge and explicit knowledge. The ontological dimension or the level of social interaction explains how to knowledge created by the individuals can be amplified, deepened and crystalized by becoming a part of the knowledge network of an organization.(Nonaka, 1994)

Wang and Ahmed (2004) have identified five areas of organizational innovativeness: product, market, process, behavior and strategy.

Both, Lynch et al. (2010) and Ruvio et al. (2014) have suggested five key dimensions of organizational innovativeness. According to Lynch et al. (2010) the list of key dimensions includes: *creativity, openness to new ideas, intention to innovate, willingness for risk-taking* and *technological capacity to innovate*. On the other hand, Ruvio et al. (2014) have identified the following dimensions of the organizational innovativeness: *creativity, organizational openness, future orientation, risk-taking* and *proactiveness*. In both papers *creativity* is defined as conceptualization of new useful ideas, products or processes. *Organizational openness*, according to both authors, refers to the willingness to consider new, untested ideas. *Risk-taking* affects the decision-making and it refers to the readiness to accept the outcomes of a given action (Lynch et al., 2010; Ruvio et al., 2014). Both, the *proactiveness* and the *intention to innovate* are associated with the strategic intention for innovation. Proactiveness refers to the firm's efforts to seize new opportunities (Dess et al., 2007, p.458). The fifth dimension, according to Lynch et al. (2010, p.13) – the *technological capacity to innovate* is defined as "the ability of organizations to adopt and implement new ideas, processes or products successfully". On the other hand, *future orientation* "reflects a temporal perspective of organizational preparedness for future environmental changes and positioning in light of such changes" (Ruvio et al., 2014, p. 1009). In short, we can conclude that creativity, organizational openness, risk-taking and proactiveness are the core dimensions of organizational innovativeness.

Subramanian and Nilakanta (1996, p.634) also noted that numerous previous studies have indicated that "organizational innovativeness is influenced by organizational characteristics such as size, degree of centralization, degree of formalization, resource slack, degree of specialization etc.".

Experience proved that new products and services on the market are those that generate the biggest revenue which encourages companies to invest in innovation (Petrariu et al, 2013). In the recent decades there have been numerous studies that address the association between organizational innovativeness and firm performance (Camisón and Villar-López, 2014; Atalay et al,

2013; Price et al, 2013; Kemp et al, 2003). All of them have demonstrated a positive association between innovations (or certain type of innovations) and firm performance. Moreover, Vincent et al. (2004) have conducted a meta-analysis of 83 studies published in the period 1980-2003, and their overall results have shown that "innovation is significantly and positively related to superior performance" (p.1).

Recently, various studies are trying to provide evidence on the innovation activities in South-East European countries. In the past two decades, the transition economies of Central and Eastern Europe have tended to embrace innovation-related issues within their accession into the European Union, which defines the development of a knowledge-based economy as a crucial policy goal (Aralica et al, 2008). The importance of innovation activities for firm performance has become widely acknowledged and R&D activities have been recognized as a crucial factor of innovation activity and/or innovation capacity (Aralica et al, 2009). Hashi and Stojcic (2013) have tried to to compare the determinants of the innovation process in mature market economies of Western Europe and transition economies from Central and Eastern Europe which recently joined the EU. Some of their conclusions are as follows: firms undertaking some innovation activities in the previous years performed much better than their rivals which did not engage in any innovation activities; firms that have some kind of cooperation with rivals, customers, universities or research laboratories and firms that are part of groups have much higher productivity in both samples; and that larger firms are more likely to engage in innovation activities and invest more in innovation, but innovation output decreases with firm size. Furthermore, Stojcic et al. (2013) identify three main channels through which innovation activities may affect firm competitiveness: improvements in cost efficiency, productivity of inputs, and quality of products. Both, cost reductions and productivity of inputs, play an important role in explaining the competitiveness of firms in transition economies.

In accordance with the reviewed literature, the main hypothesis on which this paper is based is that there is a positive and significant association between organizational innovativeness and firm performance.

Innovativeness of Macedonian companies

This section presents an overview of various aspects of the organizational innovativeness of Macedonian companies.

The presented data are obtained from the Innovation Survey conducted by the State Statistical Office of the Republic of Macedonia. In the survey were included only enterprises that have 10 or more employees. This survey collected data on enterprise's innovation activities for three-year period, 2010-2012. The sample encompasses of 2024 enterprises, but 1,130 have responded. The data presented in this section are pondered and they represent the estimations for the innovativeness of the overall population of business entities.

At the beginning we will present the data that reflect the level of importance of certain strategic priorities for the Macedonian companies. Table 1 reports the statistics for this issue.

According to the results presented in Table 1 we can note that introducing new or significantly improved goods or services is a top strategic priority for 1,325 enterprises. In the same time, for almost the same number of enterprises (1,347) this strategy is not relevant. Also, the improvement of the marketing activities is high importance priority for a significant number of companies (1,218). Developing new markets (within or outside Europe) is an important strategy for 1,159 companies.

The findings presented in Figure 1. are suggesting that a small number of companies have managed to introduce innovation in the analyzed period. If in 2012 the number of active enterprises

with 10 or more employees was 5,824 (State Statistical Office of the Republic of Macedonia, 2012, p.483), we can conclude that 31.58% of the companies categorized as small, medium or large were innovative.

Table 1. Importance of strategies for reaching company's goals

Strategy	***Number of companies that selected the following degree of importance:***			
	High	***Medium***	***Low***	***Not relevant***
Developing new markets within Europe	798	510	527	2,983
Developing new markets outside Europe	361	454	648	3,355
Reducing in-house costs of operation	1,693	1,290	657	1,178
Reducing costs of purchased materials, components or services	1,726	1,326	625	1,141
Introducing new or significantly improved goods or services	1,325	1,276	870	1,347
Intensifying or improving the marketing of goods or services	1,218	1,169	995	1,435
Increasing flexibility / responsiveness of your organisation	1,213	1,524	937	1,144
Building alliances with other enterprises or institutions	206	303	1 060	3,249

Source: State Statistical Office of the Republic of Macedonia.

Figure 1 represents the number of companies that have introduced a certain type of innovation.

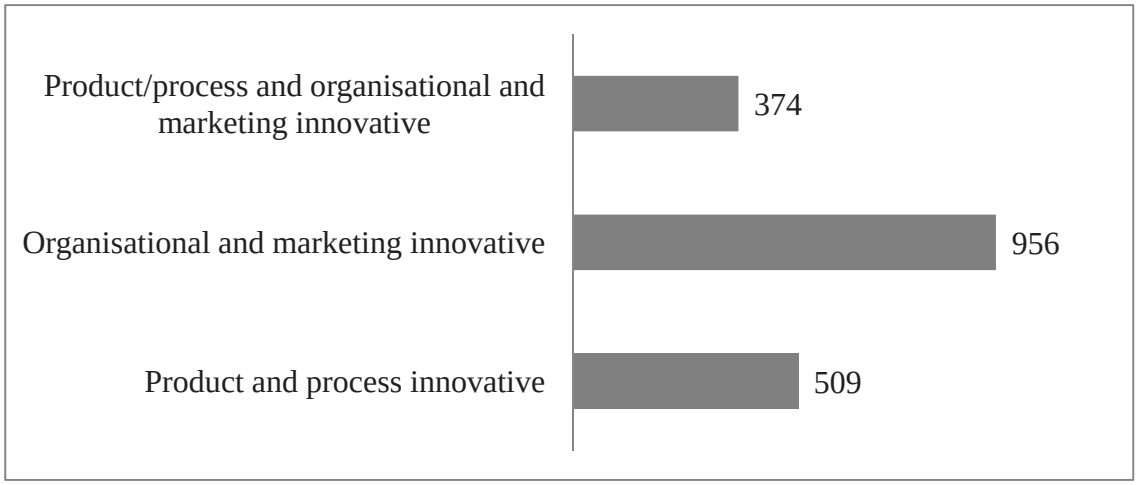


Figure 1. Companies by types of innovations

Note: This figure was created with the data obtain from the State Statistical Office of the Republic of Macedonia.

In accordance with the enterprises involvement in the innovative activities they are identified as innovative and non-innovative. Table 2 illustrates a classification of the companies by size and by level of innovativeness.

According to this survey results most of the large companies are identified as innovative. Almost two thirds of the small companies are non-innovative. More than half of the medium sized enterprises are classified as innovative.

Table 2. Companies by innovation and size categories

Innovativeness	***Size***		
	Small	*Medium*	*Large*
Innovative	1,583	377	100
Non-innovative	2,384	342	32

Source: State Statistical Office of the Republic of Macedonia.

Organizational innovativeness and firm performance

As noted before, numerous studies have demonstrated the association between organizational innovativeness and firm performance. In this section of the paper the focus is on exploring the correlation between innovation and performance.

Methodologically, it is significant to emphasize that the analysis was conducted on the data provided by the 1,130 respondents. We used the data that were obtained in the Innovation Survey conducted by the State Statistical Office of the Republic of Macedonia. This data are available only for research purposes.

In order to determine the association between organizational innovativeness and firm performance, multiple regression analysis was performed. In the models the revenue growth rate is dependent variable. The independent variables are the types of introduced innovations and the research and development expenditures.

The results from the multiple regression analysis are presented in Table 3.

The first column in Table 3 represents the results for a regression of the revenue growth rate on a set of independent variables. In this regression the independent variables are innovation dummies and research and development expenditures. Innovation dummies show whether or not the company have introduced any type of innovation in the analyzed period, 2010-2012. These results reveal that there is not statistically significant relation between the introduction of any type of innovation and revenue growth rate. The explanatory power of Model 1 is very low (Adjusted R^2 is 0.3 per cent).

In the second column of Table 3. (Model 2) we included five innovation dummies and research and development expenditures as independent variables. Model 2 is statistically significant at 95% level of confidence. The explanatory power of this model is little higher than the one of the Model 1 (Adjusted R^2 is 0.7 per cent). The introduction goods innovations by the companies appear to have statistically significant ($p<0.05$) and negative impact on revenue growth rate. On the other hand, the introduction of service innovation is positively associated with the company's revenue, but this effects are statistically weak ($p<0.1$).

Finally, Model 3 includes twelve innovation dummies and in-house research and development expenditures. This model also confirms the negative and statistically significant relation between goods innovations and revenue growth, and the positive and statistically significant effect of service innovations on revenue. Model 3 explains 0.7 per cent of the variations in revenue growth rate. In all three models in-house research and development expenditures have negative and statistically insignificant correlation with company's increases in revenue.

Conclusion

Prior works have documented the importance of innovation for company's competitive position and the association of organizational innovativeness and firm performance. Vincent et al. (2004), who conducted a meta-analysis on 83 studies published in the period 1980-2003, noted a positive relation between innovation and firm performance.

In this paper we tested whether the introduction of innovations is associated with the revenue growth rate. The findings have shown that there is a negative and statistically significant relation between goods innovations and revue growth rate. In addition, it was reported a positive and significant effect of the introduction of service innovations on revenue growth. Also, we did not found a significant correlation between organizational or marketing innovations and revenue. This study indicates that only product (goods or service) innovations have significant impact on revenue growth.

Table 3. Results of regression analysis

	Dependent variable: revenue growth rate		
Independent variables	*Model 1*	*Model 2*	*Model 3*
Product innovations	0.064		
Goods innovations		-0.244**	-0.269**
Service innovations		0.204*	0.215*
Process innovations	0.099	0.115	
Methods of manufacturing			0.185
Methods of logistics, delivery or distribution			-0.202
Supporting activities			0.172
Organizational innovations	0.127	0.126	
Business practices			-0.003
Methods of organizing work responsibilities and decision making			0.123
Methods of organizing external relations			-0.080
Marketing innovations	-0.073	-0.063	
Design or packaging			0.060
Product promotion			-0.179
Product placement			0.120
Pricing			-0.007
R&D expenditures	-3.51394E-06	-2.99451E-06	-3.32017E-06
Observations	1,130	1,130	1,130
R^2	0.007	0.012	0.019
Adjusted R^2	0.003	0.007	0.007
ANOVA F	1.651	2.330**	1.638*

Source: Author's analysis of the data that were obtained from the State Statistical Office of the Republic of Macedonia.

Note: Asterisks indicate significance: indicate*** p<0.01; **p<0.05; *p<0.1.

Some of the previous studies on innovativeness and firm performance have similar findings. Atalay et al. (2013), for example, have reported that product and process innovations have positive and significant association with firm performance, while organizational and marketing innovations do not have.

However, this paper has various limitations. Firstly, large number of Macedonian companies do not have research and development department and do not have an accurate accounting records on the research and development expenditures. Secondly, some of the data referring to company's characteristics was not provided to us, due to the need to protect the respondents in the survey from possible identification. Consequently, we were not able to construct a more comprehensive model. Thirdly, in the survey were collected only data about the company's revenue in the beginning and in the end of the period. Therefore, we did not have data which truly reflects the firm performance. The revenue growth rate is not the most suitable measure of organizational performance for this type of analysis and does not represent the overall firm performance.

The limitation noted in this section can provide directions for future work. Future work should be focus on examining the impact of organizational innovativeness on other measures of firm performance and on identifying the determinants of organizational innovativeness in transition economies.

Reference list

1. Aralica, Z., Račić, D., Radić, D. (2008). Innovation Propensity in Croatian Enterprises: Results from the Community Innovation Survey. *South East European Journal of Economics and Business*. 3 (1), pp. 77-88.
2. Aralica, Z., Racic, D., Redzepagic, D., (2009), R&D Activities as a Growth Factor of Foreign-Owned SMEs in Croatia. *Croatian Economic Survey*. 11, pp.73-94.
3. Atalay, M., Anafarta, N., Sarvan, F. (2013). An empirical evidence from Turkish automotive supplier industry. *Procedia - Social and Business Sciences*. 75, pp.226-235.
4. Camisón, C., Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*. 67 (1), pp. 2891-2902.
5. Christensen, C. M., Overdorf, M. (2000). Meeting the challenge of disruptive change. Harvard Business Review. 78, pp.66-76.
6. Dess, G. G., Lumpkin, G. T., Eisner, A. B. (2007). *Strategic management: text and cases*. 3rd Edition. McGraw-Hill Companies, Inc. New York.
7. Fagerberg, J. (2004). Innovation: A guide to the literature. In Fagerberg, J., Mowery, D., Nelson, R. (Ed.). *The Oxford Handbook of Innovation*. Oxford University Press. Oxford. pp.1-26.
8. Fagerberg, J., Srholec, M. (2008). National innovation systems, capabilities and economic development. *Research Policy*. 37 (9), pp. 1417-1475.
9. Fagerberg, J., Srholec, M., Verspagen, B. (2010). Innovation and economic growth. In Hall, B. H., Rosenberg, N. (Ed.). *Handbook of the Economics of Innovation*, 2, pp. 833-871.
10. Gamal, D. (2011). How to measure organization innovativeness: An overview of innovation measurement frameworks and innovation audit / Management tools. http://www.tiec.gov.eg/backend/Reports/MeasuringOrganizationInnovativeness.pdf (accessed 28.06.2015).
11. Hashi, I., Stojcic, N. (2013). The impact of innovation activities on firm performance using a multi-stage model: Evidence from the Community Innovation Survey 4. *Research Policy*. 42, pp. 353-366.
12. Kemp, R. G. M., Folkeringa, M., de Jong, J. P. J., Wubben, E. F. M. (2003). *Innovation and firm performance*. Scientific Analysis of Entrepreneurship and SMEs, Research Report.
13. Leifer, R., McDermott, C. M., Colarelli O'Connor, G, Peters, L. S., Rice, M. P., Veryzer, R.W. (2000). *Radical Innovation: How mature companies can outsmart upstarts*. Harvard Business School Press. Boston.

14. Leskovar-Spacapan, G., Bastic, M. (2006). Culture, entrepreneurship and market orientation as determinants of organizational innovation capability: the case of transition economy. *Proceedings of the 6th WSEAS International Conference on Simulation, Modelling and Optimization*. Lisbon, Portugal. pp. 385-390.
15. Leskovar-Spacapan, G., Bastic, M. (2007). Differences in organization's innovation capability in transition economy: Internal aspect of organizations' strategic orientation. *Technovation*. 27 (9), pp. 533-546.
16. Lynch, P., Walsh, M., Harrington, D. (2010). Defining and dimensionalizing organizational innovativeness. http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1468&context=refereed c
17. Nonaka I., Yamanouchi, T. (1989). Managing innovation as a self-renewing process. *Journal of Business Venturing*. 4 (5), pp. 299-315.
18. Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*. 5 (1), pp. 14-37.
19. Nonaka, I. (2007). The Knowledge-Creating Company. *Harvard Business Review*. 85 (7/8), pp. 161-171.
20. Nonaka, I., Takeuchi, H. (1995). *The knowledge-creating company*. Oxford University Press. New York.
21. OECD (1999). *Managing national innovation systems*. OECD Publications, Paris.
22. OECD (2005). *The measurement of scientific and technological activities Oslo Manual: Guidelines for collecting and interpreting innovation data*. 3rd Edition. OECD publishing. Paris.
23. OECD (2007). *Innovation and growth: Rationale for an innovation strategy.* http://www.oecd.org/science/inno/39374789.pdf (accessed 28.06.2015).
24. Petrariu I. R., Bumbac R., Ciobanu R. (2013). Innovation: a path to competitiveness and economic growth. The case of CEE countries. *Theoretical and Applied Economics.* 20(5), pp. 15-26.
25. Price, D. P., Stoica, M., Boncella, R. J. (2013). The relationship between innovation, knowledge, and performance in family and non-family firms: an analysis of SMEs. *Journal of Innovation and Entrepreneurship*. 2(14). http://www.innovation-entrepreneurship.com/content/pdf/2192-5372-2-14.pdf (accessed 28.06.2015).
26. Ruvio, A. A., Shoham, A., Vigola-Gadot, E., Schwabsky, N. (2014). Organizational innovativeness: Construct development and cross-cultural validation. *Journal of Product Innovation Management*. 31 (5), pp. 1009-1022.
27. Senge, P. M. (2006). *The Fifth Discipline: The Art & Practice of the Learning Organization*. Doubleday, New York.
28. Slavkovic, M., Babic, V. (2013). Knowledge management, innovativeness and organizational performance: Evidence from Serbia. *Economic Annals*. 58 (199), pp. 85-107.
29. State Statistical Office of the Republic of Macedonia (2012*). Statistical Yearbook of the Republic of Macedonia, 2012*. Skopje.
30. Stojcic, N., Hashi, I., Telhaj, S. (2013). Restructuring and Competitiveness. *Eastern European Economic*. 51(4), pp. 84-107.
31. Subramanian, A., Nilakanta, S. (1996). Organizational innovativeness: Exploring the relationship between the organizational determinants of innovation, types of innovations, and measures of organizational performance. *Omega*. 24(6), pp. 631-647.
32. Vincent, L. H., S. G. Bharadwaj, G. N. Challagalla. (2004). Does innovation mediate firm performance: A meta-analysis of determinants and consequences of organizational innovations*?. Georgia Institute of Technology working paper*.
33. Wang, C. (2013). The Long-run Effect of Innovation on Economic Growth. *IARIW-UNSW Conference on Productivity: Measurement, Drivers and Trends*. Sydney. http://www.murdoch.edu.au/School-of-Management-and-

Governance/_document/Australian-Conference-of-Economists/The-long-run-effect-of-innovation-on-economic-growth.pdf (accessed 30.06.2015).

34. Wang, C. L., Ahmed, P. K**. (**2004). The development and validation of the organizational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*. **7** (4), pp. 303–313.

THE DEVELOPMENT OF CREATIVE INDUSTRIES IN POLAND – OPPORTUNITIES FOR ENTREPRENEURAL DEVELOPMENT OR JUST A TEMPORARY FASHION

Rafal Kasprzak PhD

Institute of Management, Warsaw School of Economics, Poland

Address: Madalińskiego 6/8, room 319, 02-554 Warsaw, Poland;

e-mail: rafal.kasprzak@sgh.waw.pl

Abstract

The first part of this paper presents the number, and changes in the number, of entities in the creative sector in Polish regions between 2009 and 2013 and the key determinants of development of the creative sector. The second part presents the influence of the creative sector on the economy, showing three types of effects: direct, indirect, and induced. Direct effects include job creation, complementarity, and tax revenues. Indirect effects include following factors: promotional, strengthening locational attractiveness, social activation, revitalisation, and socialisation factors. Induced effects include increased revenue resulting from workers living and consuming in the region.

Key words: *creative sector, impact, regional development, regions*

Introduction

The creative sector in the Polish economy seems to be both an ‘old’ and a ‘new’ part of its socio-economic system. In other words, while economic activities related with the absorption of human creativity have been present for many decades in Poland, nowadays this sector seems to be more and more often visible in both local and regional growth strategies. In the majority of strategic documents, the creative sector is often described as a sector with a significant positive impact on sustainable economic growth and the quality of life. Therefore the key question which should be asked is whether this ‘new-or-old’ branch of culture-related activities can positively affect regional development.

Definition and development of the creative sector in Poland

Recently, in both strategies of regional development and in activities undertaken by regional authorities to promote investment, creative expression related with business activities seems to emerge. This so-called creativity is often presented in terms of being a business sector or industry. Thus administrative actions directed toward the creative sector or creative industry have become more and more popular nowadays. Both regions and cities have recently decided to develop a special district aimed at promoting the creative sector (i.e. revitalisation of Bilbao, Porto Antico in Genova, or the Praga district in Warsaw) or a special infrastructure (i.e. Targowa in Warsaw), or have taken an active part in business cluster development corresponding to the needs of creative business. It seems that nowadays the creative sector is recognized as important factor in building a contemporary competitive advantage for the European economy in the global world.

However, in order to analyse the impact of the creative sector on the contemporary economy a strong research definition is required. This could help researchers to establish a precise and appropriate scope of business activities which fall within the term ‘the creative sector’. Hence any attempt to estimate the number of entities in the creative sector and their impact on the local economy requires first of all the development of an effective definition which allows not only to specify them, but also to determine their number. This is not an easy task, mostly due to problem of definition of such words as “culture” and “creativity”. From a scientific perspective it is very confusing that each report encompasses a slightly different scope of activities defined as the ‘creative sector’.

In Poland it seems that the definition most commonly used is that proposed by Great Britain's Department for Culture, Media and Sport (2001), which describes cultural industries as those activities which have their origin in individual creativity, skill and talent, with a potential for job and wealth creation through the generation and exploitation of intellectual property, which is a specific feature of the product that is their outcome. This definition also describes individual areas of activity belonging to this sector, so it is possible to carry out analyses of its impact on the economy and make comparative studies of regions and states.

However, the above-mentioned definition is not the only attempt to identify this sector. Additional approaches can be found in the scientific research. The concept of 'leisure industries', which comprises that segment of business focused on the organisation of households’ leisure time is one such approach. Leisure industries include the activities people perform during their leisure time, thus also creating time-consumption markets, i.e. those which organise the way people spend their leisure time (Bombol 2008: 113). Also, the idea of ‘spectacle industries’ or ‘experience industries’ (Debord 1967) comprises a wider group of economic activities than that of creative industries. ‘Experience industries’ are defined as a sector combining both activities in the sphere of culture and those that use or are inspired by products of culture. The definition adopted by the World Intellectual Property Organization tends to focus on the nature of the final product rather than on the

activity of an entity, and defines this area as 'copyright industries'. The definition proposed by the United Nations for the purposes of cultural statistics describes creative industries (UNCAD 2010: 8) as: the sector of the production and distribution of goods and services for which the main production factor is creativity and intellectual capital; the area of economic activity focusing on (but not restricted to) arts, enabling the generation of revenues from trade in both products of culture and copyrights; the sector which includes tangible products and their intangible aspects as well as market activity and economic calculus; and the sector located between arts, artists, services and other industrial sectors, which contributes to the development of a new sector in international trade.

To further complicate matters, working out an explicit definition is hindered by the very dynamic development of this sector as well as its quick absorption of technological innovation, which not only alters production processes but also bring about a diversification of distribution methods. This greatly amplifies the ongoing confusion with the definition of this area. Within the systematic list of services offered (Dąbrowska 2008: 29), the scope of activities of creative industries can be described as embracing functions related to the organisation of a household's leisure time, which moreover meet the needs connected with the development of human capital and, as they focus on an individual recipients, are financed mainly from public means and thus to a certain degree have the nature of social services (Janoś-Kresło 2002: 17).

While the various above-mentioned definitions of the creative sector have certain features in common - they speak of an economic activity that focuses on the production of cultural goods, which are very often intangible and require human creativity - nevertheless it is very difficult to develop a coherent and explicit definition of this sector which would help to present its diversity while also determining the limits of analysis. Hence, in trying to define this sector in the realities of the contemporary Polish economy, one can describe it as that sphere of social services embracing economic activities devoted to the creation and commercialisation of products of culture, which can take various organisational business forms, in the following sub-sectors:

- arts and crafts, comprising visual arts, performing arts, national heritage, libraries and archives;
- creative production, comprising programming, publishing, film and TV production, as well as radio and music production; and
- creative services, comprising fashion and design, advertising and related activity, as well as architecture and interior design.

Hence the sector of creative industries includes three sub-sectors and several areas of business activity, which are assigned relevant codes in the classification of economic activity (PKD in Poland, corresponding to NACE) (Table 1).

Table 9. Creative industries – division and classification according to PKD 2007 (NACE Rev. 2).

Sector of creative industries	Sub-sector of arts and crafts	Visual arts (74.20.Z; 90.03.Z; 47.78.Z)
		Performing arts (90.01.Z; 90.02.Z; 90.04.Z)
		National heritage, libraries and archives (91.01.A; 91.01.B; 91.02.Z)
	Sub-sector of creative production	Programming (58.21.Z)
		Publishing (58.11.Z, 58.13.Z; 58.14.Z; 58.19.Z)
		Film and TV production (59.11.Z; 59.13.Z; 59.14.Z)
		Radio and music production (59.20.Z; 60.10.Z; 60.20.Z)
	Sub-sector of creative services	Fashion and design (74.10.Z)
		Advertising and related activity (73.11.Z; 73 Dec. A; 73 Dec. B; 73 Dec. C; 73 Dec. D)
		Architecture and interior design (71.11.Z)

Source: author's own elaboration.

This allows us to present an analysis of the development of this sector in Poland over the years 2009-2013 according to number of entities registered in the REGON[343] (National Business Register Number) data base.[344] This register is a regularly updated data set containing information on national economic entities and enables the compilation of a list of addresses of operating entities.

However, it should be noted that this register has several weaknesses. First of all, it is usually based on the moment of entering the data into the register. For the majority of business entities this is the time of their initial registration, and later updates are relatively seldom undertaken. The next weakness is the registration of entities which, while figuring in the database, may not be actively engaged in business activities and their PKD (NACE) code may not reflect the actual state of affairs. However, despite these weaknesses REGON is the only nation-wide database which enables an initial identification of the number of entities in creative industries.

The number of entities in the creative sector registered in the REGON data base in the years 2009-2013 is presented below in Table 2.

Table 10. Number of entities in the creative sector entered into the REGON register in the years 2009-2013.

Area/status as of:	31 Dec. 2009	30 June 2010	31 Dec. 2010	30 June 2011	31 Dec. 2011	30 June 2012	31 Dec. 2012	30 June 2013	31 Dec. 2013
Poland	135,339	140,274	144,042	144,087	141,797	141,735	141,875	143,385	144,236
Voivodeship [Province, or region] (NUTS 2 region):									
Lower Silesia	10,000	10,453	10,776	10,888	10,866	10,896	10,983	11,002	11,054
Kujavia-Pomerania	5,663	5,771	5,851	5,862	5,747	5,741	5,691	5,735	5,807
Lublin	5,252	5,426	5,483	5,425	5,216	5,225	5,139	5,293	5,283
Lubuska	2930	3,036	3,086	3,061	2,956	2,947	2,885	2,862	2,852
Łódź	7,673	7,952	8,307	8,265	8,114	8,204	8,171	8,258	8,216
Małopolska	12,015	12,601	13,002	13,185	13,029	13,051	13,116	13,244	13,219
Mazovia	34,481	35,567	36,289	36,028	36,015	35,991	36,384	36,759	37,456
Opole	3,259	3,369	3,510	3,448	3,321	3,240	3,182	3,260	3,214
Subcarpathia	4,096	4,350	4,523	4,637	4,481	4,527	4,458	4,554	4,580
Podlasie	2,827	2,898	2,976	3,042	2,995	3,021	2,987	3,040	2,981
Pomerania	7,902	8,232	8,416	8,457	8,266	8,275	8,249	8,356	8,422
Silesia	14,122	14,725	15,331	15,267	14,891	14,841	14,832	14,936	14,977
Świętokrzyska	3,054	3,148	3,199	3,213	3,095	3,080	3,082	3,101	3,036
Warmia-Mazuria	3,226	3,367	3,449	3,458	3,302	3,274	3,245	3,310	3,299
Wielkopolska	12,627	12,930	13,316	13,293	13,229	13,255	13,409	13,541	13,688
West Pomerania	6,212	6,449	6,528	6,558	6,274	6,167	6,062	6,134	6,152

Source: REGON data.

During the period of analysis several interesting changes in the number of creative sector entities registered in the REGON can be observed:

- The total amount of creative sector entities in Poland increased by 6.57% from the end of 2009 till the end of 2013;

[343] The REGON register was established pursuant to Art. 41, paragraph 1, point 1 of the Public Statistics Act of 29 June 1995 (Dziennik ... 2012).

[344] The analysis was carried out on the basis of data kept by the Central Statistical Office – number of entities registered on following dates: 31st Dec. 2009, 30th June 2010, 31st Dec. 2010, 30th June 2011, 31st Dec. 2011, 30th June 2012, 31st Dec. 2012, 30th June 2013, and 31st Dec. 2013.

- The total amount of creative sector entities increased in almost all regions (voivodeships) exept Lubuska, Opole, Świętokrzyska and West Pomerania, which are regions with significant structural development problems;
- The regional distribution of entities is not balanced. The most popular area for the creative sector is the Mazovia region, owing to the crucial importance of the capital city of Warsaw, which means that nowadays Warsaw and the surrounding metropolitan area constitutes a key location for creative sector organisations. This is a very important outcome which makes Warsaw the hub of the Polish creative sector.
- The other popular regions with a high number of creative sector entities are: Silesia, Wielkopolska, Małopolska and Lower Silesia. These are regions with a strong economy and a significant metropolitan area, i.e. Katowice, Poznań, Kraków and Wrocław.

Not only is the regional distribution not balanced, but events in those regions with a significant number of entities are strictly concentrated in the big metropolitan areas. These differences are even greater when analysed by districts (poviats - sub-voivodeship districts). Those with the biggest number of entities of the creative sector entered into the REGON register are the capital city of Warsaw and the urban districts presented in Table 3.

Table 11. Districts (Poviats) in Poland with the largest number of creative sector entities in the years 2009-2013.

District (Poviat) status as of:	31 Dec. 2009	30 June 2010	31 Dec. 2010	30 June 2011	31 Dec. 2011	30 June 2012	31 Dec. 2012	30 June 2013	31 Dec. 2013
Capital city of Warsaw	23,036	23,611	24,121	23,867	23,980	24,056	24,431	24,740	25,285
City of Cracow	6,046	6,385	6,562	6,626	6,616	6,615	6,612	6,623	6,638
City of Poznań	4,791	4,873	5,017	5,035	5,101	5,123	5,242	5,275	5,383
City of Wrocław	4,509	4,675	4,814	4,965	5,001	5,029	5,116	5,107	5,144
City of Łódź	3,524	3,647	3,798	3,762	3,740	3,810	3,867	3,925	3,923
City of Gdańsk	2,587	2,677	2,694	2,702	2,689	2,716	2,728	2,741	2,805
City of Szczecin	2,538	2,635	2,712	2,714	2,642	2,567	2,551	2,542	2,581
City of Katowice	1,753	1,833	1,898	1,905	1,918	1,937	1,934	1,964	1,973
City of Bydgoszcz	1,708	1,753	1,766	1,757	1,717	1,681	1,679	1,675	1,696
City of Lublin	1,666	1,702	1,737	1,721	1,680	1,661	1,634	1,650	1,651

Source: REGON data.

As we can see, the number of creative sector entities is greatly diversified in individual districts (poviats). The capital city of Warsaw has by far the largest number of creative sector entities; they accounted for 17.02% of all entities registered as of 31 Dec. 2009 and 17.53% of those registered as of 31 Dec. 2013.

As already stated the creative sector consists of three sub-sectors - arts and crafts, creative production, and creative services. Changes in the number of entities registered in the REGON are presented below. First, the changes in the number of entities in the arts and crafts sub-sector in the REGON register over the years 2009-2013 are presented in Table 4.

Table 12. Number of entities of the sub-sector of arts and crafts (within the creative sector) entered into the REGON register in the years 2009-2013.

Area/ status as of:	31 Dec. 2009	30 June 2010	31 Dec. 2010	30 June 2011	31 Dec. 2011	30 June 2012	31 Dec. 2012	30 June 2013	31 Dec. 2013
Poland	60,654	60,367	60,494	58,893	56,542	55,871	55,192	55,753	55,302
Voivodeship [Province, or region]:									
Lower Silesia	4,144	4,201	4,242	4,161	4,094	4,050	4,050	4,089	4,052
Kujavia-Pomerania	2,842	2,784	2,785	2,716	2,619	2,578	2,547	2,566	2,589
Lublin	3,002	2,976	2,946	2,860	2,708	2,700	2,630	2,702	2,674
Lubuska	1,546	1,526	1,527	1,475	1,400	1,385	1,349	1,327	1,312
Łódź	3,550	3,570	3,641	3,506	3,389	3,407	3,342	3,345	3,314
Małopolska	5,143	5,108	5,156	5,075	4,874	4,822	4,801	4,857	4,806
Mazovia	13,091	12,968	12,885	12,375	12,131	11,964	11,882	11,942	12,024
Opole	1,836	1,834	1,857	1,794	1,707	1,635	1,600	1,633	1,609
Subcarpathia	2,170	2,216	2,261	2,256	2,108	2,139	2,072	2,158	2,122
Podlasie	1,397	1,348	1,350	1,335	1,280	1,306	1,274	1,299	1,253
Pomerania	3,456	3,466	3,433	3,395	3,208	3,183	3,106	3,140	3,116
Silesia	6,399	6,412	6,502	6,312	6,010	5,893	5,824	5,867	5,796
Świętokrzyska	1,711	1,697	1,680	1,649	1,569	1,549	1,546	1,548	1,504
Warmia-Mazuria	1,681	1,675	1,677	1,636	1,553	1,526	1,520	1,552	1,540
Wielkopolska	5,628	5,497	5,508	5,363	5,124	5,012	5,014	5,032	4,946
West Pomerania	3,058	3,089	3,044	2,985	2,768	2,722	2,635	2,696	2,645

Source: REGON data.

Over the studied period several outcomes can be observed for this sub-sector:

- The number of entities in this sub-sector declined in all regions of Poland;
- Regions with the greatest decline in the number of entities include: Lubuska, West Pomerania, Świętokrzyska and Wielkopolska, the latter of which is a bit astonishing as it includes the municipality of Poznań.
- Nevertheless the regional distribution of sub-sector entities is again unbalanced, with a strong predominance of the Mazovia region (Warsaw municipality).

The second sub-sector is the creative production. Table 5 shows changes in the REGON-registered number of entities in this sub-sector over the years 2009-2013.

Table 13. Number of entities of the sub-sector of creative production (within the creative sector) entered into the REGON register in the years 2009-2013.

area/status as of:	31 Dec. 2009	30 June 2010	31 Dec. 2010	30 June 2011	31 Dec. 2011	30 June 2012	31 Dec. 2012	30 June 2013	31 Dec. 2013
Poland	20,113	21,115	21,596	21,611	20,984	20,885	20,774	20,812	20,809
Voivodeship [Province, or region]:									
Lower Silesia	1,323	1,366	1,381	1,379	1,361	1,368	1,367	1,323	1,348
Kujavia-Pomerania	844	870	842	822	806	792	769	777	761
Lublin	638	682	671	667	616	617	604	628	616
Lubuska	326	345	363	347	335	314	305	286	284
Łódź	1,039	1,105	1,130	1,143	1,084	1,079	1,062	1,072	1,040
Małopolska	1,708	1,839	1,882	1,902	1,844	1,841	1,827	1,843	1,813
Mazovia	7,359	7,673	7,927	7,927	7,842	7,837	7,938	7,976	8,110
Opole	360	373	390	380	360	354	341	351	346
Subcarpathia	447	478	477	482	451	455	429	431	417
Podlasie	330	339	350	352	335	340	325	326	311
Pomerania	1,022	1,098	1,109	1,106	1,053	1,046	1,023	1,018	1,024
Silesia	1,784	1,875	1,969	1,965	1,888	1,853	1,837	1,817	1,799
Świętokrzyska	383	383	379	390	356	346	343	343	330
Warmia-Mazuria	348	388	401	411	361	362	350	362	347
Wielkopolska	1,491	1,560	1,577	1,571	1,577	1,572	1,572	1,587	1,609
West Pomerania	711	741	748	767	715	709	682	672	654

Source: REGON data.

Over the studied period several outcomes can be observed for this sub-sector:

- The number of entities in this sub-sector increased slowly in Poland;
- Nevertheless different changes could be observed at the regional level. Significant growth was observed in the regions of Mazovia, Wielkopolska and Małopolska. Rapid declines occurred in the regions of Lubuska and Świętokrzyska, while stability occurred in the regions of Lower Silesia, Łódź, Pomerania, and Silesia.
- The regional distribution of sub-sector entities is again unbalanced, with the strong predominance of the Mazowsze region (Warsaw municipality).

The number of entities of the third sub-sector (creative services) entered in the REGON register over the study period are presented below in Table 6.

Table 14. Number of entities of the sub-sector of creative services (within the creative sector) entered into the REGON register in the years 2009-2013.

Area/ status as of:	31 Dec. 2009	30 June 2010	31 Dec. 2010	30 June 2011	31 Dec. 2011	30 June 2012	31 Dec. 2012	30 June 2013	31 Dec. 2013
Poland	54,572	58,792	61,952	63,583	64,271	64,979	65,909	66,820	68,125
Voivodeship [Province, or region]:									
Lower Silesia	4,533	4,886	5,153	5,348	5,411	5,478	5,566	5,590	5,654
Kujavia-Pomerania	1,977	2,117	2,224	2,324	2,322	2,371	2,375	2,392	2,457
Lublin	1,612	1,768	1,866	1,898	1,892	1,908	1,905	1,963	1,993
Lubuska	1,058	1,165	1,196	1,239	1,221	1,248	1,231	1,249	1,256
Łódź	3,084	3,277	3,536	3,616	3,641	3,718	3,767	3,841	3,862
Małopolska	5,164	5,654	5,964	6,208	6,311	6,388	6,488	6,544	6,600
Mazovia	14,031	14,926	15,477	15,726	16,042	16,190	16,564	16,841	17,322
Opole	1,063	1,162	1,263	1,274	1,254	1,251	1,241	1,276	1,259
Subcarpathia	1,479	1,656	1,785	1,899	1,922	1,933	1,957	1,965	2,041
Podlasie	1,100	1,211	1,276	1,355	1,380	1,375	1,388	1,415	1,417
Pomerania	3,424	3,668	3,874	3,956	4,005	4,046	4,120	4,198	4,282
Silesia	5,939	6,438	6,860	6,990	6,993	7,095	7,171	7,252	7,382
Świętokrzyska	960	1,068	1,140	1,174	1,170	1,185	1,193	1,210	1,202
Warmia-Mazuria	1,197	1,304	1,371	1,411	1,388	1,386	1,375	1,396	1,412
Wielkopolska	5,508	5,873	6,231	6,359	6,528	6,671	6,823	6,922	7,133
West Pomerania	2,443	2,619	2,736	2,806	2,791	2,736	2,745	2,766	2,853

Source: REGON data.

Over the studied period several outcomes can be observed for this sub-sector:

- The number of entities in this sub-sector increased both in Poland in general and in all regions.
- The regions with the highest growth ratio over the studied period include: Subcarpathia, Wielkopolska, Podlasie and Małopolska.
- Regional distribution is again unbalanced, with the strong dominance once again of the Mazovia region (Warsaw municipality).

A more specific study demonstrates the number of entities in various specific areas of activity of each sub-sector of the creative sector (see Table 7 below).

Table 15. Number of entities of the creative sector in Poland by area of activity in the years 2009-2013.

Status as of:	31 Dec. 2009	30 June 2010	31 Dec. 2010	30 June 2011	31 Dec. 2011	30 June 2012	31 Dec. 2012	30 June 2013	31 Dec. 2013
sub-sector of arts and crafts	60,654	60,367	60,494	58,893	56,542	55,871	55,192	55,753	55,302
visual arts	47,768	47,142	46,959	45,369	43,322	42,701	42,069	42,415	41,937
performing arts	9,824	10,154	10,475	10,480	10,199	10,134	10,075	10,268	10,292
national heritage, libraries and archives	3,062	3,071	3,060	3,044	3,021	3,036	3,048	3,070	3,073
sub-sector of creative production	20,113	21,115	21,596	21,611	20,984	20,885	20,774	20,812	20,809
programming	165	229	282	321	329	342	374	404	418
publishing	10,486	10,939	11,190	11,056	10,868	10,753	10,765	10,599	10,605
film and TV production	7,462	7,795	7,842	7,962	7,512	7,527	7,391	7,574	7,526
radio and music production	2,000	2,152	2,282	2,272	2,275	2,263	2,244	2,235	2,260
sub-sector of creative services	54,572	58,792	61,952	63,583	64,271	64,979	65,909	66,820	68,125
fashion and design	5,359	6,187	7,006	7,470	7,639	7,928	8,249	8,766	9,322
advertising and related activity	31,232	32,521	33,648	34,176	34,443	34,698	35,244	35,505	36,145
architecture and interior design	17,981	20,084	21,298	21,937	22,189	22,353	22,416	22,549	22,658

Source: REGON data.

In the creative industries sector, over the studied period the areas of activity showing the highest growth are programming, fashion and design, and architecture and interior design, all of which fall within the sub-sector of creative services. Stable growth can be observed in the following sectors: publishing, film and TV production, performing arts, national heritage, libraries and archives. A decline was observed in the visual arts.

The change in the number of creative sector entities is determined by various factors which influence their growth.

Determinants of the development of the creative sector in Poland

The word “diversity” most correctly describes the initial problem observed in the creative sector and the one which influences the determinants of their development in Poland. The Polish creative sector seems to be heavily differentiated in following areas (see Figure 1 below).

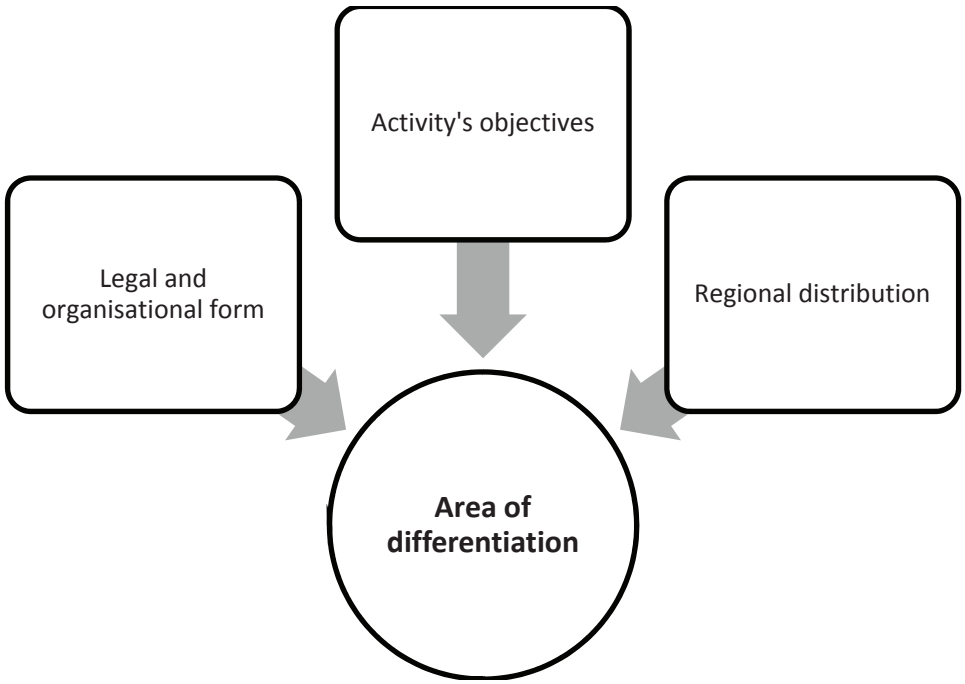


Figure 1. Areas of differentiations for the creative sector in Poland
Source: author’s own elaboration.

The creative sector consists of many different organizational forms and in each field of activity one can observe the coexistence of various enterprises (i.e. freelancer, entrepreneurs, civil law partnership, limited liability company), public entities (i.e. at the national, regional and local levels) and nongovernmental organizations (i.e. associations, foundations). This unique coexistence is becoming an ever more important part of the Polish economy.

The second area of differentiation concerns the objectives of the various entities. The creative sector consists of organizations which focus on profit maximization (mostly business entities) as well as organizations with other-than-profit aims. For instance public organizations financed by public funds cannot accumulate profits; they have to focus on providing cultural products which, according to the Constitution of the Republic of Poland, should be available free of charge, whereas nongovernmental organizations can choose non-profit or not-for-profit models for their activities.

The third area of differentiation is the regional distribution of entities, with the afore-noted strong domination of municipalities and the leadership of the Warsaw municipality.

While these areas of diversity should bring about significant opportunities for the development of the creative sector, in practice they constitute impediments to the development of a coherent economic policy towards them.

The first significant determinant can be describe as the orphan syndrome. Given the wide range of activities and forms and the coexistence of different activity models, it is extremely difficult to establish a national level organization responsible for the coordination of national policy towards the creative sector. Regulations concerning the various entities are prepared not only by Ministry of Culture and National Heritage but also by the Ministry of Economy (as a significant part of the creative sector entities consist of enterprises); the Ministry of Labor and Social Policy (as the department responsible for nongovernmental organizations); and the Ministry of Infrastructure and Regional Development (as the department responsible for the definition and implementation of the cohesion policy, in which creative sector can be an important beneficiary); as well as many others. This variegated situation is repeated at the level of both regions and towns.

The resulting obtuse situation leads to various problems related to the definition and elaboration of a comprehensive policy towards the creative sector. Such a policy first requires a comprehensive identification and mapping of the creative sector. So far in Poland the most relevant analyses are available at the regional/town level, where a single contracting party can be identified. On the other hand at the national level at least a few mapping projects can be identified, which however have a different focus, depending the department doing the contracting. Thus the Ministry of Culture and National heritage focuses on that part of creative sector which corresponds with cultural activities, and the Ministry of Economy focuses on the creative sector from the point of view of business entities. As mentioned, the successful mapping of this sector is extremely difficult and requires cross-collaboration between the different departments (which is very poorly developed). The unbalanced regional distribution of the creative sector and the strong domination of metropolitan areas does however help in arranging bottoms-up strategies towards the creative sector. Almost all key cities in Poland have perceived and appreciated the impact of the creative sector on local development. For instance, the Warsaw Municipality decided to concentrate on five key areas of activity towards the creative sector:

1. Build up recognition of the sector – in which it is going to focus on a permanent and ongoing analysis of the economic situation of the creative sector;[345]

[345] Research commenced in 2015, using the web questionnaire available on following website: http://ekonomiawkulturze.pl/wopk .

2. Provide support for the internationalization of creative sector entities – in which it is going to help in establishing long term international relations for creative organizations;
3. Strive for a continuous increase in demand for creative sector products – in which it is going to both promote products manufactured by the sector and, through education, influence changes in the purchasing patterns of buyers;
4. Promote entrepreneurship in the creative sector – by a wide range of Municipality Office activities such as programs of grants for entrepreneurs, providing office space, and improving the quality of services delivered by business organizations in the creative sector environment;
5. Strengthen accessibility to key resources, which from the point of view of the creative sector are mainly capital, human resources, and knowledge.[346]

However, establishing a coherent strategy requires effective inter-departmental collaboration and cross-cooperation, which as mentioned is very difficult to implemented at the national/regional levels.

An important determinant is the lack of a coherent system of grants for the creative sector, which seems to be an additional outcome of its differentiations. Organizations which are active in this particular part of economy can receive grants from many sources, however the important factor is the relation of such grants to the organization's objectives (Figure 2).

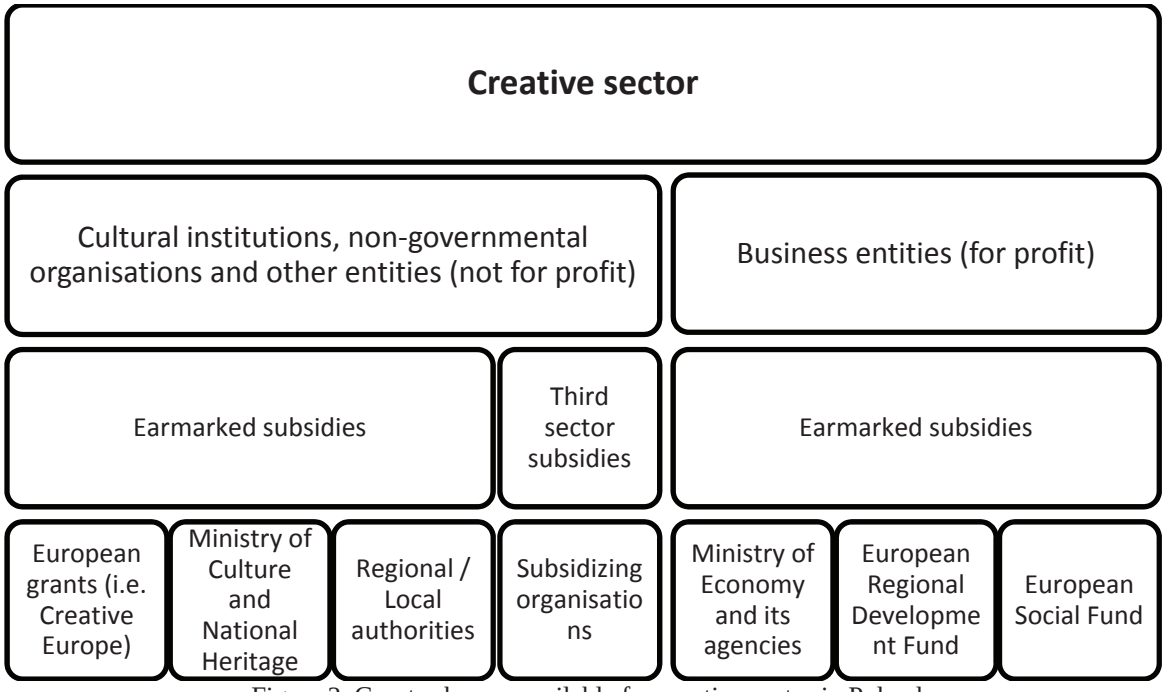


Figure 2. Grant schemes available for creative sector in Poland
Source: author's own elaboration.

This complex and sophisticated structure of grants requires not only excellent fund-raising skills, but also adequate organisational forms. Thus the contemporary creative sector entrepreneur very often has to establish a particular holding of different organisations in which each has unique subsidy opportunities.

Additional significant factors which determine the development of the creative sector are related to the educational backgrounds of members of the sector, who are mostly graduates of cultural universities or schools which do not prepare their students for economic activity, focusing

[346] According to "Flowchart of support for creative entrepreneurship from the perspective of a possible for use by local authorities" Ecorys Polska Sp. z o.o., Warsaw 2015.

instead on the transfer of knowledge from a specific art discipline. The lack of specific required competences of creative sector entrepreneurs is often mentioned. They seldom have skills in areas indispensable for economic activity, such as legal and tax issues, the fund-raising skills (and not only public funds) as well as business planning skills. An additional and related problem is associated with the education of consumers of the creative sector. Factors determining the consumption of cultural services (i.e. products of the creative industry) are not limited to a household's financial status, but also include the level of the cultural education of its members, their actual and aspired social status, leisure resources, etc. These 'other factors' make the demand for products of the creative sector highly unpredictable (Kasprzak 2013: 94).

The list of problems facing entities of the creative industry differs little in regional terms. For example, in Kujavia-Pomerania and Pomerania their key problems are: lack of funds for development and daily operation, strong competition, a poor and unpredictable demand, red tape and legal provisions, as well as lack of support from institutions in the business environment (Grochowski et al. 2012). The problems indicated by entities from Silesia include, first of all, a limited demand for such services, difficulties with market survival resulting from this limited demand, and lack of management-related knowledge, as well troubles with financing an entity's current development (Buchholtz et al. 2012). A crucial problem seems to be the low level of cooperation in this sector, which is not conducive to building a wider product offer nor, ultimately, to the development of this industry.

Impact of the creative sector on the Polish economy

Being part of the socio-economic system, the creative sector can be perceived as a stimulus for the economic development of regions. Its impact on the national economy can be identified with respect to three types of effects: direct, indirect, and induced.

Direct effects include:

- job creation – most entities operating in the creative sector deliver services to their customers, so the coincidence of the time and place of performance with the time and place of consumption (purchase), which is typical for a service sector in a regional economy, means the creation of jobs, mostly in the country (or region). Moreover, the inability to store cultural services and the often individual and local nature of a service and of its provision requires specific, often high, qualifications from the employees/entrepreneurs;
- complementarity – the creative sector is complementary to other sectors of the economy, which means that it creates a climate conducive to the development of other areas of the national economy. Creative industries usually attract investments in catering, tourism and trade;
- tax revenues – an actively operating branch of creative industries contributes to more taxes flowing into the central and local budgets, e.g. the visitors' tax, market dues, real-estate taxes, personal and corporate income taxes, and the value added tax.
- *Indirect effects* include the following factors, which are either non-measurable or very difficult to assess objectively:
- a promotional factor that makes a given area (country or region) distinguishable from other places in the offer that it addresses to tourists, investors or people looking for a place to live;

- strengthening the attractiveness of a location, which enables a country or region to attract entities that make use of the creativity potential and look for a wide supply of leisure-related services for their employees;
- a social activating factor, by creating new market niches not only for local entrepreneurs but also for non-profit, e.g. socially-oriented, activities;
- a revitalising factor for the local districts to stimulate social transformations and inclusion; and
- a socialising factor – inasmuch as a part of creative sector activities is addressed to local societies often facing social exclusion problems, their activity can lead to reintegration.

The third group - *induced effects* - involves growth in expenditures caused by an increase in a region's revenues (e.g. wages of the people employed) resulting from the activity of the creative sector entities. This is due to the consumer expenses of those working in this sector and living in the region. Another effect is the financial resources that remain in the region and make room for further economic activities, an effect defined by the economist Keynes as the Keynesian multiplier.

Taking into account the effects described above, it may be said that entities of the creative sector can contribute to the creation of a solid foundation for the development of a country and to building its competitive advantage in the European economy.

Summary

The highly diversified sector of creative industries can play an important role in the development of the Polish economy. The impact of this sector, which can be defined as a combination of three types of influences, can help ensure stable growth in a regional economy. The Polish creative sector has a significant growth ratio, and due to its cooperation potential can be an important actor in the Polish economy. As globalisation today requires a switch from a labour-oriented into an innovation-oriented economy, the creative sector can help the growth of cross-branch innovations and can stimulate the development of the new economy in Poland.

References

1. Bombol M., 2008. *Czas wolny jako kategoria diagnostyczna procesów rozwoju społeczno-gospodarczego* (Leisure time as a diagnostic category of socio-economic development). Oficyna Wydawnicza SGH, Warszawa.
2. Buchholtz S., Kuskowski J., Lewandowski P., Magda I., Ośka M., Pospieszyńska-Burzyńska J., Regulski A., Sekuła E. A., Ślęzak-Tazbir W., Zawistowski J., Zub M., 2012. *Analiza potencjału rozwojowego funkcji metropolitalnych obszarów aglomeracji miejskich województwa śląskiego będących ośrodkami wzrostu gospodarczego województwa śląskiego w kontekście procesów zachodzących na regionalnym rynku pracy – kultura i przemysły kreatywne* (Analysis of the development potential of metropolitan functions of urban agglomerations - centres of the economic growth of the voivodeship of Silesia in the context of processes taking place on the regional labour market: culture and creative industries). Instytut Badań Strukturalnych, Warszawa.
3. Dąbrowska A., 2008. *Rozwój rynku usług w Polsce – uwarunkowania i perspektywy* (Development of the service market in Poland: determinants and prospects). Oficyna Wydawnicza SGH, Warszawa.
4. Debord G., 1967. *La société du spectacle* (The society of the spectacle). Gallimard, Paris.
5. Department for Culture, Media and Sport, 2001. *Creative Industries Mapping Document*. London.

6. Grochowski M., Dudek-Mańkowska S., Fuhrmann M., Zegar T., 2012. *Sektor kreatywny w województwach pomorskim i kujawsko-pomorskim – raport z badań* (The creative sector in Pomerania and Kujavia-Pomerania: a research report). Agencja Rozwoju Pomorza, Gdańsk.
7. Janoś-Kresło M., 2002. *Usługi społeczne w procesie przemian systemowych w Polsce* (Social services in the process of the systemic transformation in Poland). Oficyna Wydawnicza SGH, Warszawa.
8. Kasprzak R. 2013. *Przemysły kreatywne w Polsce – uwarunkowania i perspektywy* (Creative industries in Poland: determinants and prospects). Wydawnictwo Kamon Consulting Warszawa.
9. UNCTAD, 2010. *Creative economy report 2010: A feasible development option*. New York, Geneva.

ASSESSING THE IMPACT OF INNOVATION SUPPORT IN AN EMERGING INNOVATION SYSTEM. EVIDENCE FROM ECUADOR

Juan Fernández-Sastre[a] and Fernando Martín-Mayoral[a]*

[a] Latin American Faculty of Social Sciences (FLACSO), Quito, Ecuador.

** Correspondence to: Juan Fernández Sastre, Facultad Latinoamericana de Ciencias Sociales (FLACSO-Ecuador), La Pradera E7-174 y Av. Diego de Almagro, Quito, Ecuador. E-mail: jfernandez@flacso.edu.ec*

Abstract

Using data from the Ecuadorian Survey of Innovation, this paper compares the effect of six public programs (personal training, R&D support, technology adoption and management, production certificates, entrepreneurship support and export promotion) on firms' R&D and innovation inputs. To control for the endogeneity of program-participation, we follow the methodology proposed by Leuven and Oosterbeek (2008). The idea is to narrow down the comparison group of participants by only taking into account the firms that applied to at least one program but were not accepted for any. This procedure creates a similar comparison group in order to control for selection bias. Results show that the positive effect of programs is usually a consequence of firms' unobservable characteristics. After narrowing down, only personal training and technology adoption and management programs contribute to an increase in R&D intensity, while personal training and export promotion programs increase innovation expenditures.

Keywords: *support programs; innovation capabilities; emerging innovation systems; impact assessment.*

1. Introduction

Developing countries' innovation capabilities, networks and institutions are in the early stages of development compared to those of countries with advanced or mature innovation systems (Arocena and Sutz, 2000; Chaminade and Vang, 2008; Chaminade et al., 2009; Chaminade et al., 2010; Intarakumnerd and Chaminade, 2011). This suggests that innovation policies should deal with different systemic problems[347] from those of the developed world. Hence, in developing countries, policies supporting private innovation go beyond R&D subsidies. However, as many developing countries do not conduct innovation surveys, hypotheses regarding the effectiveness of innovation support programs have not been tested (Chaminade et al., 2010). This paper aims to fill this gap by analyzing the impact of different innovation support programs on firms' R&D and innovation inputs in the context of an emerging innovation system such as that of Ecuador.

Ecuador is a low-middle income country, specializing in low value-added activities and characterized as a supplier of oil and raw materials in the international market. However, its government aspires to change the productive specialization through the commitment to incorporate technology, knowledge and R&D in the productive sector (SENPLADES, 2012). Proof of this commitment are the various public programs created to promote private R&D and innovation activities and the launch of the first Ecuadorian Survey of Innovation in 2013 ENAI (Encuesta Nacional de Actividades de Innovación 2013)[348].

Drawing from ENAI micro data, this paper examines the impact of six Ecuadorian support programs (*personal training*, *R&D support*, *technology adoption and management*, *production certificates*, *entrepreneurship support* and *export promotion*) on firms' R&D and innovation inputs. A central methodological aspect in innovation policy evaluation is the issue of endogeneity, as the allocation of innovation support programs between firms is not random (Görg and Strobl, 2007; Clausen, 2009). In reality, a firm that participates in a program has first selected itself as a candidate and then it has been chosen by a public agency as a recipient of the program.

Innovation policy studies have documented both sources of selection bias. First, there is self-selection as innovative firms are usually more likely to apply to programs (Alvarez, 2004; Radicic and Pugh, 2013). Second, there is selection by the government as recipients of programs might be chosen because they represent more promising candidates or because governments support firms with less promising projects (Wallsten, 2000; Curran and Storey, 2002; Lindstrom and Heshmati, 2005; Greene, 2009; Cantner and Kösters, 2012, 2015). As a result firms that participate in programs are unlikely to have the same characteristics as other firms. Therefore, a regression of firms' R&D and innovation inputs on program participation will not produce a causal effect but suffer from so-called selection bias.

If both selection processes are influenced by unobservable characteristics of the firms that also condition their R&D and innovation expenditures, program participation will be correlated with the error term and therefore suffer from endogeneity bias. Unobservable characteristics such as cash-flow (Armour and Teece, 1981; Link, 1981; Antonelli, 1989; Kraft, 1989; Hao and Jaffe, 1990; Himmelberg and Petersen, 1994), level of diversification (Nelson, 1959; Scherer, 1965; Grabowski, 1968; Scott and Pascoe, 1987), information processing capabilities (Henderson, 1988), other activities related to the innovation process (Teece, 1986, 1987; Mowery and Rosenberg, 1989), the product development organization (Rosenberg and Steinmueller, 1988; Mowery and Rosenberg, 1989), the attention to customers' needs (Rothwell et al., 1974), the effectiveness of

[347] A systemic problem is the inability of the innovation system to support the creation, absorption, retention, use and dissemination of economically useful knowledge through interactive learning or in-house R&D investments (Carlsson and Jacobsson, 1997; Norgren and Hauknes, 1999; Smith, 2000; Woolthuis et al., 2005; Chaminade and Edquist, 2006).

[348] http://anda.inec.gob.ec/anda/index.php/catalog/348

marketing (Rothwell et al., 1974; Teece, 1986, 1987; Mowery and Rosenberg, 1989), the management of the development process, the ability to use external technology, the ability to communicate with the scientific community, the division of innovative labor or project management in the hands of experts (Rothwell et al., 1974) all influence firms' R&D and innovation expenditures (Cohen and Klepper, 1992, 1996; Cohen, 1995) and may also affect firms' and government selection decisions.

The recent empirical literature on innovation policy evaluation contains several approaches when addressing selection bias. Some studies have used two-steps Heckman selection models (Busom, 2000; Hussinger, 2008; Huergo and Moreno, 2014); others have used instrumental variables (Lichtenberg, 1988; Wallsten, 2000; Suetens, 2002; Jaffe, 2002; González et al., 2005; Binelli and Maffioli, 2006; Clausen, 2009); some have employed difference-in-differences estimators when panel data are available (Lach, 2002; Hægland and Møen, 2007); while most studies apply non-parametric matching methods (Almus and Czarnitzki, 2003; Czarnitzki and Fier, 2002, 2003; Duguet, 2004; González and Pazó, 2008; Cantner and Kösters, 2015) or combine non-parametric propensity to score matching with difference-in-differences (Blundell and Costa Dias, 2000; Görg and Strobl, 2007).

This paper uses an alternative approach to estimate the impact of support programs which was proposed by Leuven and Oosterbeek (2008) in their study of private-sector training effects on wages. The idea is to narrow down the comparison group in order to make it more similar to participants. Narrowing down is in spirit not very different from matching as they both create a comparison group comparable in a number of observable covariates. However, while propensity to score matching (Rosenbaum and Rubin, 1983) is normally based on a whole range of covariates, the narrowing down approach singles out specific variables based on a credible exclusion restriction (Leuven and Oosterbeek, 2008).

The rest of the paper is organized as follows: Section 2 reviews how the different features of support programs can have a different impact on the R&D and innovation activities of firms embedded in emerging innovation systems. Section 3 describes the data and the narrowing down methodology. Section 4 displays and discusses the results. Finally, we conclude in Section 5.

2. Literature review

2.1. Innovation support programs

Public support for private innovation is justified on the assumption that, in the presence of knowledge externalities and imperfect credit markets, firms tend to underinvest in R&D activities (Arrow, 1962; Stiglitz, 1988). As a result, a variety of public agencies provide subsidies for private R&D activities (Blanes and Busom, 2004; Zúñiga-Vicente et al., 2014) in most developed economies (Eurostat, 2009). In these countries, as innovation support programs basically consist on R&D subsidies, the majority of the innovation policy studies aggregate programs to analyze the effectiveness of "the subsidy environment" (Canter and Kösters, 2015) and only few distinguish between the public agencies that provide the subsidies (Clausen, 2009; Huergo and Moreno, 2014).

In developing countries, however, implementing policies to foster private R&D activities is a more challenging task as firms lack sufficient technological and managerial capabilities that are first needed to develop R&D activities (Chaminade et al., 2010). Consequently, R&D subsidies are not the only policy instrument that support private R&D and innovation activities. In developing countries, innovation support programs are also implemented to enhance firms' technological or managerial capabilities whereby no reasonable incentive structure would be sufficient to motivate private actors to overcome major technological lags (Cimoli et al., 2009). These programs may also induce firms to invest in R&D and innovation activities as the expansion of these capabilities

generates a learning process through which firms get involved in these activities (OCDE, 2005). Moreover, given that different support programs may entail different effects on private R&D and innovation investment (Clausen, 2009); an adequate evaluation of innovation support programs in developing countries requires disaggregation.

Studies evaluating the effectiveness of R&D subsidies present heterogeneous results[349]. R&D subsidies are considered to be effective if they stimulate private R&D investment beyond the amount of the subsidy (i.e. the crowding-in effect). On the contrary, they would be less effective if the firms use the subsidy to finance R&D projects which would have been undertaken without the public support (i.e. the crowding-out effect) (David et al., 2000). As Zúñiga-Vicente et al. (2014) indicate, besides the methodological differences between these studies, factors not considered such as experience in applying for subsidies, time lags between subsidies and R&D effort, financial constraints, the composition of research and development activities, the subsidy amount and the sources of funding may explain when the crowding-in or the crowding-out effects are more likely to occur.

This paper argues that besides the abovementioned factors, assessing the impact of different innovation support programs requires not only a clear understanding of the design of the programs (European Commission, 2009; Huergo and Moreno, 2014), but also of the innovation system in which firms are embedded and programs are implemented (Johnson and Lundvall, 2000). Consequently, Section 2.2 examines the characteristics of the Ecuadorian innovation system and the features of its innovation support programs.

2.2. The Ecuadorian innovation system and program features

Ecuador has relatively simple production structures, fragmented and disarticulated innovation capabilities and it is specialized on statics comparative advantages (Cimoli et al., 2009). In Ecuador, national spending on R&D in 2011 was $269.47 million which represents 0.35% of its GDP (INEC and SENESCYT, 2011). However, the government has proposed to increase this percentage up to 1.5% in the coming years based on the idea that the Ecuadorian economy's patterns of allocation of resources might entail negative long-term effects in terms of demand elasticities of the goods Ecuador is able to produce and of the innovative potential associated with them.

In Ecuador, as in other Latin American countries, innovation is highly informal and R&D activities are not clearly articulated with firms' strategies (Arocena and Sutz, 2002). As the Ecuadorian innovation system is still at an early stage of development, the few existing innovative firms are characterized by performing in-house R&D and innovation activities because they still consider that ideas for innovation are mainly an internal concern (Arocena and Sutz, 2002). Firms give little importance to external relations with universities and public research centers, and networks are frequently based on ties with foreign firms which are not involved in formal R&D activities given the weakness of technological activities in the host country (Patel and Vega, 1999; Le Bas and Sierra, 2002). As Chaminade et al. (2009) indicate, unless there is substantial indigenous competence building, the multinational firms mainly locate routine activities in developing countries. Nevertheless, the Ecuadorian government is trying to strengthen the education system and scientific research through the building of new universities and research centers, together with a profound reform of the higher education system and several policies to promote firms' R&D and innovation activities.

In order to understand innovation policy in developing countries, we need to adopt a broader concept of innovation. Innovation does not only relate to formal R&D but also to the absorption of

[349] See Zúñiga-Vicente et al. (2014) for a survey.

external technology (Chaminade et al., 2010). Thus non-R&D inputs such as design, engineering development, experimentation, learning and marketing are also fundamental for the innovation process (Smith, 2005). In fact the evidence indicates that in the majority of sectors, the most important inputs for innovation are investments in capital related to the introduction of new products (STEP 1997; Evangelista et al., 1998; Evangelista, 1999; Smith, 2005). These inputs are even more relevant for developing countries because in these economies, innovation is mostly related to the absorption of technology and competence building rather than the introduction of science-based innovations (Viotti, 2002; Chaminade et al., 2010). In emerging innovation systems, firms are not yet able to produce radical innovations, but they are accumulating the competences and capabilities that are needed to engage in different forms of interactive learning and innovation (Chaminade et al., 2009). Therefore innovation policies in developing countries support several firms' activities beyond those associated with formal R&D as the majority of the firms have not yet developed R&D capabilities.

R&D capabilities refer to firms' ability to reframe the present knowledge and produce new knowledge (Kogut and Zander, 1992; Henderson and Cockburn, 1994; Fleming, 2001). They include R&D planning, internal R&D capability, external cooperative R&D capability, R&D coordination capability and intellectual property management (Dickson and Fang, 2008). However, firms are unlikely to develop them until they have the ability to interpret the current state of the art in order to absorb, process and change a given technology (Chaminade et al., 2010). This ability to make effective use of technological knowledge is called technological capability (Westphal et al., 1985). If a firm is unable to decide on selection of equipment processes it will also be unlikely to produce new knowledge (Lall, 1992). Not surprisingly, the importance of engineering and design capabilities in the early stages of development, when the absorption of technology is fundamental, has been largely highlighted in the literature (Lall, 1992; Bell and Pavitt, 1995; Chaminade et al., 2009).

Technological capabilities do not only allow firms to choose and use technology (Gomel and Sbragia, 2006; Rush et al., 2006) but also to create new methods, processes, techniques and products (Afuah, 2002; Zhou and Wu, 2010). This occurs as technology adoption generates a learning process through which firms internalize new knowledge and get involved in R&D and innovation activities (OCDE, 2005). This learning process can involve acquisition, imitation, adaptation, modification or the development of a new set of knowledge and technical systems that requires investment in R&D and innovation activities (Zawislak et al., 2012). These technological capabilities, needed to generate technical change, include skills, knowledge and experiences (Bell and Pavitt, 1995).

Once firms have developed technological capabilities, they can build up managerial capabilities (Chaminade and Vang, 2008) to integrate and combine productive capabilities of human and physical resources (Zawislak et al., 2012) which allow firms to adopt flexible structures that facilitate doing, using and interacting modes of learning (Jensen et al., 2007; Lundvall, 2007). Thereafter firms can construct the R&D capabilities that are decisive for innovation.

In the context of an emerging innovation system, Ecuador has several programs to support firms' R&D and innovation activities. Note that we follow the same aggregation of programs proposed in the ENAI which distinguishes between six categories: *personal training, R&D support, technology adoption and management, production certificates, entrepreneurship support* and *export promotion*. Although some of these programs are not directly related to R&D or innovation, they may enhance firms' technological and managerial capabilities which may generate a learning process through which firms get involved in R&D and innovation activities (Afuah, 2002; OCDE, 2005; Zhou and Wu, 2010).

Personal training programs are intended to strengthen the technical capabilities of workers through the use of information and communication technologies and also include several technical training programs which are sector specific. Firms given grants for these programs can be subsidized up to $180,000 for these purposes (SETEC, 2015). The technical qualification of the staff is a crucial aspect for the development of technological capabilities (Bell and Pavitt, 1995) which may induce firms to get involved in R&D and innovation activities (OECD, 2005).

R&D support programs provide subsidies for private R&D activities related to the introduction of new products and processes. Thus they are designed to allow firms to exploit their R&D capabilities. These programs represent the R&D subsidy policies that are typically evaluated in the empirical literature.

Technology adoption and management programs are designed to improve firms' productivity through the replacement of obsolete machinery and equipment and to increase capital intensity through technical support, credit lines and subsidies. Some of these programs also give assistance on management. Therefore these programs are intended to enhance firms' technological and managerial capabilities which may induce firms to invest in R&D and innovation projects.

Production certificate programs include different quality production certificates for diverse economic activities. These programs are not directly related to promoting firms' technological, managerial or R&D capabilities; nor do they provide technical support, training, finance or subsidies; they exclusively grant production quality certificates for those firms that fulfill certain technical, commercial, environmental and social requirements. However, they are still considered innovation support programs because firms fulfilling these requirements may have absorbed technology and knowledge which could lead to a greater R&D and innovation effort.

Entrepreneurship support programs support business ventures through business incubators, seed money, information services, business-consulting, the creation of environments to establish trade relations, the promotion of commercial partnerships, information about suppliers and public demand for local producers. Although these programs are not directly associated with technology or R&D, they support the building of managerial capabilities which could lead to the emergence of innovation activities.

Finally there are *export promotion* programs that offer instruments such as trade missions or training for exporting. Although these policies are neither directly related to R&D or technology, we still consider them as innovation support programs because there are both theoretical works (Atkeson and Burstein, 2010; Impullitti and Licandro, 2010) and empirical evidence (Kuncoro, 2012; Hahn and Park, 2012; Ito, 2012; Mairesse et al., 2012) showing that exports induce firms to increase R&D and innovation effort.

We aim to evaluate which programs lead to an increase in private R&D and innovation expenditures. Moreover, given that in emerging innovation systems the first crucial capabilities to be enhanced are not R&D but technological and managerial capabilities (Bell, 1984; Lee et al. 1988; Bell and Pavitt, 1995; Lall, 1992; Figuereido, 2001; Bell, 2007; Chaminade et al., 2009; Chaminade et al., 2010), we expect greater positive effects for programs supporting technological and managerial capabilities than those designed to exploit R&D capabilities.

3. Data, Methodology and Descriptive Statistics

The empirical analysis uses data from the Ecuadorian Survey of Innovation 2013. The survey is carried out by the Ecuadorian National Statistics Institute INEC (Instituto Nacional de Estadística y Censos) and the Secretariat for Higher Education, Science, Technology and Innovation

SENESCYT (Secretaría de Educación Superior, Ciencia, Tecnología e Innovación). The ENAI contains data at the establishment level for the period 2009-2011 and covers firms operating in all sectors of the Ecuadorian economy. The survey has data on 2,815 firms in the manufacturing, services, supplies activities and mining and quarrying activities (INEC, 2013). In the ENAI, firms are selected through a random process, but each one may have different probabilities of selection. For this reason, the data base includes an expansion factor defined as the inverse probability of choosing a company in a given stratum of economic activity. Therefore, we use sample weights in all the estimations in order to obtain unbiased point estimates and accurate standard errors (Kish, 1992; Lohr, 1999). The ENAI questionnaire is similar to the European Community Innovation Surveys and contains information on firms' innovation activities and on general characteristics of the firms. The survey classifies companies in activity sectors in accordance with the International Standard Industrial Classification ISIC 4.0. Our analysis covers all enterprises in the survey.

The dependent variables reflect 2 different types of innovation inputs. First, we examine *R&D intensity* defined as the logarithm of firms' internal and external R&D expenditures[350] divided by the number of employees[351]. Second, we use *innovation intensity* measured as the logarithm of the non-R&D innovation expenditures divided by the total number of employees. These expenditures include investments in the acquisition of machinery and equipment, hardware, software, disembodied technology, consulting and technical assistance, engineering and industrial design, training programs and market studies. We are also interested in this variable as in Ecuador innovation is more likely to be related to these types of activities rather than to formal R&D. Furthermore, the impact of the programs might be dependent on the different innovation inputs. Finally, as program participation refers to the period 2009-2011, all dependent variables are measured in 2011.

We use dummy variables to represent participation in support programs, taking on 1 if the firm participated in a specific program during the period 2009-2011. As we have indicated, we distinguish six types of programs; thus, we include one dummy variable for each program. We also take into account the effects of other determinants of R&D and innovation intensity as control variables, which will constitute our pretreatment variables. We include several general characteristics of the firm as *Size* measured with the logarithm of the total number of employees, the variable *Exporter* measured as firms' export percentage, the dummy variable *Group* taking on 1 if the firm is part of a business group, the dummy variable *Foreign Subsidiary* which takes value 1 for foreign firms, the dummy variable *Start-up* taking on 1 if the firm was created during the period 2009-2011, the dummy variable *Public firm* which takes value 1 if the firm is publicly owned. Finally, to control for technological opportunities and appropriability conditions, we include six sector dummies (Beneito, 2003; Ortega-Argilés et al., 2005): *High-tech industries*, *Low-tech industries*, *Supplies activities*, *Mining & quarrying*, *Knowledge intensive business services* (*KIBS*) and *Knowledge non-intensive business services* (*KNIBS*)[352]. Note that all control variables refer to the period 2009-2011, except for Export and Size that are measure in 2010[353].

Appendix I presents the description of all the dependent and independent variables and some descriptive statistics; while Appendix II displays the correlation matrix of the explicative variables which allows us to discard possible multicollinearity problems as we do not find large and significant correlations between them.

[350] ENAI defines R&D as creative work undertaken on a systematic basis in order to generate new knowledge (scientific or technical), to apply or leverage existing knowledge or to use knowledge developed by others. It includes basic research and experimental development.

[351] Applied economists often control for firm size in their studies of innovative effort by using R&D intensity as a dependent variable measuring innovative effort (Cohen, 1995).

[352] High-tech industries will be the reference category. Appendix I shows the activities included in each category.

[353] When we measure control variables in 2009 or 2011 coefficients estimates are very similar.

Regarding the methodology, we have to take into account several aspects. First, the dependent variables take value zero when firms do not make any R&D or innovation effort and a positive value otherwise. That means that these variables are lower censored and are only observable for a certain group of firms: those involved in R&D or innovation activities. To account for this, we employ Tobit models (Tobin, 1958). Second, as mentioned in the introduction, due to firms' self-selection and selection by the government, firms that participate in support programs are unlikely to have the same characteristics as the rest of the firms. If these sources of selection are not taken into account, participation in support programs will be positively correlated with the error term and therefore will suffer from endogeneity bias.

As we mentioned, this paper uses an alternative approach to estimate the impact of support programs based on a methodology proposed by Leuven and Oosterbeek (2008). The idea is to narrow down the comparison group of participants in order to find a subsample of firms more similar in pretreatment variables. If participants and controls are alike selection bias would be reduced or totally eliminated.

Our approach uses as a benchmark an estimation that does not control for selectivity in order to compare its results with estimates based on two narrowed down samples. Without any correction for selection bias, the comparison group consists of all firms that did not participate in a support program (*nonparticipants* hereafter). Note that if programs were randomly assigned to firms, the difference between participants and nonparticipants would be the causal effect of programs on R&D and innovation intensity. However, as programs are not assigned on a random basis, the factors underlying these selection mechanisms are likely to be associated with future R&D and innovation effort, which may lead to differences between participants and nonparticipants in terms of the characteristics that we do not observe. Therefore, comparing R&D and innovation inputs of both groups will give biased estimates of the causal effect of programs on R&D and innovation inputs.

By taking advantage of the rich information of the ENAI, the narrowing down methodology proceeds in two steps to reduce the comparison group. Besides data on participants, the ENAI has information on whether the firms knew the existence of support programs and on whether firms, that knew of a program, applied to it. With this information we can create two comparison groups based on credible exclusion restrictions. The first step reduces the comparison group to the group of nonparticipants that at least knew of one of the programs offered by the government (*connoisseurs* hereafter). Note that connoisseurs are a subsample of nonparticipants which is arguably a more suitable comparison group as it singles out all firms that were aware of the existence of support programs. Hence, it eliminates some of the self-selection mechanism as knowing the existence of support programs might be related to the already mentioned unobservable characteristics.

The second step is to further reduce the comparison group to firms that at least applied to one support program but were not accepted for any (*applicants* hereafter). Thus, this group totally eliminates self-selection bias because it only takes into account the firms that are willing to participate in programs. However, our estimations might still suffer from the government selection bias[354], as the government selects firms from among those that applied. Yet if applicants are more similar to participants than the other comparison groups, they should be a better control group. Furthermore, if applicants are similar in pretreatment variables to the participants, we can argue that we have eliminated part (if not all) of the government-selection bias. Note that this approach gives an estimate of the effect of treatment on the treated (Leuven and Oostelbeck, 2008).

By narrowing down the comparison groups, we are able to examine whether the firm's R&D and innovation inputs are related to program participation or to the aforementioned unobservable

[354] Note that in order to totally eliminate government selection bias we would require a comparison group of firms that were accepted for a program but did not use it due to a random event. Since ENAI does not have this information and it is unlikely that such firms actually exist, we are limited to the applicants as the most suitable comparison group.

characteristics. The second of these will apply if the point estimate of program participation drops from a large and significant value for the whole sample to zero in the participants group. This result would suggest that the relationships between firms' R&D and innovation inputs and program participation are actually the consequence of some characteristics not included in the estimation that strongly influence R&D and innovation effort and also lead firms to participate in the programs.

Table I presents the sample means of pretreatment variables for the firms that participate in at least one program (*participants* hereafter) and the three comparison groups. These variables are often included in R&D intensity equations as controls. Results from Table I show that connoisseurs and applicants are more comparable to participants than nonparticipants.

Table I. Sample means per participant and comparison groups

	Participants	Nonparticipants	Connoisseurs	Applicants
Size	4.288	3.444	3.548	3.786
Export	0.078	0.029	0.033	0.049
Group	0.239	0.137	0.157	0.201
Foreign subsidiary	0.076	0.030	0.033	0.030
Start-up	0.030	0.041	0.038	0.022
Public firm	0.033	0.021	0.020	0.015
Sector				
High-tech industry	0.116	0.036	0.046	0.067
Low-tech industry	0.364	0.373	0.394	0.448
KNIBS	0.200	0.279	0.250	0.209
KIBS	0.265	0.263	0.266	0.194
Mining and quarrying	0.030	0.025	0.022	0.045
Supply activities	0.025	0.024	0.023	0.037
N	569	2246	1284	134

Table II reports formal test statistics for significant differences between participants and comparison groups.

Table II. Test of equality between participants and comparison groups, (p-value)

	Participants vs. Nonparticipants	Participants vs. Connoisseurs	Participants vs. Applicants
Size	0.000	0.000	0.001
Export	0.000	0.000	0.161
Group	0.000	0.000	0.355
Foreign Subsidiary	0.000	0.000	0.057
Start-up	0.221	0.375	0.639
Public	0.079	0.090	0.259
Sector	0.000	0.007	0.635

Note: The p-values are based on t-test for the continuous variables (size and export) and on rank-sum test for the categorical variables (group, foreign subsidiary, start-up and sectors).

The first column shows that participants and nonparticipants are significantly different with respect to the variables size, export, group, foreign subsidiary and sector at a 1% level and to public firms at the 10%. If we compare these results with Table I, we may observe that participants have

on average more employees than nonparticipants, greater export percentage, are less likely to be start-ups and are more likely to be part of a business group, to be foreign subsidiaries, to be public firms and to belong to high-tech industries, knowledge intensive business sector, mining and quarrying and supply activities. Therefore, these characteristics clearly affect firms' willingness to participate in support programs, confirming the existence of self-selection bias. Hence nonparticipants are not an appropriate comparison group.

Replacing nonparticipants by connoisseurs does not remove the significant differences of these variables, although public firm and sector slightly reduce their level of significance. However, when we compare participants with applicants, there appear to be no significant differences with respect to public firm, export, group and sector. Only for size do we observe a significant difference at 1% level and for foreign subsidiary at the 10%. This would demonstrate the presence of government selection bias and indicates that the government prioritizes larger firms and to some extent foreign owned firms. Thus our estimates of the causal effect of support programs on R&D and innovation inputs will still be biased. Nevertheless, it is important to note that participants and comparison groups do actually become increasingly similar with the narrowing down approach and that applicants seems the most appropriate comparison group.

4. Results and discussion

Table III shows the estimated coefficients with robust standard errors of the different programs in the R&D intensity equation for the different combinations of participants and comparison groups, with and without control variables. The full set of variables listed in Table I are used as controls. We apply Tobit models with robust standard errors.

Table III. Effect of programs on R&D intensity for different combinations of participant and comparison groups and control variables

	Nonparticipants		Connoisseurs		Applicants	
Personal training	5.137***	4.420***	4.092***	3.721***	2.700***	2.400**
	(1.148)	(1.073)	(1.061)	(1.031)	(0.987)	(0.937)
R&D support	1.231	0.751	1.063	0.486	0.790	0.482
	(2.135)	(1.984)	(1.909)	(1.830)	(1.691)	(1.744)
Technology adoption	4.857**	4.755**	4.248**	4.123**	3.414**	3.488**
	(2.198)	(2.227)	(1.986)	(1.883)	(1.731)	(1.767)
Production certificate	3.182***	1.448	2.013**	0.572	0.494	-0.0651
	(0.915)	(0.915)	(0.857)	(0.866)	(0.886)	(0.859)
Entrepreneurship support	4.171***	2.802**	3.249**	2.338*	2.031*	1.093
	(1.518)	(1.345)	(1.369)	(1.341)	(1.179)	(1.043)
Export promotion	5.079**	4.551*	4.307**	3.922	3.269*	2.574
	(2.442)	(2.689)	(2.182)	(2.42)	(1.824)	(1.872)
Size		1.367***		1.027***		0.605**
		(0.291)		(0.27)		(0.298)
Export		1.092		0.645		1.047
		(1.849)		(1.791)		(1.841)
Group		0.792		0.479		1.768
		(0.954)		(0.901)		(1.159)
Foreign subsidiary		-4.070***		-4.296***		-3.624**
		(1.316)		(1.318)		(1.417)
Start-up		6.412**		1.568		4.842**
		(2.649)		(1.972)		(2.232)
Public firm		2.352		4.077**		1.443
		(1.726)		(1.808)		(2.014)
Observations	2,815	2,815	1,853	1,853	703	703

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. All estimations use sample weights and a constant, and estimations with control variables also include sector dummies.

Between participants and nonparticipants, without controls, we find that all support programs increase firms' R&D intensity except for *R&D support programs*. Adding controls reduces the impact of all programs and *production certificate programs* are no longer significant, while *export promotion programs* are now just significant at the 10% level. Concerning control variables, results indicate that large firms have a greater R&D intensity, reflecting R&D economies of scale. Foreign subsidiaries are less R&D intensive than domestic firms, confirming that foreign firms operating in emerging innovation systems are not too much involved in R&D activities, given the weakness of the technological activities in the host country (Patel and Vega, 1999; Le Bas and Sierra, 2002). Start-ups are also more R&D intensive, supporting the empirical evidence indicating that new firms are usually among the most innovative as their survival strongly depends on their innovation behavior (Audretsch, 1995; Huergo and Jaumandreu, 2004).

If we look at the connoisseurs control group, the point estimates of programs become somewhat smaller regardless the use of control variables. In the estimation without control variables, all programs, except *R&D support*, are significant. When we include controls, only *personal training* and *technology adoption and management* programs are significant at the 1% and 5% level respectively, while *entrepreneurship support* becomes significant at the 10% level.

The results change even more when we use applicants as the comparison group. Again the estimated coefficients of the programs are reduced, indicating that the large effect of programs,

which we found in the first comparison groups, were upward biased as a consequence of firms' unobservable characteristics. With and without control variables, *personal training* and *technology adoption and management* are the only programs that actually contribute to firms' R&D intensity, at a significant level of 5%. This indicates that the positive effect of the other programs observed with respect to nonparticipants and connoisseurs is due to firms' unobservable characteristics but not to the effectiveness of the programs.

Table IV displays the estimated coefficients of the six support programs in the innovation intensity equation for the different combinations of participants and comparison groups, with and without control variables. We again apply Tobit models with robust standard errors.

Table IV. Effect of programs on Innovation intensity for different combinations of participant and comparison groups and control variables

	Nonparticipants		Connoisseurs		Applicants	
Personal training	3.339***	2.973***	2.528***	2.250***	2.205***	1.973***
	(0.877)	(0.830)	(0.825)	(0.779)	(0.833)	(0.762)
R&D support	-0.763	-0.909	-0.752	-0.916	-0.675	-0.725
	(1.714)	(1.860)	(1.669)	(1.892)	(1.557)	(1.626)
Technology adoption	1.248	1.299	0.858	1.049	0.703	0.923
	(1.593)	(1.447)	(1.458)	(1.356)	(1.350)	(1.245)
Production certificate	3.194***	2.123***	2.151***	1.259*	1.811**	0.967
	(0.668)	(0.679)	(0.646)	(0.643)	(0.768)	(0.744)
Entrepreneurship support	1.533	0.813	0.885	0.353	0.68	0.175
	(1.192)	(1.134)	(1.099)	(1.033)	(1.038)	(0.939)
Export promotion	3.080**	2.869**	2.482*	2.271*	2.204*	2.182**
	(1.374)	(1.273)	(1.292)	(1.187)	(1.211)	(1.071)
Size		0.766***		0.959***		1.162***
		(0.265)		(0.258)		(0.243)
Export		-2.943**		-3.675***		-2.608*
		(1.287)		(1.311)		(1.567)
Group		0.0507		0.300		-1.454
		(0.782)		(0.805)		(0.981)
Foreign subsidiary		0.157		-1882		0.377
		(1.984)		(1.904)		(2.533)
Start-up		1.211		1.432		1.625
		(1.407)		(1.527)		(2.333)
Public firm		-0.811		0.206		-0.0411
		(1.198)		(1.320)		(1.617)
Observations	2,815	2,815	1,853	1,853	703	703

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. All estimations use sample weights and a constant, and estimations with control variables also include sector dummies.

Results from Table IV show that, between participants and nonparticipants and without control variables, only *personal training*, *production certificate* and *export promotion* programs have a positive impact on firms' innovation intensity. Again, as expected, adding controls reduces the impact of all support programs. Here we find that larger firms are more innovation intensive and there is a negative association with the export variable. The rest of the firms' characteristics do not show significant differences.

As happened in the R&D intensity equation, if we look at connoisseurs, the point estimates of programs become smaller, regardless of the use of control variables. Again, only the three programs

mentioned are significant, with *export promotion* now significant at the 10% level both with and without control variables.

When we compare participants with applicants the estimated coefficients for programs decrease even more. Without control variables, *production certificate, personal training* and *export promotion* have a positive significant effect on innovation intensity. When we include controls, only *personal training* and *export promotion* have a positive significant effect. These results also indicate that, without controlling for selection, estimates on program participation are upward biased due to firms' unobservable characteristics that are correlated with the error term.

Results from Tables III and IV reveal several interesting insights. First, *R&D support* programs do not increase either firms' R&D intensity or innovation intensity even when we do not control for selection at all. This suggests that R&D subsidies are likely to crowd out private R&D and innovation investment if innovation systems are not mature. Nevertheless, we have to consider that R&D and innovation activities might take several years to implement, especially in emerging innovation systems where R&D capabilities, networks and institutions are not sufficiently developed, and thus the effect of R&D subsidies may last longer than the subsidy itself (Levy and Terleckyj, 1983; Klette and Møen, 1998; Lach, 2002; Cerulli, 2010; Zúñiga-Vicente et al., 2014). R&D subsidies in developing countries could be justified, even if they crowd out private investment, if firms can benefit from the spillovers of the new knowledge resulting from the public funding or if the firms hire R&D personnel thanks to the subsidy (David et al., 2000; Koga, 2005; Zúñiga-Vicente et al., 2014). Therefore, the full effect of the R&D subsidy may be distributed over a longer period of time which we are unable to assess as we do not deal with panel data. Additionally, *R&D support* programs might also change the behavior of subsidized firms regarding their competences, cooperation networks, quality of research outputs and so on. These qualitative changes should also be considered when evaluating the effectiveness of R&D subsidies in developing countries.

Second, *personal training* programs increase both R&D and innovation intensity even when we use the most restrictive comparison group with control variables. This seems to confirm that if the innovation system has not reached a certain level of development, regarding efficient R&D organizations, trust between agents and proper regulation; innovative firms will only perform in-house R&D and innovation activities (Arocena and Sutz, 2002). As a consequence, firms will need qualified personnel in order to innovate (Chaminade et al., 2010). These results support the application of policies that upgrade the skills of workers because they translate into an increase in R&D and innovation expenditures.

Third, *technology adoption and management* programs show the greatest positive effect on firms' R&D intensity. This seems to confirm that in emerging innovation systems, innovation is mainly related to the absorption of technology and competence building rather than to formal R&D activities (Viotti, 2002; Chaminade et al., 2010). As a result, programs designed to enhance technological and managerial capabilities allow firms to apply and leverage existing knowledge or knowledge developed by others and thus perform more R&D activities. Moreover, although *export promotion* programs are not directly related to innovation activities, promoting exports in developing countries seems to induce firms to invest more in the acquisition of embodied and disembodied technology, consulting and technical assistance, engineering, industrial design, training programs and marketing which in turn will enhance their technological and innovation capabilities. This is likely to happen as exporters face greater competitive pressures (Baldwin and Gu, 2004; Bratti and Felice, 2012).

Finally, the observed positive effects of *entrepreneurship support* and *export promotion* programs on R&D intensity and of *production certificate* programs on innovation intensity, in the

broader comparison groups, are mainly a consequence of participants' characteristics rather than to the effectiveness of the programs in promoting R&D or innovation activities. When we control for selection bias, results show that these programs do not actually increase private investments.

5. Conclusion

Drawing on data from the Ecuadorian Survey of Innovation 2013, this paper compares the effect of six public support programs on firms' R&D and innovation intensity. At a theoretical level, it is argued that in emerging innovation systems, capabilities, networks and institutions are not sufficiently developed. For that reason, those policies designed to enhance firms' technological and managerial capabilities should have a greater impact than R&D subsidies.

Given the extensive information of the Ecuadorian Survey of Innovation, we are able to deal with selection bias by using an alternative approach to estimate the causal effect of the different programs. This methodology was first proposed by Leuven and Oosterbeek (2008) in their study of private-sector training effects on wages. The central idea is to narrow down the comparison group of firms that participate in programs by only taking into account the firms that applied to at least one program but were not accepted for any. By doing so, we are able to control for selection bias. The main advantage of this approach compared to propensity to score matching is that it creates a comparison group based on a credible exclusion restriction (Leuven and Oosterbeek, 2008).

Results indicate that to some extent firms that participate in programs are more R&D and innovation intensive, not due to the effectiveness of the programs but to unobservable characteristics of the firms that lead them to participate in programs and are also positively associated with their R&D and innovation effort. After applying the narrowing down methodology, results indicate that only *personal training* and *technology adoption and management* programs have an actual positive effect on firms' R&D intensity; while only *personal training* and *export promotion* programs have an effect on their innovation intensity. However *R&D support* programs do not increase firms' R&D and innovation effort even when we do not control for selection at all. This suggests that R&D subsidies tend to crowd out private R&D and innovation investments if innovation systems are not mature.

The findings of this paper have important policy implications for developing countries. They suggest that innovation support policies should be designed to enhance firms' technological and managerial capabilities instead of R&D capabilities. Innovation programs tend to focus almost exclusively on science modes of learning and consequently on formal R&D. However, in emerging innovation systems, innovation policy should be more concerned with supporting on-the-job learning and easing interactions with the users (Chaminade et al., 2009). Therefore, those policies supporting competence building in engineering, design, training and managerial capabilities should be more effective (Chaminade and Vang, 2008; Chaminade et al., 2010). Once firms have developed technological and managerial capabilities and the national innovation system contains proper R&D organizations and institutions that allow firms to establish satisfactory R&D networks, the policies designed to exploit firms' R&D capabilities may become effective (Galli and Teubal, 1997). As Chaminade et al. (2009) indicate, in mature innovation systems, firms can develop R&D capabilities because they have first developed their absorptive capacity and are engaged in interactive learning with other organizations in the system (Chaminade et al., 2009). Nevertheless, R&D subsidies in developing countries could still be appropriate if firms can benefit from the spillovers of the new knowledge resulting from the subsidies, if the firms hire R&D personnel or if firms change their innovative and organizational behavior. Additionally, results indicate that export promotion programs induce firms to invest in activities that, although not related to R&D, may serve to assist firms in improving their technological and innovation capabilities.

Finally, this paper opens up future lines of research regarding the analysis of innovation policies as it indicates that other instruments besides R&D subsidies should be considered when evaluating the impact of the public policies in developing countries. Results show that assessing the effectiveness of innovation support programs requires both a clear understanding of the design of the programs and of the innovation system in which programs are implemented. Moreover, this paper proposes the use of an alternative methodological approach that had not previously been employed in innovation or management studies, but that can certainly be very useful for empirical studies that analyze survey data.

References

1. Afuah, A.N., 2002. Mapping technological capabilities into product markets and competitive advantage. Strategic Management Journal 23 (2), 171-179.
2. Almus, M., Czarnitzki, D., 2003. The effects of public R&D subsidies on firms' innovation activities: the case of Eastern Germany. Journal of Business & Economic Statistics 21(2), 226-236.
3. Alvarez, R., 2004. Sources of export success in small-and medium-sized enterprises: the impact of public programs. International Business Review 13(3), 383-400.
4. Antonelli, C., 1989. A failure-inducement model of research and development expenditure. Journal of Economic Behavior & Organization 12(2), 159-180.
5. Armour, H.O., Teece, D.J., 1981. Vertical integration and technological innovation. Review of Economics and Statics 62(3), 470-74.
6. Arocena, R., Sutz, J., 2000. Looking at national systems of innovation from the South. Industry and Innovation 7(1), 55-75.
7. Arocena, R., Sutz, J., 2002. Innovation systems and developing countries. DRUID (Danish Research Unit for Industrial Dynamics) Working Paper 2 (05).
8. Arrow, K.J. (1962). Economic welfare and the allocation of resources to invention, in: Nelson, R.R. (Eds),The Rate and Direction of Inventive Activity: Economic and Social Factors. Princeton University Press, Princeton, pp. 609–626.
9. Atkeson, A., Burstein, A., 2010. Innovation, Firm Dynamics, and International Trade. Journal of Political Economy 118(3), 433–484.
10. Audretsch, D., 1995. Innovation and Industry Evolution. MIT Press, Cambridge, Mass.
11. Baldwin, J.R., Gu, W., 2004. Trade liberalization: Export-market participation, productivity growth, and innovation. Oxford Review of Economic Policy 20(3), 372-392.
12. Bell, M. (1984). Learning and Accumulation of Technological Capacity of Developing Countries, in: Fransman, M., King, K. (Eds), Technological Capability in the Third World. Macmillan, London.
13. Bell, M., 2007. Developments in innovation systems thinking: past, current and future applications of the innovation systems perspective. Paper prepared for the UNIDO expert group on Innovation Systems in Practice, Vienna, October 2007.
14. Bell, M., Pavitt, K. (1995). The development of technological capabilities, in: Haque, I.U. (Eds), Trade, Technology and International Competitiveness. Economic Development Institute of the World Bank, Washington, pp. 69-100.
15. Beneito, P., 2003. Choosing among alternative technological strategies: An empirical analysis of formal sources of innovation. Research Policy 32(4), 693-713.
16. Binelli, C., Maffioli, A., 2006. Evaluating the Effectiveness of Public Support to Private R&D: Evidence from Argentina. OVE Working Papers 1106. InterAmerican Development Bank, Office of Evaluation and Oversight.

17. Blanes, J.V., Busom, I., 2004. Who participates in R&D subsidy programs? The case of Spanish manufacturing firms. Research Policy 33(10), 1459–1476.
18. Blundell, R., Costa Dias, M., 2000. Evaluation methods for non-experimental data. Fiscal studies 21(4), 427-468.
19. Bratti, M., Felice, G., 2012. Are exporters more likely to introduce product innovations?. The World Economy 35(11), 1559-1598.
20. Busom, I., 2000. An empirical evaluation of the effects of R&D subsidies. Economics of Innovation and New Technology 9(2), 111-148.
21. Cantner, U., Kösters, S., 2012. Picking winners? Empirical evidence on the targeting of R&D subsidies to start-ups. Small Business Economics 39(4), 921-936.
22. Cantner, U., Kösters, S., 2015. Public R&D support for newly founded firms-effects on patent activity and employment growth. Journal of Innovation Economics & Management 1(16), 7-37.
23. Carlsoon, B., Jacobsson, S. (1997). Diversity creation and technological systems: a technology policy perspective, in: Edquist, C. (Eds), Systems of Innovation: Technologies, Institutions and Organizations. Printer Publishers, London.
24. Cerulli, G., 2010. Modelling and measuring the effect of public subsidies on business R&D: a critical review of the econometric literature. Economic Record 86(274), 421-449.
25. Chaminade, C., Edquist, C. (2006). From theory to practice. The use of the systems of innovation approach in innovation policy, in: Hage, J., Meeus, M. (Eds), Innovation, Learning and Institutions. Oxford University Press, London.
26. Chaminade, C., Lundvall, B.Å., Vang, J., Joseph, K.J. (2009). Designing innovation policies for development: towards a systemic experimentation-based approach, in: Lundvall, B.Å., Joseph, K.J., Chaminade, C., Vang, J. (Eds), Handbook of Innovation Systems and Developing Countries. Edward Elgar Publising Limited, Cheltenham.
27. Chaminade, C., Lundvall, B.Å., Vang, J., Joseph, K.J., 2010. Innovation policies for development: towards a systemic experimentation based approach. Papers in Innovation Studies 2010/1, Lund University, CIRCLE – Center for Innovation, Research and Competences in the Learning Economy.
28. Chaminade, C., Vang, J., 2008. Globalisation of Knowledge Production and Regional Innovation Policy: Supporting Specialized Hubs in Developing Countries. Research Policy 37(10), 1684-97.
29. Cimoli, M., Dosi, G., Nelson, R.R., Stiglitz, E. (2009). Institutions and policies in developing economies, in: Lundvall, B.Å., Joseph, K.J., Chaminade, C., Vang, J. (Eds), Handbook of Innovation Systems and Developing Countries. Edward Elgar Publising Limited, Cheltenham.
30. Clausen, T.H., 2009. Do subsidies have positive impacts on R&D and innovation activities at the firm level?. Structural Change and Economic Dynamics 20(4), 239-253.
31. Cohen, W. (1995). Empirical studies of innovative activity, in: Stoneman, P. (Eds), Handbook of the economics of innovation and technological change. Blackwell, Oxford, pp. 182-264.
32. Cohen, W.M., Klepper, S., 1992. The anatomy of industry R&D intensity distributions. The American Economic Review 82(4), 773-799.
33. Cohen, W.M., Klepper, S., 1996. Firm size and the nature of innovation within industries: the case of process and product R&D. Review of Economics and Statistics 78(2), 232-243.
34. Curran, J., and Storey, D.J., 2002. Small business policy in the United Kingdom: the inheritance of the Small Business Service and implications for its future effectiveness. Environment and Planning C: Government and Policy 20(2), 163-177.

35. Czarnitzki, D., Fier, A., 2002. Do Innovation Subsidies Crowd Out Private Investment? Evidence from the German Service Sector. Konjunkturpolitik - Applied Economics Quarterly 48(1), 1-25.
36. Czarnitzki, D., Fier, A., 2003. Publicly Funded R&D Collaborations and Patent Outcome in Germany. ZEW Discussion Papers, (No. 03-24), Mannheim, Germany.
37. David, P., Hall, B., Toole, A., 2000. Is public R&D a complement or substitute for private R&D? A review of the econometric evidence. Research Policy 29(4-5), 497-529.
38. Dickson, K., Fang, F., 2008. Management of R&D within a Dynamic Standardization Environment. In The 5th International Conference of Innovation & Management, The Netherlands, 623-629.
39. Duguet, E., 2004. Are R&D subsidies a substitute or a complement to privately funded R&D? Evidence from France using propensity score methods for non-experimental data. Revue d'Economie Politique 114(2), 263-292.
40. European Commission, 2009. Analysing and Evaluating the Impact on Innovation of Publicly Funded Research Programmes: Lot 2 – Benchmarking Strategies and Methodologies of National, European and International R&D Programmes to Assess and Increase their Impact on Innovation, Final Report, European Commission, DG Enterprise.
41. Eurostat, 2009. Research and Development Expenditure, by Sectors of Performance. Available at http://epp.eurostat.ec.europa.eu (last accessed 5 March 2009). European Commission.
42. Evangelista, R., 1999. Knowledge and investment. Edward Elgar, Cheltenham.
43. Evangelista, R., Sandven, T., Sirilli, G., Smith, K., 1998. Measuring innovation in European Industry. International Journal of the Economics of Business 5(3), 311-333.
44. Figuereido, P., 2001. Technological learning and competitive performance. Edward Elgar, Cheltenham.
45. Fleming, L., 2001. Recombinant uncertainty in technological search. Management Science 47(1), 117-132.
46. Galli, R., Teubal, M. (1997). Paradicmatic shifts in national innovation systems, in: Edquist, C. (Eds), Systems of Innnovation. Technologies, Institutions and Organizations. Routledge, London.
47. Gomel, M.M., Sbragia, R., 2006. A capacitação tecnológica e o desempenho exportador da indústria brasileira de software: o papel dos investimentos em P&D. Journal of Technology Management & Innovation 1(3), 60-73.
48. González, X., Jaumandreu, J., Pazó, C., 2005. Barriers to innovation and subsidy effectiveness. The Rand Journal of Economics 36(4), 930-949.
49. González, X., Pazó, C., 2008. Do public subsidies stimulate private R&D spending?. Research Policy 37(3), 371-389.
50. Görg, H., Strobl, E., 2007. The effect of R&D subsidies on private R&D. Economica 74(294), 215-234.
51. Grabowski, H.G., 1968. The determinants of industrial research and development: A study of the chemical, drug, and petroleum industries. The Journal of Political Economy 76(4), 292-306.
52. Greene, S., 2009. Customizing indigeneity: paths to a visionary politics in Peru. Stanford University Press.
53. Hægeland, T., Møen, J., 2007. The relationship between the Norwegian R&D tax credit scheme and other innovation policy instruments. Reports 2007/45, Statistics Norway.
54. Hahn, C.H., Park, C.G., 2012. Direction of Causality in Innovation-Exporting Linkage: Evidence on Korean Manufacturing. ERIA Discussion Paper 7.
55. Hao, K.Y., Jaffe, A.B., 1990. Effect of liquidity on firms' R&D spending. Economics of Innovation and New technology 2(4), 275-282.

56. Hauknes, J., and Norgren, L., 1999. Economic rationales of government intervention in innovation and the supply of innovation related services. STEP report 8.
57. Henderson, R., Cockburn, I., 1994. Measuring competence: Exploring firm effects in pharmaceutical research. Strategic Management Journal 15, special issue, 63-84.
58. Henderson, R.M., 1988. The failure of established firms in the face of technical change: A study of photolithographic alignment equipment. Ph.D. thesis, Harvard University.
59. Himmelberg, C.P., Petersen, B.C., 1994. R & D and internal finance: A panel study of small firms in high-tech industries. The Review of Economics and Statistics 76(1), 38-51.
60. Huergo, E., Jaumandreu, J., 2004. Firms' age, process innovation and productivity growth. International Journal of Industrial Organization 22(4), 541– 559.
61. Huergo, E., Moreno, L., 2014. National or international public funding? Subsidies or loans? Evaluating the innovation impact of R&D support programmes. MPRA Paper 54218, online: http://mpra.ub.uni-muenchen.de/54218/
62. Hussinger, K., 2008. R&D and subsidies at the firm level: An application of parametric and semiparametric two-step selection models. Journal of Applied Econometrics 23(6), 729-747.
63. Impullitti, G., Licandro, O., 2010. Trade, Firm Selection, and Innovation: The Competition Channel. UFAE and IAE Working Papers 841.10, Unitat de Fonaments de l'Anàlisi Econòmica (UAB) and Institut d'Anàlisi Econòmica (CSIC).
64. INEC and SENESCYT, 2011. Principales indicadores de ciencia, tecnología e innovación, periodo 2009-2011. Instituto Nacional de Estadística y Censos, Secretaría de Educación Superior, Ciencia, Tecnología e Innovación, Ecuador. http://www.ecuadorencifras.gob.ec/documentos/web-inec/Estadisticas_Economicas/Ciencia_Tecnologia/Presentacion_de_principales_resultados_ACTI.pdf
65. INEC, 2013. Encuesta Nacional de Innovación 2013: metodología del diseño muestral. Instituto Nacional de Estadística y Censos, Ecuador.
66. Intarakumnerd, P., Chaminade, C., 2011. Innovation policies in Thailand: towards a system of innovation approach?. Asia Pacific Business Review 17(2), 241-256.
67. Ito, K., 2012. Sources of Learning-by-Exporting Effects: Does Exporting Promote Innovation?. ERIA Discussion Paper 6.
68. Jaffe, A., 2002. Building program evaluation into the design of public research-support programs, Oxford Review of Economic Policy 18(1), 23-33.
69. Jensen, M. B., Johnson, B., Lorenz, E., Lundvall, B., 2007. Forms of knowledge and modes of innovation. Research Policy 36(5), 680-93.
70. Johnson, B., Lundvall, B.Å. (2000). Promoting innovation systems as a response to the globalising learning economy, in: Cassiolato, J., Lastres, H.M.M. (Eds), Arranjos e Sistemas Produtivos Locais e as Novas Políticas de Desenvolvimento Industrial e Tecnológico. BNDES/FINEP-FUJB, Rio de Janeiro: IE/UFRJ.
71. Kish, L., 1992. Weighting for Unequal Pi. Journal of Official Statistics 8(2), 183-200.
72. Klette, T. J., Møen, J., 1998. From growth theory to technology policy: coordination problems in theory and practice. Norwegian School of Economics and Business Administration, Department of Economics.
73. Koga, T., 2005. R&D subsidy and self-financed R&D: the case of Japanese high-technology start-ups. Small Business Economics 24(1), 53–62.
74. Kogut, B., Zander, U., 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. Organization Science 3(3), 383-397.
75. Kraft, K., 1989. Market structure, firm characteristics and innovative activity. The Journal of Industrial Economics 37(3), 329-336.
76. Kuncoro, K., 2012. Globalization and Innovation in Indonesia: Evidence from Micro-Data on Medium and Large Manufacturing Establishments. ERIA Discussion Paper 9.

77. Lach, S., 2002. Do R&D subsidies stimulate or displace private R&D? Evidence from Israel. Journal of Industrial Economics 50(4), 369-390.
78. Lall, S., 1992. Technological capabilities and industrialization. World Development 20(2), 165-186.
79. Le Bas, C., Sierra, C., 2002. Location versus home country advantages in R&D activities: some further results on multinationals' location strategies. Research Policy 31(4), 589-609.
80. Lee, J., Bae, Z.T., Choi, D.K., 1988. Technology development processes: a model for a developing country with a global perspective. R&D Management 18(3), 235-250.
81. Leuven, E., Oosterbeek, H., 2008. An alternative approach to estimate the wage returns to private-sector training. Journal of applied econometrics 23(4), 423-434.
82. Levy, D. M., Terleckyj, N. E., 1983. Effects of government R&D on private R&D investment and productivity: a macroeconomic analysis. The Bell Journal of Economics 14(2), 551-561.
83. Lichtenberg, F.R., 1988. The Private R&D Investment Response to Federal Design and Technical Competitions. American Economic Review 78(3), 550-59.
84. Lindström, O., Heshmati, A., 2005. The impact of public funds on private R&D investment: New evidence from a firm level innovation study. MTT Discussion Papers 3.
85. Link, A.N., 1981. Research and development activity in US manufacturing. Praeger, New York.
86. Lohr, S.L., 1999. Sampling: Design and Analysis. Duxbury Press, Pacific Grove, CA.
87. Lundvall, B.Å., 2007. Innovation system research and policy. Where it came from and where it might go. Oslo, Center for Advances Studies – Norwegian Academy of Science and Letters.
88. Mairesse, J., Mohnen, P., Zhao, Y., Zhen, F., 2012. Globalization, Innovation, and Productivity in Manufacturing Firms: A Study of Four Sectors of [the People's Republic of] China. ERIA Discussion Paper 10.
89. Mowery, D.C., Rosenberg, N., 1989. Technology and the pursuit of economic growth. Cambridge University Press, Cambridge.
90. Nelson, R.R., 1959. The Simple Economics of Basic Scientific Research. The Journal of Political Economy 67(3), 297-306.
91. OECD, 2005. Oslo manual: Guidelines for collecting and interpreting innovation data. Organisation for Economic Co-operation and Development: Statistical Office of the European Communities, Paris.
92. Ortega-Argilés, R., Moreno, R., Caralt, J. S., 2005. Ownership structure and innovation: is there a real link?. The Annals of Regional Science 39(4), 637-662.
93. Patel, P., Vega, M., 1999. Patterns of internationalisation of corporate technology: Location vs. home country advantages. Research Policy 28(2-3), 145-155.
94. Radicic, D., Pugh, G. (2013). The impact of innovation support programmes on SME innovation in traditional manufacturing industries: an evaluation for seven EU regions, in: DRUID society (Eds), Conference Proceedings DRUID Academy 2013.
95. Rosenbaum, P.R., Rubin, D.B., 1983. The central role of the propensity score in observational studies for causal effects. Biometrika 70(1), 41-55.
96. Rosenberg, N., Steinmueller, W.E., 1988. Why are Americans such poor imitators?. The American Economic Review 78(2), 229-234.
97. Rothwell, R., Freeman, C., Horlsey, A., Jervis, V.T.P., Robertson, A.B., Townsend, J., 1974. SAPPHO updated-project SAPPHO phase II. Research policy 3(3), 258-291.
98. Rush, H., Bessant, J., Hobday, M., 2007. Assessing the technological capabilities of firms: developing a policy tool. R&D Management 37(3), 221-236.
99. Scherer, F.M., 1965. Firm size, market structure, opportunity, and the output of patented inventions. The American Economic Review 55(5), 1097-1125.

100. Scott, J.T., Pascoe, G., 1987. Purposive Diversification of R&D in Manufacturing, Journal of Industrial Economics 36(2), 193-205.
101. SENPLADES, 2012. Transformación de la matriz productiva a través del conocimiento y el talento humano. Secretaría Nacional de Planificación y Desarrollo.
102. SETEC, 2015. Bases de la convocatoria para la asignación de recursos para el financiamiento de acciones y/o programas de capacitación y formación profesional. Secretaría Técnica de Capacitación y Formación Profesional. Ecuador. http://www.secretariacapacitacion.gob.ec/denuncias/
103. Smith, K. (2005). Measuring innovation, in: Fagerberg, J., Mowery, D.C., Nelson, R.R. (Eds), The Oxford handbook of innovation. Oxford University Press, pp.148-177.
104. Smith, K., 2000. Innovation as a system phenomenon: rethinking the role of policy. Enterprise and Innovation Management Studies 1(1), 73-102.
105. STEP Group, 1997. Innovation expenditures in European industry: analysis from CIS. Report to the European Innovation Monitoring System.
106. Stiglitz, J., 1988. Economics of the Public Sector. W.W. Norton and Company, New York.
107. Suetens, S., 2002. R&D subsidies and production effects of R&D personnel: evidence from the Flemish region. CESIT Discussion Paper 2002/03, Antwerp.
108. Teece, D.J., (1987). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy, in: Teece, D.J. (Eds), The competitive challenge: Strategies for industrial innovation and renewal. Ballinger, Cambridge, Mass.
109. Teece, D.J., 1986. Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. Research Policy 15(6), 285-305.
110. Tobin, J., 1958. Estimation of relationships for limited dependent variables. Econometrica 26(1), 24-36.
111. Viotti, E.B., 2002. National learning systems: a new approach on technological change in late industrializing economies and evidences from the cases of Brazil and South Korea. Technological Forecasting and Social Change 69(7), 653-80.
112. Wallsten, S.J., 2000. The effects of government-industry R&D programs on private R&D: the case of the Small Business Innovation Research Program. RAND Journal of Economics 31(1), 82-100.
113. Westphal L., Kim, L., Dahlman, C. (1985). Reflections on the Republic of Korea‘s acquisition of technological capability, in: Rosenberg, N., Frischtak, C. (Eds), International Technology Transfer. Praeger, New York, pp. 167–221.
114. Woolthuis, R.K., Lankhuizen, M., Gilsing, V., 2005. A system failure framework for innovation policy design. Technovation 25(6), 609-19.
115. Zawislak, P.A., Cherubini Alves, A., Tello-Gamarra, J., Barbieux, D., Reichert, F.M., 2012. Innovation capability: from technology development to transaction capability. Journal of technology management & innovation 7(2), 14-27.
116. Zhou, K.Z., and Wu, F., 2010. Technological capability, strategic flexibility, and product innovation. Strategic Management Journal 31(5), 547-561.
117. Zúñiga-Vicente, J. Á., Alonso-Borrego, C., Forcadell, F. J., Galán, J. I., 2014. Assessing the effect of public subsidies on firm R&D investment: a survey. Journal of Economic Surveys 28(1), 36-67.

Appendix

Appendix I. Descriptive statistics

Variable	Description	Mean	S.D.
R&D intensity	Logarithm of 1 + internal and external R&D expenditures divided by the number of employees. *	1.02	2.27
Innovation intensity	Logarithm of 1 + other innovation expenditures divided by the number of employees. **	2.41	3.31
Personal training	Dummy variable taking on 1 if the firm acceded to a personal training program.	0.06	0.24
R&D support	Dummy variable taking on 1 if the firm acceded to a R&D support program.	0.01	0.09
Technology adoption and management	Dummy variable taking on 1 if the firm acceded to a technology adoption and management program.	0.01	0.10
Production certificate	Dummy variable taking on 1 if the firm acceded to a production certificate program.	0.13	0.34
Entrepreneurship support	Dummy variable taking on 1 if the firm acceded to an entrepreneurship support program.	0.04	0.20
Export promotion	Dummy variable taking on 1 if the firm acceded to an export promotion program.	0.02	0.13
Size	Logarithm of the number of employees in 2010.	3.61	1.30
Export	Percentage of annual exports over annual sales in 2010.	0.04	0.16
Group	Dummy variable taking on 1 if the firm is part of a business group.	0.16	0.36
Foreign subsidiary	Dummy variable taking on 1 when the firm is totally owned by a foreign firm.	0.04	0.19
Start-up	Dummy variable taking on1 if the firm was created during the period of 2009-2011.	0.04	0.19
Public firm	Dummy variable taking on 1 if the firm is a public firm.	0.02	0.15
High-tech industry	Dummy variable taking on1 if the firm belongs to high-tech industries (ISIC: C20, C21, C26, C27, C28, C29, C30).	0.05	0.22
Low-tech industry	Dummy variable taking on 1 if the firm belongs to low-tech industries (ISIC: C05 to C19, C22 to C25, C31to C33).	0.37	0.48
KNIBS	Dummy variable taking on 1 if the firms belong to knowledge non-intensive business services (ISIC: F41, F42, F43, H49, H50, H51, H52, H53, I55, I56, J58, L68, N77, N78, N79, N81, G45, G46, G47).	0.26	0.44
KIBS	Dummy variable taking on 1 if the firm belongs to knowledge intensive business services (ISIC: J59, J60, J61, J62, J63, K64, K65, K66, M69, M70, M71, M72, M73, M74, M75, N80, N82, Q86, Q87).	0.26	0.44
Mining and quarrying	Dummy variable taking on 1 for extractive activities (ISIC: B05 to B09).	0.03	0.16
Supply activities	Dummy variable taking on 1for firms belonging to supply activities (ISIC: D35, E36, E37, E38, E39). ***	0.02	0.15

* ENAI defines R&D as creative work undertaken on a systematic basis in order to generate new knowledge (scientific or technical), to apply or leverage existing knowledge or to use knowledge developed by others. It includes basic research and experimental development.

**Includes the acquisition of machinery and equipment, hardware, software, disembodied technology, consulting and technical assistance, engineering and industrial design, training programs and market studies.

***Includes electricity, gas, steam and air conditioning supply and, water supply; sewerage, waste management and remediation activities.

Appendix II. Correlation matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Personal training	1.000																
2. R&D support	0.134	1.000															
3. Tech. adoption & management	0.132	0.101	1.000														
4. Production certificate	0.191	0.096	0.091	1.000													
5. Entrepreneurship support	0.206	0.155	0.120	0.155	1.000												
6. Export promotion	0.102	0.103	0.118	0.107	0.265	1.000											
7. Size	0.077	0.045	**0.037**	0.293	0.070	0.085	1.000										
8. Export	0.038	0.080	0.045	0.125	0.075	0.116	0.252	1.000									
9. Group	**0.036**	**0.032**	**0.031**	0.139	0.057	0.062	0.350	0.155	1.000								
10. Foreign subsidiary	**0.032**	**0.000**	**0.015**	0.135	**0.005**	**-0.013**	0.202	0.155	0.278	1.000							
11. Start-up	**-0.013**	**-0.019**	**-0.003**	**-0.030**	**-0.003**	**0.001**	-0.126	**-0.016**	**-0.031**	**-0.022**	1.000						
12. Public firm	**0.009**	**-0.015**	**-0.016**	0.049	**-0.020**	**0.015**	0.091	**-0.020**	**0.004**	**-0.007**	0.042	1.000					
13. Low-tech industry	**-0.027**	**0.006**	**-0.015**	**0.000**	0.050	0.044	**0.013**	0.088	**0.001**	**-0.027**	**-0.017**	-0.066	1.000				
14. High-tech industry	0.101	0.046	0.054	0.143	0.059	**0.006**	**0.007**	**-0.005**	**-0.004**	**0.002**	**-0.005**	**-0.015**	-0.180	1.000			
15. KNIBS*	-0.048	**-0.031**	**0.001**	-0.060	-0.080	**-0.036**	**-0.005**	-0.069	**0.008**	**-0.017**	**0.001**	-0.045	-0.459	-0.140	1.000		
16.KIBS**	**0.026**	**0.004**	**-0.007**	**-0.022**	**0.002**	**0.001**	-0.064	-0.079	**-0.019**	**-0.022**	**-0.003**	**0.009**	-0.459	-0.140	-0.357	1.000	
17. Mining and quarrying	**-0.005**	**0.008**	**0.005**	**0.027**	**0.001**	**-0.022**	0.088	0.184	0.081	0.183	**0.025**	**-0.011**	-0.126	-0.038	-0.098	-0.098	1.000
18. Supply activities	**0.008**	**-0.015**	**-0.016**	**-0.001**	**-0.020**	**-0.021**	0.055	**-0.036**	-0.049	**0.004**	0.040	0.343	-0.121	**-0.037**	-0.094	-0.094	**-0.026**

* Knowledge non-intensive business services (KNIBS), ** Knowledge intensive business services (KIBS).

Correlation estimates in bold indicate significance at 5% level.

DEVELOPMENT IN DIGITAL AND POST-TRANSITION ERA: ONLINE PRIVACY CONCERN APPROACH

Vedran Recher, MA[355]

Jelena Budak, PhD[356]

Edo Rajh, PhD[357]

Abstract

The online privacy issue has received a great deal of scholarly attention in the past decade. Studies for Western developed societies have shown that privacy concern and risk awareness are higher in more developed countries; however, the relevance of online privacy concern in the context of economic development remains unexplored. In a digital society, online privacy concern could have significant impact on the real economy; therefore it is not to be underestimated. If indeed development is influenced by the penetration of new technologies, the connection between online privacy concern and development could have a major role in post-transition economies. In this paper we try to determine the level of online privacy concern in a set of post-transition, Western Balkan countries and its repercussions on the future development of these countries. Past research for the Western Balkan region has shown significant structural differences in general privacy concern and here we introduce a new approach which focuses on online privacy concern. We contextualize online privacy with the implementation of reforms which are crucial for the Western Balkan region as well as for other less developed and post-transition economies. The differences in the level of online privacy concern among post-transition Western Balkan countries are discussed in the context of their economic, technological and institutional development, and policy implications are suggested.

Keywords: *online privacy concern, development, Western Balkans*

JEL classification: D18, M15, O39

This work was supported by Croatian Science Foundation under the project 7913.

[355] The Institute of Economics, Zagreb; Trg J. F. Kennedyja 7; 10000 Zagreb, Croatia; e-mail: vrecher@eizg.hr
[356] The Institute of Economics, Zagreb, Trg J. F. Kennedyja 7, 10000 Zagreb, Croatia, e-mail: jbudak@eizg.hr
[357] The Institute of Economics, Zagreb; Trg J. F. Kennedyja 7; 10000 Zagreb, Croatia; e-mail: erajh@eizg.hr

1 Introduction

Online privacy has received a great deal of scholarly attention in the past decade. Studies for Western developed societies have shown that privacy concern and risk awareness are higher in more developed countries. This is not a surprising result, but is in line with Maslow's hierarchy of needs (Maslow, 1943); when basic needs are fulfilled, only then people tend to care about their privacy, which is the case in more developed countries. Therefore, it is important to realize the relevance of online privacy concern in the context of economic development, which is currently an unexplored area of the online privacy concern discourse. If there is indeed a connection between online privacy concern and economic development as we expect, it is undoubtedly a subtle and indirect one. However, in a digital society, online privacy concern could have sufficient impact on the real economy not to be underestimated. Privacy concern in an online environment is important for the implementation of reforms (e.g., e-government), and for enhancing the business climate (e.g., social networks, online stores, information gathering). Proper management of online privacy concern might facilitate creating successful business policies (e.g., marketing strategies), and could benefit national security and political stability. In this paper we aim to determine the level of online privacy concern in Western Balkan countries and its repercussions on the future development of these countries.

Past research for the Western Balkan region (Budak, Rajh, & Anić, 2015) has shown significant structural differences in privacy concern in everyday life based on age, education, employment and country of origin. This research introduces novelties in the model; we use a more contemporary approach which focuses on *online* privacy concern. This area of research is represented in the US and gaining importance in the European context (see for example: European Commission, 2011), but to the best of our knowledge studies focused on post-transition economies are scarce. However, recent report for Czech Republic by Lupač, Chrobáková, & Sládek (2015) clearly shows the growing importance of this line of research. In European Commission (2011) report, it is stated that over half of Internet users in Europe feel uncomfortable with profiling on the Internet. The most significant risks associated with disclosure on the Internet are being a victim of fraud (particularly by online shoppers), having one's information used without one's knowledge, and having one's information shared with third parties without one's agreement (European Commission, 2011: 204-205). In Czech Republic, about thirty percent of users are concerned that the government or corporations are violating their privacy online, and only twenty five percent of users is concerned about other people violating their privacy online, while seventy five percent of users claim that they are actively protecting their online privacy (Lupač, Chrobáková, & Sládek, 2015).

Our intuition is that economic development in the post-transition era will be majorly influenced by the penetration of digital technologies. Furthermore, we contextualize online privacy with the implementation of reforms which are crucial for the Western Balkan region as well as for other less developed and post-transition economies, and we inspect this issue with regards to improving the business climate and supporting economic development. What is the level of online privacy concern in a set of Western Balkan countries? Is there a link between development indicators and measures of online privacy concern, and if so, what is the role of technology and institutional factors? This research aims to shed light to these underexplored but intriguing questions for the future of post-transition economies.

We have conducted a large survey in Bosnia and Herzegovina, Croatia, FYR of Macedonia and Serbia with over 2,000 respondents forming nationally representative samples for four countries in the region. The large general population data enabled an empirical analysis of attitudes and behaviors of citizens related to privacy concern in the Western Balkans. We have examined the level of online privacy concern and its determinants in terms of gender, age, education and the country of origin, controlled by internet usage, and constructed the PRICON (PRIvacy CONcern)

index, measuring the level of people's concern for privacy when acting online. The differences in the level of online privacy concern among post-transition Western Balkan countries are discussed in the context of their economic, technological and institutional development.

The paper is structured as follows. The next section is a literature overview of privacy and online privacy concern and findings relevant for the privacy and development nexus and for our set of countries. The third section describes the institutional set-up as defined by the European Union (EU) accession process and its importance for privacy. Methodology and data are explained in chapter four, and the results are discussed in section five. The last section concludes.

2 Literature Overview

There is a growing literature on online privacy; however, the impact of online privacy concern on different aspects of offline life remains somewhat esoteric. As Reed (2014) notes, being online today goes beyond internet usage. Therefore, it is important to comprehend the intertwinement between online privacy concern and its economic consequences in the real world. In this paper we will contextualize internet penetration and online privacy concern with economic development. Obviously, before conducting an analysis it is important to perceive the complex notion of privacy in general.

Alan Westin provided one of the most cited definitions of privacy: "Privacy is the claim of individuals, groups or institutions to determine for themselves when, how, and to what extent information about them is communicated to others" (Westin, 1970). In a modern society, privacy is recognized as an individual right, but also as a social and political value (Raab & Goold, 2011; Solove, 2008a; Goold, 2010). Solove (2008a) argues that in a modern society "the value of privacy must be determined on the basis of its importance to society, not in terms of individual rights". Fuchs (2011) also emphasizes this important distinction and argues that the question is not how privacy can be best protected, but in which cases whose privacy should be protected and in which cases it should not be protected. The dominant approach to privacy in the literature is that privacy is related to individual rights to protect one's self, from the state and organizations and from other individuals. The other approach sees privacy as a social value: common good, public value, collective value (Regan, 1995; Fuchs, 2011), and a political value.

Flaherty (1989) emphasizes the distinction between privacy and data protection. He argues that "privacy" is a broad and all-encompassing concept that contains a whole host of human concerns about various forms of intrusive behavior, including wiretapping, surreptitious, physical surveillance and mail interception. On the other hand, "data protection" is a form of privacy protection that is involved with control of the collection, use and dissemination of personal information. Therefore, data protection is implemented to limit this type of surveillance by third persons and thus to preserve individual privacy. It is at present the most critical component of privacy protection, because of the ongoing automation of databases. Solove (2008b) exhibits a pyramid concept of data abuse and argues that abuse of personal information is ubiquitous in the digital age, but not due to technology but due to government and business practices. At the top of the pyramid is the misuse of personal information in obviously harmful ways. In the middle of the pyramid are leaks of personal information from the company or organization databases. At the bottom of the pyramid is insecurity on how well the data are protected. In this study we are interested in people's concern about these intrusive behaviors. Moreover, we examine the antecedents of online privacy concern and observe its interaction with economic, institutional and technological development.

Previous studies indicate that there are differences in information privacy concerns across cultures (Dinev et al. 2005; Ur & Wang, 2013), and that different groups of people share different

views on surveillance and privacy (Haggerty & Gazso 2005; Wirtz et al. 2007). Citizens' attitudes towards privacy and data protection also vary according to demographic characteristics (e.g., European Commission, 2011). Wirtz et al. (2007) indicate that citizens who show less concern for (internet) privacy are those individuals who perceive that corporations are acting responsibly in terms of their privacy policies and that sufficient legal regulation is in place to protect their privacy, and have greater trust and confidence in these power-holders. On the other hand, if those in power positions (regulators and firms) are not seen to be responsible, consumer concern is likely to increase, and thus could lead to defensive measures to reduce the level of dependence on these power-holders; for example, by decreasing their demand for the online services they deem risky in terms of their privacy.

The spread of new technologies and global communications has raised the issue of privacy when acting online. Privacy concern in the everyday life of people and organizations is strongly associated with their presence in the cyber world, and indeed online privacy concern is in the focus of contemporary research.

Based on their survey and analysis, Buchanan et al. (2007) suggest three scales for measuring the level of online privacy concern: a general one, called "privacy concern", which is defined through people's attitude towards privacy, and two behavioral ones, "general caution" and "technical protection", related to people's demeanor with regards to protection of their privacy. However, our focus is on the general scale of online privacy concern, since it is well documented in the literature that people's privacy concern is rarely related to behavior focused on actually protecting their privacy (see for example Acquisti, 2004; Acquisti & Grossklags, 2007).

Although no study has explicitly examined the relationship between the level of economic development and online privacy concern *per se*, from most of the studies examining online risk awareness and online privacy concern it is implicitly clear that more developed countries have a higher level of online privacy concern. For example, Warren & Brandeis (1890) describe the development of new privacy laws resulting from political, social and economic changes that entail the recognition of new rights. Wang, Norcie & Cranor (2011) find that American social network users are the most privacy concerned, followed by the Chinese and Indians; which is also in line with their level of economic development. Additionally, it is intuitive that this relationship holds without empirical proof for at least two reasons: (i) less developed societies have limited access to broadband internet (Reed, 2014), (ii) based on Maslow's hierarchy of needs (Maslow, 1943), it is hard to expect significant privacy concern in undeveloped economies where basic human needs are not met. Furthermore, as Goold (2010) notes, the state must also recognize that privacy has an important role to play in the promotion of democracy and other fundamental human rights such as freedom of expression and freedom of association, which often go hand-in-hand with economic development.

The channels through which the relationship between development and online privacy concern operates are well documented in the literature, but are rarely explicitly stated as such. For example, Belanger, Hiller & Smith (2002) stress that winning public trust is the primary hurdle to continued growth in e-commerce, and Liu et al. (2004) state that concerns regarding privacy and trust are potential obstacles to growth and represent important issues to both individuals and organizations. Furthermore, companies realize that protecting the private information of their consumers is an essential component in winning their trust (McKnight & Chervany, 2001). Moreover, privacy concerns often present obstacles to the adoption of new technologies and services (Sheng, Nah, & Siau, 2008).

Studies exploring privacy concern in developing countries and in particular for post-transition economies are scarce. Past research of general privacy concern in Western Balkan countries has

shown that demographic characteristics as well as the country of origin stand as significant determinants of privacy concern (Budak, Rajh, & Anić, 2015). Anić, Rajh, & Budak, (2014) find for a set of Western Balkan countries that EU membership is positively related to privacy concern in general, i.e. citizens of EU member states are more concerned about their online privacy and are less willing to provide information about themselves.

In line with the views stated above, we further contextualize online privacy concern in Western Balkan countries with their EU accession path as an important determinant of their future evolution to developed economies. Moreover, in the fifth section we contribute to the existing literature on antecedents of online privacy concern as well as deepen the understanding of complex interaction of online privacy concern and economic development.

3 EU Accession Path and Privacy

To a large extent, the EU accession process determines the objectives and pace of economic policies, reforms and supportive regulation in acceding countries. By signing the Stabilization and Association Agreement (SAA), one of the first steps of the accession process, the harmonization of national legislation with the EU *acquis communautaire* begins. During the negotiation process that follows for candidate countries, the European Commission carefully monitors national progress in implementation of recommended policies. The Western Balkan countries observed in this research are on different milestones along the EU membership path. Croatia is an EU member state as of July 1, 2013. Two candidate countries are FYR of Macedonia and Serbia. FYR of Macedonia was granted the candidate country status in December 2005 and the accession negotiations opened in October 2009. Serbia was granted the EU candidate country status later, i.e., in March 2012 and the formal start of Serbia's accession negotiations was in January 2014. Bosnia and Herzegovina has still a long way ahead to EU membership. Bosnia and Herzegovina was identified as a potential candidate in June 2003, and the SAA signed in 2008 has been ratified but has not yet entered into force (European Commission, 2015).

Differences in the path to the EU might have a crucial role because, as David Lipton, IMF First Deputy Managing Director, wrote in the foreword of the IMF publication on 15 years of economic transition in the Western Balkans, “perhaps the most tangible achievement of all lies in the fact that most of the Western Balkan countries are on a path towards European Union accession” (International Monetary Fund, 2015:5). We argue that EU accession is relevant to contextualizing privacy for a set of reasons, first of all because of EU regulations implemented in the course of the accession.

In the EU in general, data protection and fundamental safeguarding of privacy rights of EU citizens are of great importance, and a majority of EU citizens show concern about their privacy and data protection (European Commission, 2011), which indicates that people are aware of potential risks of sharing data. O'Mahony & Flaherty (2009) analyze the EU legal framework for consumer protection and conclude that many deficiencies and shortcomings still exist. The reason behind this is the extremely fast-changing online environment and the inability of regulations to follow its advancements.

EU privacy directives stem from the European Convention on Human Rights defining a right to the respect for private and family life (European Court of Human Rights, 2015).[358] For a summary of the European privacy policy and a list of the most relevant policy documents from

[358] Bodea et al. (2013) note that, unlike the EU, the US does not recognize a general right to privacy, nor does a US data protection authority exist; instead, privacy protection is regulated by sectorial regulations (e.g., in healthcare, communications, children’s privacy).

2000 onwards within international organizations, the European Union, selected member states and the US related to security, privacy and surveillance policy, it is instructive to consult Bodea et al. (2013). In the EU privacy regulative framework overview, they emphasize that national regulations of the EU countries have to conform to the European Commission (EC) directives. EU accession sets common standards, and envisaged convergence of behavior, concerns and attitudes is highly likely. The analysis of the regulation conformity issue goes beyond the scope of this research; however, it is important to note that national legislation and by-laws are not unified across member states.

The evolving standards and the protection of privacy are linked to trust in institutions and trust in the broader European digital agenda and information society, both directly influenced and positively correlated by the EU accession process. In developed countries, trust is important for the emergence and successful development of ICTs and trust in new technologies will increase their adoption and use (Bodea et al., 2013). European citizens should exercise their rights against challenges to privacy that include technological change. There is a discussion of a wide range of privacy protecting measures, often centered on increasing individual control of personal data. This suggests that technological developments have precipitated a re-evaluation of privacy regulation. Findings of the EC-funded research project PRISMS as described by Bodea et al. (2013) recommend using privacy impact assessment (PIA) in information processes as risk assessment, and identifying ways that privacy protection can be included in public policy decision-making (e.g., whether to install video surveillance). PIA is a risk management tool helping organizations to preserve their brand reputation and trust of employees or customers when deploying a new technology, product, service or other initiative involving personal data (see more in Wright & de Hert, 2012). Privacy impact assessment is a tool, a process, a methodology to identify, assess, mitigate or avoid privacy risks and, in collaboration with stakeholders, to identify solutions. It is gaining interest as a new instrument in Europe, although it has been applied for over two decades in the US, New Zealand and other countries outside Europe (Clarke, 2009). Here we do not advocate applying PIA or not, but mention it to raise awareness of privacy gaining importance even in terms of companies' operational costs. Taking privacy into consideration is rapidly penetrating into all aspects of our lives, and this supports the need for research on the issues presented here.

4 Methodology and Data

The qualitative research prior to the construction of the survey questionnaire and pilot testing of the survey tool was conducted in Croatia in 2011 (Budak, Anić & Rajh, 2013). Identical questionnaires translated into national languages were employed in Bosnia and Herzegovina, Serbia and FYR of Macedonia in 2012. The interviews were conducted in each country by telephone and operated by professional market research agencies under the authors' supervision. The public opinion survey was conducted on a large net sample of 2,006 citizens in total (around 500 citizens per country). In all observed countries the survey was conducted among the adult population aged 18 to 70, on a nationally representative sample regarding regional distribution. Demographic variables about the respondents included questions about gender, age, household size, education and country of residence. The sample statistics are presented in Table 1.

Table 1 Summary Statistics of Sampled Respondents, n=2,006

	%		%
Gender		Country	
Male	49.7	Bosnia and Herzegovina	24.9
Female	50.3	Croatia	25.2
Age		FYR of Macedonia	24.9
18-34	31.5	Serbia	24.9
35-54	37.4	Internet usage	
55-70	31.1	Yes	64.2
Education		No	35.8
Primary school	14.2		
Secondary school	59.9		
University and higher education	25.9		
No answer	0.1		

The 62-item questionnaire included 59 questions in the form of a statement and each item was measured by Likert-scaled items ranging from 1 (strongly disagree) to 5 (strongly agree) and three yes/no questions.[359]

For the purpose of this research we selected three items from the questionnaire, related to the individual level of online privacy concern. These were the following statements:

- Information I send over the internet (e-mail, Facebook and other) could be misused.
- The usage of computers and ICT increases the possibility of personal data manipulation.
- I am concerned about the volume of personal information and data stored on computers that might be misused.

The statements were evaluated on a 5-point Likert scale which enabled us to calculate the mean value. On the individual level, the composite measure of online privacy concern was calculated as the unweighted average score of responses on the three selected items, in order to obtain the PRICON index. A higher value of the PRICON index denotes more online privacy concern and vice versa (Table 2).

Table 2 Online Privacy Concern PRICON Index, per Country

Country	Online privacy concern
	PRICON index
Croatia	4.26
FYR of Macedonia	4.10
Serbia	3.91
Bosnia and Herzegovina	3.57

Source: Authors' calculations.

Differences in online privacy concern between various groups were compared with analysis of variance (ANOVA) and t-test analysis.

5 Results and Discussion

The ANOVA results indicate that there are statistically significant differences in online privacy concern according to respondents' education, age and country of origin (Table 3). Groups with higher education levels also exhibit higher levels of online privacy concern. The oldest group of respondents exhibits lowers levels of online privacy concern when compared with the youngest

[359] The questionnaire is available from the authors upon request.

and middle age groups. Respondents from Croatia exhibit the highest levels of online privacy concern, followed by respondents from FYR of Macedonia and Serbia. Respondents from Bosnia and Herzegovina have the lowest levels of online privacy concern.

Table 3 ANOVA Results – Dependent Variable: Online Privacy Concern

Independent variable	PRICON mean value	St. dev.	N	ANOVA
Education				F=81.40
Primary school or less	3.43	0.83	285	p=0.00
Secondary school	4.01	0.76	1201	
University and higher education	4.12	0.79	519	
Age				F=11.85
18-34	4.00	0.77	632	p=0.00
35-54	4.03	0.79	751	
55-70	3.83	0.85	623	
Country				F=76.89
Croatia	4.26	0.69	506	p=0.00
Serbia	3.91	0.81	500	
Bosnia and Herzegovina	3.57	0.86	500	
FYR of Macedonia	4.10	0.69	500	

T-tests were conducted to test differences in online privacy concern by gender and internet usage (Table 4). The results indicate that there are no statistically significant differences in online privacy concern between males and females. At the same time, there are statistically significant differences in online privacy concern by internet usage groups. Those respondents that use the internet exhibit higher levels of online privacy concern when compared to respondents that do not use the internet. At first, this might sound like a tautology, but items taken into account for the PRICON index also encompass statements for respondents who are concerned about what happens with their personal data provided through other channels in an online setting, although they do not use the internet themselves.

Table 4 T-test Results – Dependent Variable: Online Privacy Concern

Independent variable	PRICON mean value	St. dev.	N	T-test
Gender				t=0.17
Male	3.95	0.77	996	p=0.86
Female	3.96	0.84	1010	
Internet usage				t=9.94
Yes	4.09	0.77	1287	p=0.00
No	3.72	0.82	719	

The analysis shows different socio-demographic attributes of individual respondents to stand as determinants of online privacy concern. On the other hand, people's actual behavior and actions online occur in given circumstances, i.e., in different environments. The environment is marked by economic development, available technological infrastructure and institutional framework. Online privacy concern thus might be explained by three pillars of a country's development: economic, technological and institutional development (Figure 1).

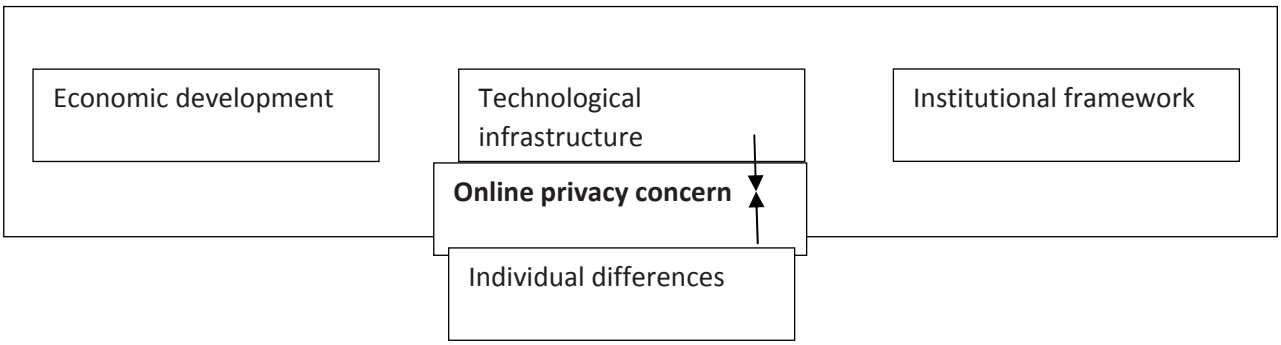


Figure 1 Contextualizing Online Privacy Concern and Development

The standard indicator of *economic* development is GDP per capita, depicting the country's level of economic development. The *technological* development pillar stands for the country's technological infrastructure in terms of readiness to adopt new technologies and internet penetration. Generally, it could be said that the higher the internet penetration, the higher the online privacy concern. This pillar describes the availability of internet services and new technologies enabling online activities whose usage might raise privacy concerns. The *institutional* set-up is strongly defined by the EU accession process and indicators of democratic rights and liberties. Among the analyzed countries, Croatia is the only EU member state, while the other observed countries are in the process of joining the EU, yet with different status. Serbia and FYR of Macedonia are candidates for joining the EU, while Bosnia and Herzegovina is a potential candidate for accession. These countries are not fully implementing EU legislation, and a major weakness is monitoring and enforcing privacy legislation in practice. Therefore, one could assume that people in the non-EU member states might be less aware of potential privacy risks and less concerned about their privacy. More freedom in the society brings higher awareness of privacy infringements and rising requirements to adequately protect personal information. Table 5 presents selected economic, technological and institutional indicators, and country ranking per level of online privacy concern in descending order. The data are intentionally used for the year 2012, i.e., at the time of the survey, except for the current EU status. This overview at first glance suggests there is a link between online privacy concern and development: online privacy concern is the highest in Croatia, which in our set of post-transition Western Balkan countries stands as the most developed economy, with advanced infrastructure for online activities, and the only EU member state in the region. However, the pecking order of the other three countries is not that clear-cut. FYR of Macedonia is second with regards to the level of online privacy concern, but in terms of GDP per capita and institutional set-up, it fares somewhat worse than Serbia in third place. The reason for the high level of online privacy concern in FYR of Macedonia is probably the relatively well-developed technological infrastructure – the best among the three non-EU member states. In contrast, Serbia fares well in the institutional set-up, but is lagging behind significantly in the technological pillar. Even Bosnia and Herzegovina, the least developed country in the sample, has larger penetration of new technologies than Serbia. Consequently, it is fair to conclude that all three countries have to put in significant effort to close the gap even to Croatia, let alone other, more developed EU member states. All three countries need to find the recipe to kick-start their economies in terms of GDP per capita growth. Additionally, FYR of Macedonia should focus on improving the institutional set-up and Serbia on advancements on the technological front.

Table 5 Online Privacy Concern, Economic, Technological and Institutional Indicators per Country

Country	Online privacy concern	Economic development	Technological level achieved			Institutional set-up		
	PRICON index	GDP p.c.[1]	Availability of latest technologies[2]	Internet users[3]	Broadband internet[4]	EU status	Political rights[5]	Civil liberties[5]
Croatia	**4.26**	**20,182**	**5.4**	**60.3**	**18.3**	**Member state**	**1**	**2**
FYR of Macedonia	4.10	11,268	4.6	51.9	12.5	Candidate country	4	*3*
Serbia	3.91	12,504	*4.0*	*40.9*	*8.5*	Candidate country	*2*	**2**
Bosnia and Herzegovina	*3.57*	*9,149*	4.4	52.0	10.4	*Potential candidate*	4	*3*

[1] Gross domestic product per capita, PPP, constant international US$ 2011 (source: World Development Indicators, http://www.worldbank.org).

[2] Source: *The Global Competitiveness Report 2011-2012*, World Economic Forum (http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf).

[3] Percentage of individuals using the internet (source: *The Global Competitiveness Report 2011-2012*, World Economic Forum, http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf).

[4] Number of fixed broadband internet subscriptions per 100 population (source: *The Global Competitiveness Report 2011-2012*, World Economic Forum, http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf).

[5] Each country is assigned numerical ratings, with 1 representing the most free and 7 the least free (source: Freedom House, 2015, https://freedomhouse.org/report-types/freedom-world#.VVnTmfAYOI8).

6. Conclusions

In this paper we tried to contextualize online privacy concern with economic development. Previous research and common sense suggest that more developed countries have a higher level of online privacy concern. Indeed, country of origin proved to be a significant antecedent of online privacy concern, measured by the PRICON index. Furthermore, the level of online privacy concern rises with the level of education which is also expected. Less educated people are far less aware of privacy risks connected to internet usage and consequently far less concerned. The relationship between age and online privacy concern could best be described as a reversed U-shaped curve. This is also in line with intuition. Teenagers do not bother too much with the fact that everything they do online stays there permanently. As they age they become more and more aware of potential privacy infringements and risks, especially when starting to use more risky services, such as e-banking. Older people generally use the internet less and are therefore expectedly less concerned about their privacy online.

Croatia, as the relatively most developed country from the sample measured by GDP per capita, has the highest level of online privacy concern. Serbia and Bosnia and Herzegovina also have levels of online privacy concern in line with their levels of development achieved. However, FYR of Macedonia has a high level of online privacy concern considering its level of development. This discrepancy is best explained by the differences in technological advancements.

Obviously, EU accession path and membership play an important role in the development of Western Balkan economies. As countries are implementing reforms necessary to join the EU, people will probably become more aware of privacy issues. On the other hand, businesses and governments will need to follow these advancements by offering a broader scope of more technologically advanced services with better privacy protection. In this sense, the development of a digital society could influence the economic development in terms of GDP per capita. For example, high quality e-government services could reduce bureaucracy and help develop entrepreneurship and SMEs.

One possible policy implication of these conclusions could be better informing the general public about the possibilities and potential of new technologies. Furthermore, it is important to develop a sound institutional framework and build trust between government, citizens and businesses in order to advance on all fronts. To confirm these conclusions and obtain more tangible results than those presented in this paper, it would be useful to empirically test the concept suggested. Another possible limitation of this study is that the data is for 2012 because Internet usage and technological advancements are moving forward rapidly and one would expect that more recent data would differ substantially. Unfortunately, 2012 is the last year for which data for all observed countries were available and therefore comparable. Furthermore, a larger pool of post-transition countries is needed to validate the results presented here.

References

1. Acquisti, A. (2004). Privacy in electronic commerce and the economics of immediate gratification. *Proceedings of the 5th ACM conference on Electronic commerce*, 21-29.
2. Acquisti, A., & Grossklags, J. (2007). What Can Behavioral Economics Teach Us About Privacy? *Digital Privacy: Theory, Technologies and Practices*, 363-377.
3. Anić, I.-D., Rajh, E., & Budak, J. (2014). *New information economy in post-transition countries: An economic approach to privacy concern*. Manuscript submitted for publication.
4. Belanger, F., Hiller, J., & Smith, W. (2002). Trustworthiness in electronic commerce: The role of privacy, security, and site attributes. *Journal of Strategic Information Systems, 11*(3-4), 245-270.
5. Bodea, G., Huijboom, N., van Oort, S., Merel, O., van Schoonhoven, B., Bakker, T., et al. (2013). Security and privacy policy in 21st Century Europe: An overview of privacy and security policy documents in the EU, six Member States and the USA. *PRISMS Collaborative project*.
6. Buchanan, T., Paine, C., Joinson, A. N., & Reips, U.-D. (2007). Development of measures of online privacy concern and protection for use on the Internet. *Journal of the American Society for Information Science and Technology, 58*(2), 157-165.
7. Budak, J., Rajh, E., & Anić, I.-D. (2015). Privacy Concern in Western Balkan Countries: Developing a Typology of Citizens. *Journal of Balkan and Near Eastern Studies, 17*(1), 29-48.
8. Clarke, R. (2009). Privacy impact assessment: Its origins and development. *Computer Law & Security Review, 25*(2), 123-135.
9. Dinev, T., Masssimo, B., Hart, P., Christian, C., Vincenzo, R., & Ilaria, S. (2005). Internet Users, Privacy Concerns and Attitudes towards Government Surveillance-An Exploratory Study of Cross-Cultural Differences between Italy and the United States. *BLED 2005 Proceedings, 30*.
10. European Commission. (2011). Attitudes on Data Protection and Electronic Identity in the European Union. *Special Eurobarometer 359*.
11. European Commission. (2015). Retrieved March 20, 2015, from http://ec.europa.eu/enlargement/countries/check-current-status/index_en.htm
12. European Court of Human Rights, . (2015). Retrieved March 24, 2015, from http://www.echr.coe.int/Documents/Convention_ENG.pdf
13. Flaherty, D. H. (1989). *Protecting privacy in surveillance societies: The federal republic of Germany, Sweden, France, Canada, and the United States.* UNC Press Books.
14. Fuchs, C. (2011). The Political Economy of Privacy on Facebook. *The internet & Surveillance - Research Paper Series*(9).
15. Goold, B. J. (2010). How much surveillance is too much? Some thoughts on surveillance, democracy, and the political value of privacy. *Surveillance in a constitutional government*.
16. Gurung, A., & Jain, A. (2009). Antecedents of Online Privacy Protection Behavior: Towards an Integrative Model. In K. Chen, & A. Fadlalla, *Online Consumer Protection: Theories of Human Relativism* (pp. 151-190). New York: IGI Global.
17. Haggerty, K., & Gazso, A. (2005). The public politics of opinion research on surveillance and privacy. *Surveillance & Society, 3*(2/3), 173-180.
18. International Monetary Fund. (2015). The western Balkans : 15 years of economic transition. *Regional Economic Issues Special Report*.

19. Liu, C., Marchewka, J., Lu, J., & Yu, C. (2004). Beyond concern: A privacy-trust-behavioral intention model of electronic commerce. *Information & Management, 42*(1), 127-142.
20. Lupač, P., Chrobáková, A., & Sládek, J. (2015). Internet in the Czech Republic 2014. *Prague: Faculty of Arts of the Charles University in Prague, Department of Sociology*.
21. Maslow, A. H. (1943). *Psychological review, 50*(4), 370-396.
22. McKnight, D., & Chervany, N. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce, 15*(4), 35-59.
23. O'Mahony, C., & Flaherty, P. (2009). The Legal Framework for Data and Consumer Protection in Europe. In C. Kuanchin, & A. Fadlalla, *Online Consumer Protection: Theories of Human Relativism* (pp. 326-346). New York: IGI Global.
24. Raab, C., & Goold, B. (2011). Protecting information privacy. *Equality and Human Rights Commission Research Report 69.*
25. Reed, T. (2014). *Digitized Lives: Culture, Power and Social Change in the Internet Era.* New York and London: Taylor & Francis; Routledge.
26. Regan, P. (1995). *Legislating privacy: Technology, Social values and Public Policy.* Chapel Hill: Blackwell Publishing.
27. Sheng, H., Nah, F. F.-H., & Siau, K. (2008). An Experimental Study on Ubiquitous Commerce Adoption: Impact of Personalization and Privacy Concerns. *Journal of the Association for Information Systems: Special Issue, 9*(6), 344-376.
28. Solove, D. J. (2008a). *Understanding Privacy.* Harvard University Press.
29. Solove, D. J. (2008b). The New Vulnerability: Data Security and Personal Information. (Radin, & Chander, Eds.) *Securing Privacy in the Internet*.
30. Ur, B., & Wang, Y. (2013). A cross-cultural framework for protecting user privacy in online social media. *Proceedings of the 22nd international conference on World Wide Web companion* (pp. 755-762). International World Wide Web Conferences Steering Committee.
31. Wang, Y., Norcie, G., & Cranor, L. F. (2011). Who Is Concerned about What? A Study of American, Chinese and Indian Users' Privacy Concerns on Social network Sites. *Trust and trustworthy computing*, 146-153.
32. Warren, S. D., & D, B. L. (1890). The Right to Privacy. *Harvard Law Review, 4*(5), 193-220.
33. Westin, A. F. (1970). *Privacy and Freedom* (2nd ed.). New York: Atheneum.
34. Wirtz, J., Lwin, M., & Williams, J. (2007). Causes and consequences of consumer online privacy concern. *International Journal of Service Industry Management, 18*(4), 326-348.
35. Wright, D., & de Hert, P. (2012). *Privacy Impact Assessment.* Springer Science & Business Media.

THE IMPACT OF SELECTED INNOVATION FACTORS ON COMPANY PERFORMANCE IN SLOVENIA

Katja Rašič, PhD[360],
Matjaž Mulej, PhD, PhD[361],
Vesna Čančer, PhD[362]

Abstract

Together with technology research and knowledge, innovativeness has a crucial role in dealing with the main problems of European Union, and in supporting the European Union model that is based on economic growth, social responsibility and sustainable development. This paper focuses on innovation – officially and theoretically recognized as a key to growth and competitiveness, because it is the basis for invention, innovation and the invention-innovation-diffusion process and includes innovation of all contents. The goal of the paper is to report on a research including a survey on the impact of the selected innovation factors on company performance in the transitional economy, including companies in Slovenia in 2013. We present how we have defined economic growth as company performance on the microeconomic level of the Republic of Slovenia. We answered the following research question: What areas of innovation affect the company performance, and thus the economic growth, and how can we measure them? The descriptive statistic was used to determine the average agreement with the statements regarding innovation at the microeconomic level. Factor analysis using the Principle Axis Factoring method was conducted to determine the factors of innovation and company performance. Based on the saved factor scores, multiple regression analysis was used to determine the influence of the selected factors of innovation on the performance of companies. The results show that the highest mean of agreement is achieved for the statement that 'the company does not have new, innovative processes in production, in innovative processes in services and does not have innovative processes in the logistics of products/services.' The lowest mean of agreement is achieved for the statements that 'the company cooperates with universities' and that 'other institutions developed new, innovative processes in production or new, innovative processes in logistics of products/services'. The results let us answer the research question: both innovation factors, government mechanisms and cooperation with the business, and innovative process - innovative products/services and marketing of innovative products/services, have statistically significant positive impact on the company performance. With an emphasis on the areas of innovation that affect economic growth, the paper presents only a part of the more extensive research that concentrates on technology research, innovation, and knowledge indicators and their influence on company success at the microeconomic level, and quality of life, the case being the Republic of Slovenia.

Keywords: *innovation, indicator, company performance, transitional economy*

[360] Ministry of Infrastructure, Slovenia, Langusova 4, Ljubljana, katja.rasic@gov.si
[361] University of Maribor, Faculty of Economics and Business, Razlagova 14, Slovenia, matjaz.mulej@um.si
[362] University of Maribor, Faculty of Economics and Business, Razlagova 14, Slovenia, vesna.cancer@um.si

1. Introduction

The topic of the factors of economic growth is one of the most crucial issues of the current and the threatening financial, economic and social crisis. Technology research, innovativeness and knowledge have a crucial role in dealing with the main problems of European Union (EU), and in supporting the EU model that is based on economic growth, social responsibility and sustainable development (European Union, 2010).

The European Research Advisory Board recommended the invigoration of the European knowledge triangle (education, research and innovation) through the Structural Funds' "Energising Europe's Knowledge Triangle of Research, Education and Innovation through the Structural Funds". Research, knowledge, and innovation as well as the European knowledge triangle are based on the achievement of these objectives (Council of the European Union, 2007, p. 7). Innovation has a double meaning: it covers the invention-innovation-diffusion process and its outcome, which is a novelty that its users find a new source of their new benefit, including their competitiveness. It is in businesses officially and theoretically recognized as a key to growth and competitiveness, because it is the basis for invention-innovation-diffusion process and includes innovation of all contents (European Commission, 2008). Štrukelj (2015) speaks about 52 types of innovation.

The genuine education of citizens is one of the leading European innovation strategies. The European Institute of Technology has sought to assemble the three leading factors of the knowledge triangle, which includes a more successful education, research, and business innovation at the national government level. In light of the increasing capacity due to the increasing European education and, consequently, the results of research in a clearly defined marketing opportunity, the innovative European Institute of Technology built a bridge across the gap with the EU's international competitors (European Commission, 2008). Investment in knowledge and innovation in the EU rose to 50 billion euros from the Structural Funds in perspective 2007-2013. This is almost the same amount as the scientific-research budget of the European Commission (UNESCO, 2008).

The EU has poor availability of finance, costly patenting, lack of legal and tax level-playing field, outdated regulations and procedures, slow standard-setting, weaknesses in public education and innovation systems, failure to use public procurement strategically and fragmentation of efforts. The EU’s first innovation priority therefore includes rigorous fiscal consolidation and growth-friendly expenditure, and managing to maintain or increase public investments in innovation and research and development (Barroso, 2011).

The EU has complementary policies to support research, innovation and entrepreneurship in Europe's regions and Member States. Providing the basis for excellent research and innovation in Europe is a precondition for maintaining the EU model for sustainable development. The Structural Funds provide the EU's main and the most important instrument of cohesion policy; the latter's support to investment in research and innovation is seen as a support and strengthening of invention and innovation (without diffusion) capacities of individual Member States. Not only it provides, actually: enables economic benefit of Member States, it is also an important convergence factor of the EU (Council of the European Union, 2007). It was used for the implementation of the Lisbon Strategy.

Ribeiro et al. (2010) found a strong correlation between science and technology and the gross domestic product (GDP). Economic growth depends on scientific and technological resources. The goal of the Lisbon strategy is to transform each EU member state into a modern, dynamic economy with greater – also economic – knowledge and education (Council of the European Union, 2007). More and more researchers have sought to answer the question as to whether the social goal of

raising the GDP, regardless of other costs or the satisfaction of people, makes sense (see, e.g. Stiglitz, 2009; Steiner et al., 2015). The problem of satisfaction is crucial for at least three additional reasons:

1) Porter (1990, after Mulej, Dyck, 2014) showed that there had been four phases of development of the basis of competitiveness from (1) owning the natural resources, via (2) investment in using them and (3) innovation in using them to (4) affluence, which is a great life and a blind alley, because it ruins the previous ambition to work hard and makes a lot of room for tourism, drugs abuse and other empty free time;
2) The nature on the Planet Earth is no endless resource for satisfaction of the material needs despite of all technological innovation. It requires humankind's transition to a no-growth innovative economy, while the current affluence covers only 15% of humankind having at least six USD/day, refugees are about 60 million in 2015 (which is a much as the WWII murdered), the WWIII is here since the proclamation of the war on terrorism with at least 30 local wars taking place etc.
3) The environmental problems are too poorly considered by businesses that are interested in economic growth and one-sided rather than requisitely holistic innovation, and disregard even the consequences of their ambition and action for humankind's survival.

These data belong to the reasons for social responsibility to be accepted as a globally crucial topic by ISO 26000 (ISO, 2000) and proclaimed the way out from the current crisis (European Commission, 2011), hence a crucially needed non-technological innovation (e.g. Hrast et al., 2015; Mulej, Dyck, 2014; Mulej et al., 2013; Štrukelj, 2015; Zore, 2015). This means that the non-technological innovation is an equally, or even more, crucial topic. Though, data for empirical research on it are less accessible that the ones covered in the research that we report about here.

In order to cover the entire economic growth, one must measure and reflect new forms of technology research, innovation and knowledge and develop new indicators to measure them. With emphasis on the areas of innovation that affect economic growth, the paper presents only a part of the more extensive research that concentrates on technology research, innovation, and knowledge indicators and their influence on company success at the microeconomic level, and quality of life, the case being the Republic of Slovenia (Rašič, 2015). In order to cover the entire innovation process, one must measure and reflect new forms of innovation and develop new indicators to measure open innovation and innovation, instead of research and development (Arundel et al., 2008).

We start with the motion for a resolution of the European Parliament (2011) on the "GDP and beyond, measuring progress in a world that has changed". Also European Union (2010), Stiglitz et al. (2009), Costanza et al. (2009) and OECD (2015) work toward the same future goal as the EU, thereby defining indicators that are crucial for the creation of a new growth model to achieve economic growth for a better quality of life of all European citizens.

In this paper we report how we have defined economic growth as company performance on the microeconomic level of the Republic of Slovenia. We described innovation with the variables of government mechanisms to promote innovativeness and cooperation with the business, and innovative processes: products/services and marketing of innovative products/services. The research question is as follows: What areas of innovation affect company performance, and thus economic growth, and how can we measure them?

2. Methodology

The quantitative method of data gathering was used in the survey at the micro-economic level in the Republic of Slovenia. The questionnaire contains a combination of closed questions with a 7-point Likert type rating scale, from 1 – strongly disagree to 7 – totally agree. Based on the innovation and company performance, we developed indicators and variables created in accordance with the questionnaire. One of the sets of the questionnaire relates to innovation: government mechanisms and cooperation with the business, and innovative processes– products/services and marketing of innovative products/service. Statements regarding the above-mentioned areas of innovation were defined by the survey performed by Cigler et al. (2008) and the The harmonised survey questionnaire of the The Community Innovation Survey 2012 (EUROSTAT, 2012). Another set relates to company performance in the last two years for the company in which the respondent was employed. Statements of company performance were defined by the balanced scorecard (Kaplan and Norton, 2000).

The process of obtaining the selection of the sample included respondents from companies in the business register of Slovenia, AJPES data base iBON 2012 (AJPES, 2012). Units of the sample were spread out based on random sampling, which included 1,430 respondents or employees in companies of Slovenia. One employee filled data for one company. The questionnaire was posted on the website: http://www.1ka. Data collection took place in June and July 2013, by email. We received 288 completed questionnaires, representing the 20.14 % response rate.

The obtained data were analyzed by using descriptive statistics, factor and regression analysis. Before carrying out a factor analysis, we examined the suitability of the information for using this method. In the first step, we used Bartlett's test of sphericity and then calculated the Keiser–Meyer–Olkin (KMO) Measure of sampling adequacy. In the next step, we conducted the factor analysis using the principal axis factoring (PAF) method. The basic principle of the PAF method is to maximize the variance of the common factor, but based on an estimate of the variances which determine the number of factors (Field, 2005). In PAF (Warner, 2008), the analysis of the data structure focused on shared variance and not on sources of error that are unique to individual measurements. We applied PAF in two steps (Rašič, 2015). First, we determined the PAF method for assessing the communalities and then the Varimax rotation of the factor loadings. Based on the results of the factor analysis, limits for the inclusion of variables in the factor model were determined at the value of communalities 0.40 (Field, 2005). We excluded from the model any variables in which less than 40 % of the variance is accounted for. For easier factor interpretation, we applied the Varimax method, where the rotated factors were independent from each other. We saved factor scores in the SPSS program and thus created new variables. When answering the research question by regression analysis, we also met the criterion that the independent variables are not correlated.

3. Results

Table 1 shows that the highest mean of agreement regarding innovation at the microeconomic level is achieved for the statement that ‘the company does not have new, innovative processes in production, in innovative processes in services and does not have innovative processes in the logistics of products/services’; however, on average, respondents neither agree nor disagree with this statement (mean = 3.8). Moreover, the highest dispersion appears at this statement, too (standard deviation = 2). On average, respondents also neither agree nor disagree that ‘the company implements strategies that increase productivity’ (mean = 3.6), and that it ‘markets innovative products/services in the Republic of Slovenia’ (mean = 3.7). With all other statements about

innovation, the respondents on average slightly disagree. The lowest mean of agreement is achieved for the statements that 'the company cooperates with universities' (mean = 2.9) and that 'other institutions developed new, innovative processes in production or new, innovative processes in logistics of products/services' (mean = 2.9). (Table 1)

Table 1. Descriptive statistics about innovation

Statement	Mean	Standard Deviation
The company cooperates with universities.	2.9	**1.7**
The company implements strategies that increase productivity.	3.6	**1.5**
The progress of technology, knowledge and ideas is obtained from other companies.	3.2	**1.5**
We benefit from co-supportive companies' environment.	3.1	**1.5**
We invest in internationalization of companies, networking and cluster development.	3.0	**1.5**
We are active in organizations for companies support.	3.1	**1.5**
We are active in international research and development programs and projects.	3.0	**1.6**
We benefit from tax-free investment in research and development.	3.2	**1.6**
We benefit from co-financing the costs of employment of researchers who have switched from academia to business.	2.9	**1.5**
The company markets innovative products/services in the Republic of Slovenia.	3.7	**1.9**
The company markets innovative products/services in the Republic of Slovenia and in the European Union and other countries that are not members.	3.4	**1.7**
Innovative products/services were developed in the company.	3.4	**1.6**
Innovative products/services were developed by the company with the help of other institutions.	3.1	**1.5**
Innovative products/services were developed by other institutions.	3.0	**1.5**
The company placed innovative products/services on the market before other companies.	3.2	**1.6**
Total expenditure on innovation activity increased.	3.5	**1.6**
The company developed new, innovative processes in production or new, innovative processes in logistics of products/services.	3.3	**1.6**
With the help of other institutions, the company developed new, innovative processes in production or new, innovative processes in logistics of products/services	3.0	**1.5**
Other institutions developed new, innovative processes in production or new, innovative processes in logistics of products/services.	2.9	**1.5**
The company does not have new, innovative processes in production, in innovative processes in services and does not have innovative processes in the logistics of products/services.	**3.8**	**2.0**

Note: 1 – strongly disagree, 2 – disagree, 3 – slightly disagree, 4 – neither agree nor disagree, 5 – slightly agree, 6 – strongly agree, and 7 – totally agree

Source: Rašič (2015)

Table 2 shows that, on average, respondents slightly disagree with all statements about company's performance.

Table 2. Descriptive statistics about company performance

Statement	Mean	Standard Deviation
The profits based on new investment funds were increased.	3.2	**1.8**
Realized investments were increased.	3.3	**1.7**
Market value was increased.	3.3	**1.7**
Added value per employee was increased.	3.3	**1.6**
Average number of employees was increased.	3.1	**1.6**
Net revenue from sales was increased.	3.2	**1.6**
Financial sources are more accessible.	3.0	**1.5**
Percentage of capital was increased.	3.2	**1.6**
Exports of goods and services was increased.	3.1	**1.6**
Sales was increased.	**3.2**	**1.6**

Note: 1 – strongly disagree, 2 – disagree, 3 – slightly disagree, 4 – neither agree nor disagree, 5 – slightly agree, 6 – strongly agree, and 7 – totally agree

Source: Rašič (2015)

The results of Bartlett's test of sphericity ($p < 0.05$) and the value of KMO measure of sampling adequacy (KMO = 0.927 for innovation, KMO = 0.950 for company performance) show the suitability of data for factor analysis.

Since the values of communalities of the variables "The company cooperates with universities" and "The company implements strategies that increase productivity" were lower than 0.4, these two variables were excluded from further analysis. From the same reason, the following variables were excluded from further analysis, as well: "With the help of other institutions, the company developed new, innovative processes in production or new, innovative processes in logistics of products/services," "Innovative products/services were developed by other institutions," "Other institutions developed new, innovative processes in production or new, innovative processes in logistics of products/services" and "The company does not have new, innovative processes in production, in innovative processes in services and does not have innovative processes in the logistics of products/services". The results of factor analysis for innovation let us report that 67 % of variance is accounted for by two factors:

- Government mechanisms and cooperation with the business (36 % of variance), and
- Innovative products/services and marketing of innovative products/services (31 % of variance).

Based on factor loadings after Varimax rotation, the factor "Government mechanisms and cooperation with the business " is structured from the following variables: the progress of technology, knowledge and ideas is obtained from other companies; we benefit from co-supportive companies' environment; we invest in internationalization of companies, networking and cluster development; we are active in organizations for companies support; we are active in international research and development programs and projects; we benefit from tax free investment in research and development; we benefit from co-financing the costs of employment of researchers who have switched from academia to business. The factor "Innovative process: innovative products/services and marketing of innovative products/services" is structured from the following variables: the company markets innovative products/services in the Republic of Slovenia; the company markets innovative products/services in the Republic of Slovenia and in the EU and other countries that are not members; innovative products/services were developed in the company; innovative products/services were developed by the company with the help of other institutions; the company placed innovative products/services on the market before other companies; total expenditure on innovation activity increased; the company developed new, innovative processes in production or new, innovative processes in logistics of products/services.

The results of factor analysis for company performance let us report that 78 % of variance is accounted for by only one factor. The structure of the factor "Company performance" is presented in Table 2.

After saving factor scores as new variables we performed regression analysis to answer the research question. The results of the regression (Table 3) demonstrated that the regression coefficient of government mechanisms and cooperation with the business was 0.319 and the regression coefficient of innovative process - innovative products/services and marketing of innovative products/services was 0.445. Both were significantly different from 0 ($p < 0.001$). Both factors, government mechanisms and cooperation with the business, and innovative process - innovative products/services and marketing of innovative products/services showed a positive effect on the company performance in the Republic of Slovenia.

Table 3. Effect of innovation on company performance

Parameter / Variable	Unstandardized Coefficients		Standardized Coefficients		
	B	Standard Error	Beta	*t*	*p*
Constant	0.769	0.198		3.887	**0.000**
Government mechanisms and cooperation with the business	0.319	0.076	0.277	4.231	0.000
Innovative process - innovative products/services and marketing of innovative products/services	0.445	0.072	0.405	6.202	0.000

Source: Rašič (2015)

4. Discussion and Conclusion

Innovation is a complex phenomenon that cannot be accounted for by one indicator only. The results of the regression analysis let us answer the research question: government mechanisms and cooperation with the business, and innovative process – innovative products/services and marketing of innovative products/services have a positive effect on company performance on the micro-economic level in Slovenia.

This paper does not cover the measurement of technology research and knowledge – component parts of triangle of research. Non-technological innovation, invention-innovation-diffusion process was not included in this research, nor were the values, culture, ethics, and norms, even if they were considered to be influential when it comes to technology innovation and innovation of technology invention-innovation-diffusion process and knowledge. It does also not deal with the effect of areas of knowledge at the macroeconomic level. It presents only a part of the requisitely holistic research, which conceptualizes and empirically verifies individual variables covering beside the company performance also the quality of life, and adds new measures of it to the traditional ones such as GDP (Rašič, 2015). Further research can be oriented towards the common synergy index, e.g. the knowledge triangle, which would include technology research, innovativeness and knowledge.

References

1. Arundel, A., Catalina, B., Minna, K. (2008). *Neglected innovators: How do innovative firms that do not perform R&D innovate?* Results of an analysis of the Innobarometer 2007 Survey, INNO-metrics Thematic Paper No. 215, MERIT March 31.
2. AJPES. (2012). iBON Business Community. http://www2.ibon.com/Default.aspx? (accessed 13.06.2013)
3. Barroso, J. M. (2011). Presentation to the European Council. Innovation priorities for Europe.http://ec.europa.eu/archives/commission_20102014/president/news/documents/pdf/innovation_en.pdf (accessed 24.04.2015)
4. Cigler, G., Drnovsek, M., Luksic, P., Orbanic, A., Peperko, A., Potocnik, P., Sterle, B. (2008). *Ciljni Raziskovalni Projekt, Šifra: V5-0251. Analiza prenosa znanja v gospodarstvo po znanstvenoraziskovalnih področjih (Goal Research Project V5-0251. The Analysis of the knowledge transfer to the economy by scientific research fields,* in Slovenian). Ljubljana: University of Ljubljana, Faculty of Economics.
5. Costanza, R., Hart, M., Posner, S., Talberth, J. (2009). *Beyond GDP: The need for the new measures of progress.* Boston: University of Boston.
6. Council of the European Union. (2007). *Competitiveness (Internal Market, Industry and Research), C/07/151, 11155/07 (151).* Luxembourg: Council of the European Union.

7. European Commission. (2008). *A more research-intensive and integrated European Research Area. Science, Technology and Competitiveness key figures report 2008–2009*. Brussels: Directorate-General for Research.
8. European Commission. (2011). *Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions: A Renewed EU Strategy 2011-14 for Corporate Social Responsibility. Com(2011) 681 Final*. Brussels: Directorate-General for Enterprise and Industry.
9. European Parliament. (2011). Report on GDP and beyond – Measuring progress in a changing world. http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A7-2011-0175+0+DOC+XML+V0//EN (accessed 15.05.2014)
10. European Union. (2010). *Investing in Europe's future: Fifth report on economic, social and territorial cohesion.* Brussels: European Commission, Directorate General for Regional Policy.
11. EUROSTAT. (2012). The Community Innovation Survey 2012. The harmonised survey questionnaire, July 23, 2012. http://ec.europa.eu/eurostat/documents/203647/203701/Harmonised+survey+questionnaire+2012/164dfdfd-7f97-4b98-b7b5-80d4e32e73ee (accessed 21.08.2015)
12. Field, A. (2005). *Discovering Statistics using SPSS*. 2nd Edition. London: Sage Publications.
13. Hrast, A., Mulej, M., Lorbek, D., Eds. (2015). *Proceedings of ten conferences 'Social Responsibility and Current Challenges', 2006-2015*. Maribor: IRDO.
14. ISO. (2000). ISO 26000 – Social Responsibility. http://www.iso.org/iso/home/standards/iso26000.htm (accessed 25.08.2015)
15. Kaplan, R. S., Norton, D. P. (2000). *Uravnoteženi sistem kazalnikov: preoblikovanje strategije v dejanja (The Balanced Scorecard: Translating Strategy into Action,* in Slovenian*)*. Ljubljana: Gospodarski vestnik.
16. Mulej, M., Božičnik, S., Čančer, V., Hrast, A., Jurše, K., Kajzer, Š., … Ženko, Z. (2013). *Dialectical Systems Thinking and the Law of Requisite Holism*. Litchfield Park: Emergent Publications.
17. Mulej, M., Dyck, R., Eds. (2014). *Social responsibility beyond neo-liberalism and charity* (Vols. 1-4). Sharjah: Bentham Science.
18. OECD. (2015). Better Life Index. http://www.oecdbetterlifeindex.org. (accessed 21.08.2015)
19. Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.
20. Ribeiro, L. C., Ruiz, R. M., Bernardes, A. T., da Motta e Albuquerque, E. (2010). Modelling Economic Growth Fuelled by Science and Technology. *Estudos Econômicos*. 40(2), pp. 319-340.
21. Rašič, K. (2015). *Sistem indikatorjev tehnično-tehnoloških raziskav, inovativnosti in znanja na primeru tranzicijskega gospodarstva (The System of indicators of technological research, innovativeness and knowledge: the case of transitional economy,* in Slovenian*)*, Doctoral Dissertation. Maribor: University of Maribor, Faculty of Economics and Business.
22. Steiner, G., Risopoulos, F., Mulej, M. (2015). Social responsibility and citizen-driven innovation in sustainably mastering global socio-economic crises. *Systems research and behavioral science*. 32(2), pp. 160-167.
23. Stiglitz, J. (2009). Towards a better measure of well-being. The Financial Times Limited, September 13, 2009. http://www.ft.com/cms/s/0/95b492a8-a095-11de-b9ef-00144feabdc0.html#axzz3dPaf0MOr / (accessed 18.06.2015)
24. Stiglitz, J., Sen, A., Fitoussi, J. P. (2009) Report by the Commission on the Measurement of Economic Performance and Social progress, Vol. 12, Commission on

the Measurement of Economic Performance and Social progress. http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf (accessed 09.07.2015)

25. Štrukelj, T. (2015). *Dialektični sistem vidikov za inoviranje upravljanja in vodenja tranzicijskega* podjetja (*Dialectical Systems of Viewpoints concerning Innovation of Governance and Management of a Transitional Enterprise*, in Slovenian), Doctoral Dissertation. Maribor: University of Maribor, Faculty of Economics and Business.
26. UNESCO (2008). Education for All by 2015 – Will we make it? http://unesdoc.unesco.org/images/0015/001547/154743e.pdf / (accessed 14.02.2013)
27. Warner, R. M. (2008*). Applied statistics: from bivariate through multivariate techniques*. Los Angeles: Sage Publications.
28. Zore, M. (2015). *Krepitev inovativnosti podjetij v Sloveniji z razvojem družbene odgovornosti (Strengthening of corporate innovativeness in Slovenia by development of social responsibility*, in Slovenian), Doctoral Dissertation. Maribor: University of Maribor, Faculty of Economics and Business.

ISBN 978-99938-46-54-3