

1st Dubrovnik International Economic Meeting

DIEM 2013

„Scientific Conference on
Innovative Approaches to the
Contemporary Economic Problems“

University of Dubrovnik
Department of Economics and Business Economics
27th-29th September 2013
Dubrovnik, Croatia



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Edited by:

Ivona Vrdoljak Raguž, Ph. D.

Iris Lončar, Ph. D.



University of Dubrovnik
Department of Economics and Business Economics
27th - 29th September 2013
Dubrovnik, Croatia

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KEY NOTE SPEAKERS:



Frederic Dimanche, Ph.D. Professor of Marketing, SKEMA Business School, France

Title of the keynote: **Managing Destinations - From Branding to Competitiveness Management**

Frederic Dimanche is professor of marketing at SKEMA Business School. He obtained his Ph.D. from the University of Oregon in 1990. After spending over 15 years in the USA, where he worked as Professor in the College of Business Administration of the University of New Orleans and as Research Director of The Olinger Group, a full service marketing research firm, he joined SKEMA Business School (formerly CERAM Sophia Antipolis) in 2001 to develop the Center for Tourism Management and Master programs in tourism and event management. Frederic has published numerous research articles and has been an active marketing consultant, working for private companies and national or regional tourism organizations in France, the USA, and other countries in Europe and Asia. Frederic is a chairman of the Board, Travel and Tourism Research Association Europe.



Peter Keller, Ph.D. Business and Economic Faculty, University of Lausanne (Switzerland), President of the International Association of Tourism Experts (AIEST)

Title of the keynote: **Competitive strategies for developed tourism countries: Why is productivity-led growth important?**

Prof. Dr. Peter F. Keller is honorary professor of the University of Lausanne (Switzerland) where he was Director of the Tourism Institute at the Business and Economic Faculty. He is teaching actually at the Universities of Lugano, St. Gallen and Bergamo. He is President of the International Association of Scientific Experts in Tourism (Aiest). He is member of the Board of Directors of Switzerland's National Tourism Organisation. He was also Director for Tourism of the Swiss Federal Administration. In this function, he was from 1991 to 2005 President of the European Commission of UNWTO and from 1982-88 and 1999-2007 President of the Tourism Committee of the OECD.



John Pisapia, Ph.D. Professor of Leadership Studies, Florida Atlantic University, USA

Title of the keynote: **Why companies Miss or Find the Future: Minds, Mindsets, and Thinking Differently!**

John Pisapia is a Professor of Leadership Studies at Florida Atlantic University (USA), a Fulbright Scholar at the Chinese University of Hong Kong; Scholar in Residence at the Chinese-American Center, Hong Kong; The Adam Smith Research Professor at the University of Glasgow; and founder of the Strategic Leader Network (SLN) a global learning community focused on the principles of strategic leadership. His work in strategic thinking and execution has received national and international attention. John holds memberships in the Strategic Management Society, the Academy of Management, and the International Leadership Association. He received a distinguished service award for profound leadership in international education by the International Schools Association. He also has been recognized as the first cooperative professor of the year by the American Association of School Superintendents (AASA), and John has been called the global professor, teaching and consulting with leaders in education and business in Mainland China, Hong Kong, Macau, Malaysia, India, New Zealand, Indonesia, France, Turkey, Croatia, Saudi Arabia, England, Scotland and across North and South America.

INVITED LECTURE:



Mirjana Pejić Bach, Ph.D., Department of Informatics, Faculty of Economics & Business, University of Zagreb, Croatia

Title of the Invited Lecture: **Obstacles to publication in ISI journal for the scientists from transition countries: How to overcome them?**

Mirjana Pejić Bach is a professor of Data Mining, System Dynamics, Management Simulation Games and Business Computing at the Faculty of Economics and Business, University of Zagreb. Her current research interests are in data mining and electronic business. She participates actively in research within the framework of the Ministry of Science and Technology's scientific projects, and is a leader of the project "Intelligent systems for controllership, finance and accounting" funded from the Croatian Ministry of Science, Education and Sports" (2007-). Mirjana Pejić-Bach was also educated in system dynamics at programmes delivered by Sloan School of Management, MIT.

FROM THE EDITORS

In 2013 the University of Dubrovnik will celebrate its 10th anniversary. On that occasion, the Department of Economics and Business Economics is organising a series of scientific events during September 2013 and this international conference is the central part of these events. We are all facing new challenges in all aspects of the business in the modern era of rapid changes and globalisation, especially now when global economy is troubled and in recession.

The 1st Dubrovnik International Economic Meeting - DIEM 2013 focuses on innovative approaches to contemporary economic problems. The overall objective was to attract and invite professionals and researchers from the field of economics and other relevant fields, who are aware of practical and theoretical problems of modern economy, to participate and give their contribution in solving these problems with active participation in presentations, working papers and panels and to provide maximum opportunity for presentation by young researchers.

Contributions of the 1st Dubrovnik International Economic Meeting - DIEM 2013 lays in participation of 100 scientists from 22 different countries. We believe that the actual response of participants to our first conference proves our expectations that DIEM will represent an essential link from the scientific and educational point of view.

The different views of the authors and conference participants as well as their suggestions of solutions to the same, will hopefully be interesting and useful not only to the academics, but also to all the participants in the world of economy.

We believe that DIEM will be recognised as an excellent platform to present new, contemporary issues and an active promoter of economic profession in the future.

Assistant professor Ivona Vrdoljak Raguž, Ph. D.
Assistant professor Iris Lončar, Ph. D.

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**OBSTACLES TO PUBLICATION IN ISI JOURNAL
FOR THE SCIENTISTS FROM TRANSITION
COUNTRIES: HOW TO OVERCOME THEM**

JEL classification: A10, Y20

Abstract

Publication in journals that are indexed in Web of Science© is an important venue for scientific researchers, although previously published papers indicate that there are substantial obstacles for researchers from developing countries. Four critical questions emerge: (1) How to pick a topic that is relevant for publication?, (2) How to select a journal for possible publication of research results?, (3) How to arrange the paper in accordance with IMRAD outline?, and (4) How to efficiently write the paper?. The goal of the paper is to propose simple yet highly applicable advice when answering these questions and thus pursuing the publication of a paper in the scientific journal with a closer look to economics, business and management journals indexed in Web of Science© that focus on Eastern European countries.

Keywords: publication, scientific research, knowledge economy

1. INTRODUCTION

Science is one of the most important human activities, since its result is collective, consistent, structured and reputable knowledge. Publication of scientific research results enables distribution, development and usage of knowledge. Contemporary scientific research is conducted in most of the cases in the institutional environment of universities and research institutes (Cooter et al., 1994). Researchers employed at those institutions are faced with the ever-increasing requirements for appointments that are vividly described by the well-known phrase “Publish or perish” (De Rand et al., 2005). It is of the highest importance where the results of the research are published and in last few decades journals indexed in Web of Science© is widely accepted standard (Adam, 2002).

Scientists from Eastern European (EE) countries that research economics, business and management issues have number of barriers towards publication. First, economics, business and management research in capitalist and communist/socialist societies was different due to the ideological reasons to the early 1990s when the perestroika caused the breakup of the former Soviet Union, uprisings in EE countries, and termination of the Cold War (Brown, 2007). Researchers from EE countries had a hard time in catching the step with their colleagues from developed countries, due to the diverse institutional milieu of scientific research (Olenik, 2012) and to the fact that authoritarianism regimes do not represent an enticing surroundings for the scientific production (Josephson, 1996). Second, language issues are important barriers for authors from non-English speaking countries, especially in social sciences (Gantman, 2011). Third, future professionals are rarely instructed in scientific writing and manuscript preparation (Keys, 1999). The only tough painstaking process of trials and errors researchers learn on four important issues: (1) choice of the topic relevant for publication, (2) choice of the journal for possible publication, (3) organization of the paper according to IMRAD outline, and (4) writing a paper with high level of proficiency.

The goal of the paper is to propose the framework that could facilitate the process of writing and publication of papers in scientific journal indexed in Web of Science©. The paper will also give a brief overview of journals indexed in Web of Science© that mostly publish the research on EE countries in the fields of economics, business and management.

2. THE 4 C’S OF SCIENTIFIC WRITING AND PUBLICATION

In order to publish the result of the scientific research, it has to be presented in the form of a scientific paper, which requires the skills of scientific writing. Scientific writing is based on the old tradition since the first scientific paper was published in the 17th century (Larsen et al., 2010), and some authors consider it even a highly demanding craft (Tychinin et al., 2005).

Due to the high standards that is imposed to the journals indexed in Web of Science© it is hardly possible, that badly written paper (even highly relevant), would be published in such a journal. However, scientific writing is rarely taught, and scientists in most of the cases have to learn its basic principles of the process of trials and errors.

A vast number of researchers wrote on the topic of writing and publication of scientific paper. Search on the topic “how to write a scientific paper” in Web of Science© database [10-08-2012] reveals 292 papers published in 240 journals (e.g. International journal of science education, Research in science education, Science education, Scientometrics, and Journal of Research in science teaching) from 47 countries (England, Canada, Spain, Netherlands, Germany and Italy with more than 10 publications). The authors deal with a number of topics like what constitutes an interesting research (Bartunek et al., 2006), publication of theoretical papers (Rindova, 2008) and qualitative research (Pratt, 2009), and reasons for rejection of papers (Kilduff, 2007; Linton, 2012). Also, numbers of relevant books also cover the topic (Day, 1998; Hartley, 2008).

In order to summarize the most important recommendations for the purposeful introduction of tentative paper authors of articles in Web of Science© indexed journal, framework is proposed that could facilitate the process: “The 4 Cs of scientific writing and publication” (Figure 1). The 4C’s framework is based on the proposition that following skills are important for successful publication of scientific research: (1) choice of the relevant topic that is explored according to the highest quality standards (Competence), (2) targeting the right journal with the right topic (Course), (3) careful planning of the composition of the paper (Composition), and (4) relating theory to methodology supported by competence in proficiency in writing (Content).

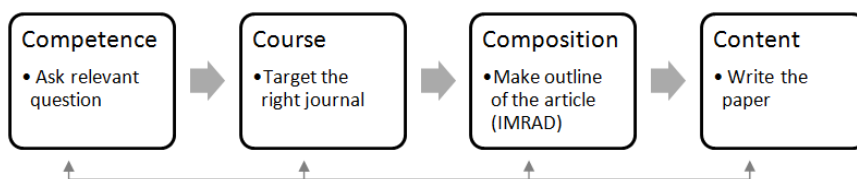


Figure 1: The 4 C’s of scientific writing and publication, (Source: © Mirjana Pejić Bach)

It is important to stress that the proposed writing framework is not in any way typical exclusively to the journals indexed in Web of Science©. However, the proposed framework is suitable path to the publication of journals indexed in Web of Science© since most of them impose very high publications standards regarding both content relevancy and writing skills of the author.

2.1. Competence: Relevant research question

Asking relevant scientific question that will be a basis for a further development of goals and the hypothesis of the paper is the most important step in scientific writing (Moffin, R., 2011). There are different paths towards asking relevant questions. Author can read papers on similar topics from quality journals, discuss the topic of your paper with her mentor or colleagues, and present her paper at the conference. Research question has to be matched with the targeted journal and with the future readers in mind. During the writing process relevant research question will be often reformulated.

Choosing relevant research question is neither subject nor journal specific. However, journals that are locally oriented are more likely to publish a paper that discussed already familiar topic only in new geographic or industry settings (e.g. Entrepreneurial intentions in Croatian SMEs). On the other hand, A+ journal would publish only papers that are raising novel questions using cutting-edge statistical and mathematical techniques.

How could author test whether her or his research question is relevant enough to be published in a particular journal? The answer to the question depends on the editor's decision. The author could presume the answer to such a question by carefully reading articles from the past journal issues including last few years, and comparing their research questions with the author's one.

2.2. Course: Targeting the right journal

It is recommended to select possible 2 to 3 journals for publication taking into account that the paper matches the topic of the journal, experience of other familiar authors that already published in the journal, mission statements of the journals, members of the editorial board, and journal quality. In order to minimize rejections, authors should try to match the quality of the paper with the quality of the journal.

Spotlight of this paper is journals indexed in Web of Science. In addition, this paper has focused on journals that are: (1) published locally in some of the EE countries and cover general topics using sample data from regional countries, and (2) published by the established publisher and cover narrow topic like transitional or post-communist economies. In order to track those journals, following steps were conducted. First, journals were tracked by the Journal Citation Report (JCR) and narrowing the search to the field of economics. Second, journals from EE countries were selected. Third, Web of Science was searched using key words "Eastern Europe" and narrowing the field of economics, business and management.

Table 1 presents selected ISI indexed journals that focus on EE countries, with information on country published, its impact factor in 2011, number of issues published per year, the number of papers published in 2010, and % of foreign authors. Most of the journals publish papers in English or are multilingual. Only one journal is published in Russian (Actual Problems of Economics).

Table 1

Selected ISI indexed journals that focus on EE countries

Name of the journal	Country	Impact factor / 2011	Issues/ Year	No of papers in 2010	% of foreign authors in 2010
Acta Oeconomica	Hungary	0.375	4	16	37,14%
Actual Problems of Economics	Ukraine	0.039	12	474	54,36%
Amfiteatru Economic	Romania	0.757	2	51	17,24%
Argumenta Oeconomica	Poland	0.118	2	18	45,56%
Baltic Journal of Management	Latvia	0.188	2	8	91,67%
Communist And Post-Communist Studies	England	0.557	4	33	100%
Czech Journal of Economics and Finance	Czech Republic	0.346	6	25	66,67%
E & M Ekonomie a Management	Czech Republic	0.341	4	46	32,26%
Eastern European Economics	United States	0.333	6	27	78,12%
Economic Computation and Economic Cybernetics Studies and Research	Romania	0.303	4	59	33,90%
Economic Research	Croatia	0.193	4	51	24,65%
Economics of Transition	England	0.679	4	27	92,59%
Ekonomicky Casopis	Slovakia	0.274	10	55	43,37%
Ekonomista	Poland	0.141	5	37	10,00%
Emerging Markets Finance And Trade	United States	0.953	6	53	90,00%
Emerging Markets Review	Netherlands	1.067	4	20	99,60%
International Journal of Strategic Property Management	Lithuania	1.620	4	27	80,00%
Inzinerine-Ekonomika	Lithuania	1468	5	55	30,00%
Journal of Business Economics and Management	Lithuania	2388	4	34	58,82%
Panoeconomicus	Serbia	0.396	4	26	63,33%
Politicka Ekonomie	Czech Republic	0.380	6	42	16,39%
Post-Communist Economies	England	0.459	4	31	100%
Prague Economic Papers	Czech Republic	0.256	4	21	41,67%
Proceedings of Rijeka Faculty of Economics	Croatia	0.400	2	11	74,25%
Romanian Journal of Economic Forecasting	Romania	0.246	4	72	36,51%
Technological and Economic Development of Economy	Lithuania	3235	4	46	40,43%
Transformations in Business and Economics	Lithuania	0.991	3	57	90,00%
Transylvanian Review of Administrative Sciences	Romania	0.284	3	35	34,21%

Source: Authors' research

However, it is important to stress that also other journals indexed in Web of Science also publish research results of the authors from EE countries even with regional topics. Practical approach to targeting a suitable journal in Web of Science is following. The author should try to search the Web of Science database with the tentative title of the emerging article under the Topic field. After careful examination of the results, it would be possible to track possible journals that publish papers on similar topics, and thus broaden the list of possible journals for publication.

The better approach is also to track Call for special issues. Such lists are regularly published on the websites of the journals, but also of the publishers. One good source is Emerald Call for Papers available at: <http://www.emeraldinsight.com/authors/writing/calls.htm>

One important obstacle for publication of authors from EE countries in Web of Science indexed journals is that they do not have the access to the Web of Science database. However, readers without the access to JCR can check the status of the journal by using Thomson Reuters Master Journal List available at <http://ip-science.thomsonreuters.com/mjl/>.

2.3. Composition: IMRAD composition

Different types of scientific papers are published in scientific journals: case studies, survey reports, theoretical papers, and review papers (Whiteside, 2004). IMRAD composition of the paper (Introduction-Methods-Results-Discussion) could be recommended as a good path regardless of the paper type (Day, 1989) although other compositions like DSB (Definition, Solution and Benefits) are also possible (Marher, 2000). IMRAD framework is based on the four parts of the paper: (1) Introduction (What problem was studied?), (2) Methods (How was the problem studied?), (3) Results (What are the results?), And (4) Discussion (What do the findings mean?), but it does not imply that sections of the paper should have those exact names. Whiteside (2004) considers that “a paper is an organized description of hypotheses, data and conclusions, intend to instruct the reader” and emphasize the importance of using an outline in writing papers. Outline, as a written plan for the organization of the paper, is developed before writing the paper, and it describes the content of the paper usually in the bulleted list before the paper is actually written.

IMRAD composition of the paper is neither obligatory nor typical only for journals indexed in Web of Science. However, it is one of the most common compositions of the scientific papers on such articles. The author may wonder how to choose such a composition of the paper that would be more likely to be published in high-standard journal, such as are those indexed in Web of Science?

Practical approach is to find a good example of paper on a similar topic, and examine how the paper is organized. The next step would be to make an outline for the content of the paper in the form of a bullet list of the future paragraphs and even sentences. Only after that step is finalized, authors should start to write, although she shall probably change this outline in the process of writing. Although experienced authors sometimes write paragraphs on paper and

combine them later in the paper, novice writer will probably not yield the best result of that approach.

The following sections will provide rather detail advice to novice writers on what constitutes paper that follows IMRAD composition.

Title of the paper, abstracts, keywords

Title of the paper should be understandable and informative, and it should not be too long. Some of the journals even prescribe the maximum number of words in the title. Practical approach is to examine titles of the papers already published in targeted journals. Abstract could consist of sentences explaining background, purpose, results, methods and conclusion of the paper. It is important to carefully select keywords because they are used in database search, and their good choice increases probability that other authors will read and hopefully cite the paper.

Introduction

The purpose of the introductory section of the paper is to inform the readers why the scientific research has been conducted. By reading papers in quality journals one can easily notice that most of the introduction section consists basically on four paragraphs. First paragraph usually describes the current knowledge on the topic being researched. Second paragraph sets direction toward the purpose of the paper by revealing what is important and not yet examined. Third paragraph outlines the purpose of the paper and it states briefly methodology that has been utilized in the paper. Fourth paragraph usually describes other sections of the paper. Introduction paper should in fact convince the editor and the reader that the paper is worth publishing and reading.

Authors often decide to add one more section, usually named Literature review or Theoretical background in which they elaborate the current knowledge on the topic of the paper. Under this section authors often develop research hypothesis based on the previously published research and give theoretical reasons for them. If research hypotheses cannot be supported within the adequate theoretical framework, they can be reformulated into research propositions, or research goals.

Methods

A methods section of the paper describes the process author carried on in order to finish the research. It depends on the research methods applied in the paper, and main two groups are quantitative and qualitative, but they also can be combined together (Creswell, 2008). In practice a wide variety of examples exist. Methods section is missing if the paper is completely theoretical in its nature. Practical approach would be to find several papers with methods similar to the one used in the paper, and then read methods sections very carefully in order to find inspiration and examples of good text.

Results

A result section of the paper should just present the facts revealed by the research, and not their interpretation. Data can be presented in tables, figures or graphs, but the textual part of the results should not describe what is obvious from them. The content of this section strongly depends on the methods being used.

Again, it is useful to find several papers with methods similar to the one used in the paper, and then examine the content of the results sections in order to find the best practice.

Discussion

Discussion part of the paper is usually one that is hardest to write, and its deficiencies are the most often reason for the papers being rejected. The author should try to organize this part of the paper in order to summarize the findings of the research, compare the results being expected from previous research or experience, propose practical implications of the results, explain key limitations of the research, and suggest paths for the future research.

Advice for the novice author would be to combine discussion section on the following paragraphs. First few paragraphs should summarize the findings of the paper and then compare them with the results of the previous researches. It is often explained in this part of the paper if hypothesis have been rejected or accepted and why. If research goals have been used in the paper, this part of the paper could be also organized around explaining if they have been filled or not. Next paragraphs should explain practical and managerial implications of the paper results. Last two paragraphs should be devoted to the limitations that the reader has to take into account while validating the research results, and to the directions that the paper sets for the future research.

2.4. Content: Writing skills

Writing skills are attained in a number of ways (e.g. experiential learning, working in teams with knowledgeable co-authors, getting reviews from peers, and writing reviews). Reading high-quality scientific papers published in targeted journals indexed in Web of Science are of the highest importance. Again, it is useful to find several papers on the similar topics and read them carefully.

It is of the greatest importance for the inexperienced authors to examine sentence by sentence of every part of the paper in order to understand the composition of the paper completely. In best papers, every word is written for a good reason, and there is no redundant or too little information.

Writing a high quality scientific paper is a result of author's capability to appraise and summarize previously published research, and there are several sources that offer relevant instruction on the process and its purpose with examples for practice (Indiana University, 2005). Plagiarism occurrence increased after the invention of the World Wide Web, and easy copy-pasting with only a few clicks of the mouse (DeVoss, 2002). Often author changes few words and their order, but it is considered plagiarism even he/she cite the source since nothing new is in rewriting other author's words. Plagiarism is considered as a serious unethical act, but there are different levels of plagiarism. Number of journals applies software for identification of plagiarized text (Ledwith, 2008), and impose severe actions against authors that have been found to submit a paper with plagiarized text.

Writing is a very slow process that consists of several phases: prewriting (making notes, describing ideas, drawing figures), writing (writing a paragraph by

paragraph skipping from sections), revision (read the written text and correct the errors and illogicalities), and editing (checking accuracy and correcting errors), and proofreading (read the paper again in order to check for previously checked errors). Write with your readers in mind considering their level of knowledge of the field and motivation for reading, and always focus on the purpose of the paper (Stojmenović et al., 2012). After finishing the paper it is best to leave it for some time and re-read it again. It will give a distance to the author that will allow her or him to assess the quality of the paper more objectively.

Advice for increasing writing skills could be summarized as follows: (1) read a number of papers and learn to recognize good writing, (2) plan future content of the paper carefully, (3) avoid plagiarism in any case and practice skills to summarize and critically evaluate others' work, (4) write with the future reader in mind, and (5) revise, edit and proofread the paper in order to avoid mistakes and illogicalities.

3. SENDING THE PAPER TO THE JOURNAL

Scientific journals usually publish instructions for authors. The paper should be sent to the journal following closely those instructions. It is also a custom to write a kind letter to the editor with the title of the paper and name of co-authors (if any), that clearly states that the paper is not sent for publication to any other journal. Letter to the journal editor can also contain a brief explanation why the paper is suitable for publication in a particular journal, and what is its scientific contribution.

When the paper is sent to the journal, a decision on its possible publication is given. At the first step, the editor of the paper decides on whether the paper should be sent to the review. Most of the papers are desk rejected, which occurs when editors read the paper and make a decision to refuse the paper without sending it to the reviewer. Otherwise, limited number of capable reviewers would be burdened even more. Linton (2012) lists 7 groups of reasons why in most of the case papers get rejected by the editor: self-identification concerns (e.g. high number of self-citations), reference related (e.g. cite websites, papers in foreign languages, formatting style, partial references), overall style (e.g. using cliché expressions, using undefined acronyms, spelling errors, not following IMRAD structure), figure (e.g. do not label figures or use too much of them), the objectives of the paper (e.g. do not define the purpose of the paper), method (e.g. biased sample, inadequate methods), contribution (e.g. confirm/deny something that is considered obvious or nobody is interested in). Even if the paper gets rejected by the editor, in most of the cases, some advice on how to improve the paper will be given.

If the editor of the journal decides to send the paper to the reviews, peer-review system is applied, which could be double-blind, single-blind or open. Possible decisions of the reviewer are usually: accept the paper as it is (rarely), accept the paper with minor corrections (sometimes), accept the paper with major corrections (in most of the cases), and reject the paper. When the reviewer asks for major changes, authors should not give up on improving the paper. The

Author should try to follow the reviewers' instructions as close as possible. Good review that proposes a number of changes is an excellent leverage toward improving authors' scientific skills. Kind letter to the reviewers with explanations of changes in the paper according to their proposals are good steps to better understanding, and increase the probability of final decision on accepting the paper.

4. CONCLUSION

The message of the paper is that the quality of a scientific paper is a result of the process that consists of reading, researching and writing. All of the three activities are equally important. A scientist has to be able to evaluate the quality of others' work and use it as a role model for its own research with the goal to become the same for future generations. Number of books present principles of scientific research (e.g. Carey, 2011) and has to be studied and practiced carefully and with diligence. Finally, scientific writing is a discipline that has its rules developed from the 17th century, and it takes a lot of practice and hard work to master it.

The question of the paper was how to write and publish a paper in scientific journal with the closer outlook to Web of Science indexed journals. Nevertheless, we would like to conclude the paper with another question: Why publish in ISI journals with impact factor? Some authors consider that basing evaluation of the scientific work only on numbers (e.g. impact factors or number of citations) is considered a reductionism that is embarrassing for science (Wilcox, 2008). Even on the Thomson Reuters' web site there is a warranty on careful usage of impact factor as a sole measure of scientific productivity. Although debate is going on whether bibliometric measures, like impact factor and h-index are sufficient or not, current practice in the scientific community is focused mainly on ISI journals and usage on bibliometric measures as a basis for evaluations of the scientific research quality. Since publication by means of new routes like conference proceedings, open journals and comparable databases (like Scopus) is increasing (Larsen et al., 2010), that practice is likely to change in near future. However, it is likely that rigour in scientific reserach and wriiting will become even more important in the future in order to increase quality and reliability of scientific contributions.

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ACCOUNTING POLICY OF INTERNALLY GENERATED INTANGIBLE ASSETS: CURRENT CASE AND FUTURE DIRECTIONS

JEL classification: M 41

Abstract

In modern business particular attention is paid to the use of intangible assets; the companies purchase them from other persons and also generate themselves: they launch and subsequently produce new or improved products and services (research and development) and ensure the protection of intellectually intensive products (patents, trademarks, computer software etc.). The aim of the research is to perform the comparative analysis of accounting policy adopted internationally and in Latvia regarding the internally generated intangible assets and to develop suggestions for its improvement. Having studied the documents regulating the accounting and specialized literature, the authors draw a conclusion that the most significant differences could be observed in the USA practice. At the end of research, the authors have developed suggestions for the improvement of internally generated intangible assets accounting policy.

Keywords: intangible assets, internally generated intangible assets, accounting policy

1. INTRODUCTION

Under the modern conditions, when the economic development of countries is more and more influenced by knowledge-based, innovative entrepreneurship, the intangible assets have become the strategic resource of companies. The companies pay attention to the purchase of these specific assets, as well as generate themselves: they implement the plans for the development and improvement of new products and services (research and development) and ensure the protection of intellectually capacious products created themselves (patents, trademarks, software etc.). However, having studied the documents regulating the accounting and specialized literature, the authors established that there is no unambiguous position in the accounting theory regarding the internally generated intangible assets accounting policy. The aim of the research is to perform the comparative analysis of accounting policy adopted internationally and in Latvia regarding the internally generated intangible assets and to develop suggestions for its improvement. The research methodology is based on the comparative analysis of the requirements set in the European Union Directives regulating accounting, the International Accounting Standards and the documents regulating accounting in the UK, the US and Latvia. The paper covers also the analysis of authors' conclusions, publications in the periodicals and other bibliographic sources.

2. CURRENT ACCOUNTING POLICY

In accountancy, the internally generated intangible items – research and development costs, other internally developed identifiable intangible items, goodwill – theoretically can be implemented different accounting policy:

- 1) capitalized among the intangible assets, or
- 2) immediately included into the expenses of an enterprise.

The inclusion of internally generated intangible items into the intangible assets could be justified only if they meet the criteria set for the recognition of assets and comply with additional conditions regulating the recognition of intangible items among the intangible assets. Otherwise these intangible items shall be included into the expenses of an enterprise. The comparison of assets recognition criteria provided by the documents of International Accounting Standards Board, the United Kingdom and Latvia regulating accounting is presented by the authors in Table 1.

As a result of comparative analysis, the authors draw a conclusion that the asset recognition criteria, provided by the sources under research, are identical, the differences could be found only in the formulation. Consequently, it is provided by IASB “The Conceptual Framework for Financial Reporting”, para. 4.38 (IASB, 2010), the United Kingdom FRS No.5 “Reporting the Substance of Transactions”, para. 20 (ASB, 1994), Latvia Accounting Standard No.1 “The

Basic Statements on the Preparation of Financial Report”, para. 4.1. (Latvia Accounting Board, 2004) that an asset shall be recognized, if both conditions come true – the probable receipt of economic benefit and the reliability criterion of value.

Table 1

The Criteria for the Recognition of Economic Transaction Item as an Asset

IASB	UK GAAP	Latvia GAAP
It is probable that any future economic benefit associated with the item will flow to or from the entity	There is sufficient evidence of the existence of the item (including, where appropriate, evidence that a future inflow or outflow of benefit will occur)	The assets are the resources of an enterprise acquired as a result of past events and that in future the enterprise would expect economic profitability
The item has a cost or value that can be measured with reliability ¹	The item can be measured at a monetary amount with sufficient reliability	The item shall have value that could be credibly evaluated ²

Notes: ¹ Information is reliable when it is complete, neutral and free from errors.

² The criteria set in Latvia for the recognition of assets are provided in the definition of assets.

Source: IASB. The Conceptual Framework for Financial Reporting; ASB. FRS 5; LAB. LGS 1.

It is necessary to provide more detailed explanation for the words “probable” and “reliability”, used in the formulations of asset recognition criteria. According to A. Melville, the use of the word “probable” in these recognition criteria is an acceptance of the fact that the future is uncertain. If recognition required certainty, it would be impossible to draw up meaningful financial statements at all. For example, no-one can say for sure whether or not an amount owed to an entity will ever be received. However, if it is probable (on the basis of the evidence available) that the amount will be received in due course, then recognition of this amount as an asset is justifiable. The use of the word “reliability” in the recognition criteria does not mean that costs or values must be capable of precise measurement before they can be recognized (Melville, 2008, p.25).

However, not all specialists agree to now generally accepted asset recognition criteria. There exists a probability that the asset recognition criteria will change, because “reliability” is being replaced by “faithful representation”

and “verifiability”. It is expected that the measurement of an asset will need to have faithful representation of the economic phenomena, and that the measurement must be verifiable (Alfredson, K. and other authors, 2009, p. 24). At the moment, while this article was prepared, the asset recognition criteria were not changed.

As it was mentioned above, in order the internally generated intangible items could be recognized as assets, they have to comply not only with the asset recognition criteria, but also with the additional conditions the authors will analyze later in this article.

Having studied the provisions of the EU 4th Council Directive, IAS No.38 and the provisions of documents regulating accounting in the United Kingdom, the USA, and Latvia, the authors established that there has been no unambiguous accounting policy adopted in relation to internally generated intangible items (See Table 2).

Table 2

The Comparative Analysis of Accounting Policies in Relation to Internally Generated Intangible Items

Intangible items	EU 4 th Council Directive	IAS No.38	UK GAAP	US GAAP	Latvia GAAP
Research costs	assets, but priority is given to national legislation	expense	expense	expense	expense
Development costs	assets, but priority is given to national legislation	assets, if specified criteria are met	if specified criteria are met, <u>may choose</u> : 1) assets, or 2) expense	expense ¹	assets, if specified criteria are met
Other internally developed identifiable intangible items	assets, but priority is given to national legislation	assets, if the respective conditions come true ²	assets, if the respective conditions come true ³	expense	assets, if the respective conditions come true
Goodwill	expense	expense	expense	expense	expense

Notes: ¹ with the exception – computer software developed for sale

² with the exception – brands, mastheads, publishing titles, customer lists and items similar in substance

³ with the exception – brands and publishing titles

Source: EU 4th CD; IASB. IAS 38; ASB. FRS 10, SSAP 13; FASB. SFAS 142, SFAS 86, ASC 350; Latvia. Annual Accounts Law.

The research shows that internally generated goodwill is accounted for in a consistent manner, i.e., its capitalisation is forbidden. That can be explained by the fact that it is impossible to estimate the value of this element reliably or to control it. However, other internally generated intangible items are subject to a different accountancy policy.

Research costs and development costs are internally created intangible items that are closely linked to one another. Research phase is characterised with a high level of risk, as it is impossible to predict the likelihood of obtaining a positive outcome to be developed for practical application. Development phase, in turn, is founded on the results of research phase, and it serves as an assurance that the enterprise will be able to obtain a product ready for production or practical application. It is important to differentiate between the two, because, as we can see in Table 2, the internationally dominant accountancy policy depends on the action performed.

In the sources studied the prevailing costs accounting method of research stage is their recognition as expense when incurred. Such procedure complies also with the provisions of the EU 4th Council Directive that, in fact, delegate the authority to choose the accounting policy in relation to both research costs and development costs to the Member States. The immediate writing off policy regarding research costs complies with the principle of prudence, because, as it was mentioned above, the research activities are related to a high degree of uncertainty – it is not clear, whether there would be the positive outcome that could be utilized for further developmental activities, and thus it is not clear, whether this action would provide companies with the flow of economic benefit in future.

In relation to the development costs accounting policy it is possible to observe different accounting methods. Mostly, irrespective of the type of intangible item to be developed, it is allowed to capitalised the costs, if the asset recognition criteria and the additional specific criteria come true; the exception is US GAAP. In Table 3 the authors present the comparative analysis of development costs recognition criteria as provided by IAS No.38, the documents of the United Kingdom and Latvia regulating accounting.

An analysis of the criteria found in the IAS No.38 “Intangible Assets”, para. 57 (IASB, 2001) and “Annual Accounts Law” of Latvia, para. 18 (Latvia, 1992) for the capitalisation of development costs shows that both documents, according to their essence, stipulate similar capitalisation criteria, the differences could be found only in the formulation.

Having compared the development costs capitalisation criteria provided by IAS No.38 “Intangible Assets”, para. 57 (IASB, 2001) and the UK SSAP No.13 “Accounting for Research and Development” para. 9-14 (ASB, 1989), the

authors established that both documents stipulate three similar capitalisation criteria, but the rest are different.

Table 3

The Comparison of Development Costs Capitalisation Criteria

IAS No.38	UK GAAP	Latvia GAAP
1. the <u>technical feasibility</u> of <u>completing the intangible asset</u> so that it will be available for use or sale	1. there is a clearly defined project	1. the company intends to <u>finish an asset</u> object in order to utilise it for the own needs of the company or to sell it
2. its intention to <u>complete the intangible asset</u> and use or sell it	2. <u>the related expenditure is separately identifiable</u>	2. <u>it is possible</u> for the company to <u>finish such asset</u> object and <u>it has access</u> to the required technical, financial and other <u>resources</u>
3. its <u>ability to use or sell</u> the intangible asset	3. the outcome of such a project would then need to be examined its <u>technical feasibility</u> and its <u>ultimate commercial viability</u>	3. the company is able to transparently show what kind of <u>economic benefits</u> from the utilisation or sale of such asset object will be received <u>in the future</u>
4. how the intangible asset will <u>generate probable future economic benefits</u>	4. the aggregate of the deferred development costs, any further development costs, and related production, selling and administration costs is reasonably expected to be exceeded by related future sales or other revenues	4. the company is able <u>to believably value the amount of costs</u> of the such asset object
5. the availability of <u>adequate</u> technical, financial and other <u>resources</u> to complete the development and to use or sell the intangible asset	5. <u>adequate resources exist</u> , or are reasonably expected to be available, to enable the project <u>to be completed</u>	
6. its ability <u>to measure reliably the expenditure</u> attributable to the intangible asset during its development		

Source: IASB. IAS 38; ASB. SSAP 13; Latvia. Annual Accounts Law.

The UK criterion, marked 1 in the table, states that there must be a clearly defined project, and criterion 4 provide for the amount of admissible development costs capitalisation. The IAS, in contrast, does not include such criteria, but instead stresses that the company shall have the intention to complete the intangible asset and the ability to use or sell it. Having compared the various criteria for capitalising the development costs, the authors believe that, in relation to this, the ones contained in the IAS are more precise. This is because the criteria – an intention to complete the asset and also to use it – provide a definite guarantee that the respective intangible assets will be carried to the point where it culminates in practical application within the enterprise or can be sold, while a single criterion that the project must be clearly defined may result in a situation that there is no intention to complete the intangible asset, as a result of which the intangible asset will not be prepared for its planned utilisation and generated for the economic benefit in future. It is necessary to point out one more difference – IAS provide that, if the above mentioned development costs capitalisation criteria come true, the enterprises shall recognise them as intangible assets. Whereas in the UK the capitalisation of development costs is not determined as mandatory. If the respective criteria come true, the enterprises have a choice: to capitalise them or to include them into expense when incurred.

Having studied the development costs capitalisation criteria on the whole, the authors draw a conclusion that these conditions comprise the internationally adopted criteria for the recognition of economic transaction item as an asset (See Table 1). And, since the use or sale of intangible assets generated in such a way is related to the respective degree of uncertainty, then, in order to limit the risk, there have been envisaged additional conditions that guarantee the completion of development, the application of its results and their commercial usefulness. It should be pointed out that in practice it is mostly difficult to meet all criteria for the recognition of intangible assets obtained as a result of developmental stage. In some cases, the development costs of intangible item, generated at the enterprise, may be credibly evaluated. For example, on the basis of the costs accounting system of an enterprise it is often possible to evaluate the personnel costs and other costs incurred to the enterprise, while generating the intangible items. But in most of the cases the development costs of generated intangible item cannot be evaluated a high reliability degree. For example, the costs of such activities, as a result of which it is planned to generate or maintain the trademark of a specific product, may include the factors that cannot be determined in terms of material values – such factors include the improvement of personnel's general mood and maintaining or improvement of company's image.

In the USA there has been accepted a different development costs accounting policy – in conformity with SFAS 142 “Goodwill and Other Intangible Assets” 10. para. (FASB, 2001); thus these costs shall be immediately recognized as an expense when incurred. The exception is the internally developed computer software, which is envisaged for its further external realisation. The accounting of such computer software is regulated by a special

standard — SFAS No.86 “Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed”. The standard provides that all costs related to the development of such software shall be recognized as the expense of current period — like other research and development costs. However, since the moment, when the company’s management considers the technological feasibility of software development, the software costs are capitalised as an intangible asset. The technological feasibility of software is characterised by a detailed program design of this object or an existing working model. Such capitalised internally developed computer software is gradually amortized within the process of its sale in conformity with the accruals basis, namely, in proportion to the revenue gained from the realisation of software.

The authors believe that it is admissible to perform the accounting of the costs of software envisaged for the further external realisation like any other research and development costs, thus the research costs of such software shall be included into the expense of accounting period, but its development costs, if the respective criteria come true, shall be recognized as an intangible asset. This shall be justified by the fact that there are no differences on principle between the method applied for the accounting of software costs and any other process, object, which is developed by the enterprise for the business goals. Such position does not contradict also with the methods of research and development costs accounting provided by IAS No.38 “Intangible Assets”.

Having studied the specialized economic literature, the authors draw a conclusion that the most detailed criteria for the capitalisation of development costs are provided by IAS No.38 “Intangible Assets”. The applicability of these criteria in practice has been studied by several specialists: B. Lev, J.Baetge, I. Keitz, S.Dawo, L.Hepers, K.Kuting, S. Schreiber a.o. The conclusions drawn by these specialists have been used for research purposes by T. Mindermann, who at the 30th Annual Congress of the European Accounting Association in 2007 presented the paper on the problem, whether IAS No.38 “Intangible Assets” really provide useful information for the capitalisation of internally generated intangible assets.

T.Mindermann has emphasised that the first recognition criterion of technical feasibility is barely illustrated in the specifications of IAS No.38 “Intangible Assets” so that the enterprise has the opportunity to base decisions on whether or not a project is technically feasible in its subjective point of view. Because of its similarity the definition of technical feasibility generally follows the US GAAP rules of accounting for the costs of software. Accordingly, a software program has established technical feasibility when a detailed program design or working model has been completed. However, the following of SFAS 86 “Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed” may substantiate the technical feasibility for software but it is not adequate for other intangible items. Furthermore, the recognition criterion of technical feasibility is only sufficient for traditional product or process development. For other intangible items (like brands) the question of technical

feasibility is negligible. To meet the second criterion for recognition, the company has to intend completing the intangible asset for internal usage or external selling. This criterion results from application of the framework and IAS 1. The intention of completion is sufficiently proven if development is continued until the point of preparation of the annual financial statement. This is based on the argument that a businessman would never continue development if he did not intend to finish it. The third criterion for capitalisation recognition is the ability to internal use or external sale which results from the basic economic principles. These economic principles imply that companies would not develop an intangible asset unless it was internally used or externally sold. This criterion is met, if legal or effective measure lead to presumption that the potential benefit is accessible. The fourth criterion requires a verification, in which terms the asset is likely to yield benefits. Following IAS No.38 "Intangible Assets" para. 60, this proof has to be documented according to IAS 36. In case of selling intangible assets or products which were produced with the aid of intangible assets, the existence of a related market has to be based on market research. In case of internal use the intangible assets potential benefit depends on the technical and economic consistence and is therefore mainly determined by the criterion of feasibility. In case of an internal use future economic benefits have to be based on the estimation of the net present value of payment flows. The criterion of possessing adequate technical, financial and other resources for completion and the subsequent utilization can be met – in compliance to IAS 38 para. 61 – by presenting a business plan showing the needed resources and the company's ability to mobilize these resources. Regarding the availability of debt capital a letter of intent from the lender is accepted as a qualified proof. The last criterion for capitalisation recognition requires a reliable valuation of all expenditures connected to the developed intangible asset. This is when an appropriately equipped costing system is able to reliably determine the cost of production (Mindermann, 2007).

The research performed by T.Minderman shows that the specialist mostly criticize the difficulty to apply in practice the criterion for the capitalisation of development costs - the technical feasibility of completing the intangible asset so that it will be available for use or sale. This criterion is provided by IAS No 38 (criterion 1), the UK GAAP (criterion 3), and it is related to all types of internally generated intangible items. Whereas in the US GAAP it is applied only to internally developed computer software, envisaged for its further external realisation. Of course, in relation to such computer software it is admissible that its technical feasibility is proved by a detailed program design or a working model. However, the problem is – how to prove the technical feasibility of other internally generated intangible items. The authors agree to the specialists' point of view that in the case of other internally generated intangible items it might be difficult or even impossible to prove the technical feasibility by means of a detailed program design or a working model. This shall be justified by the fact that each of them is unique and mutually irreplaceable, for example, copyrights. The authors believe that the technical substantiation is not the main

capitalisation feature of these items; most important is to have a conclusive proof on the feasibility of their completion and use, as a result of which the company will receive the flow of economic benefits in future.

Other internally developed identifiable intangible items such as internally generated patents, trademarks and similar rights and assets are very specific intangible items, their recognition and recognition and accounting is difficult due to the fact that generated future economic benefits to the company are uncertain. It is also showed by different accpunting policy summarised in Table 2.

As we can see in Table 2, IAS and UK GAAP admit, with the exceptions, the capitalisation of other internally developed identifiable intangible items, if the respective conditions come true. In conformity with the provisions of IAS No.38 “Intangible Assets”, studied in this article earlier, the standards permits the recognition of internally generated identifiable intangible items as assets if the following comes true: the criteria for the asset recognition, the definition of intangible assets and the specific criteria, as a result of which there are capitalised the internally generated intangible assets that arise from the development phase of a project. However, even if all above mentioned conditions come true, the standards (para. 63 and 64) prohibits for the capitalisation of internally generated brands, mastheads, publishing titles, customer lists and items similar in substance. The substantiation for such policy is the fact that expenditure on such items cannot be distinguished from the cost of developing the business as a whole (IASB, 2001). In the UK GAAP, in conformity with FRS 10 “Goodwill and Intangible Assets” para. 12 and 14 (ASB, 1998), it is provided that internally developed intangible items may be capitalised only if that asset has a readily ascertainable market value. It is also pointed out that it is not possible to determine a market value for the unique intangible items such as brands and publishing titles, therefore they are not recognised as intangible assets. This means that only a limited range of internally developed identifiable intangible items can be recognised as intangible assets. It is considered that internally developed patents, copyrights, trademarks, franchises, and other assets will be recognised at the cost of creation, exclusive of costs which would be analogous to research (Epstein, B.J., Jermakowicz E.K., 2010, p. 369).

As it was mentioned above about the accounting policy of internally generated intangible items accepted in the USA, in this country it is forbidden to capitalise research and development costs (except for the computer software developed for sale). Thus SFAS No.142 “Goodwill and Other Intangible Assets” para. 10 provides that the costs of internally developing, maintaining, or restoring intangible assets (including goodwill) that are not specifically identifiable, that have indeterminate lives, or that are inherent in a continuing business or non-profit activity and related to an entity as a whole, shall be recognised as an expense when incurred (FASB, 2001).

The EU 4th Council Directive provides that in the balance item of intangible assets “Concessions, Patents, Licences, Trademarks and Similar Rights and Assets” may be disclosed these rights and assets created by the undertaking itself, but at the same time the priority in this aspect is given to the national law of Member States.

In Latvian accountancy there are determined special restrictions on the capitalisation of any separate special types of internally generated identifiable intangible items. It should be pointed out that on the whole the accounting policy in relation to these specific items accepted in Latvia is similar to the procedure provided by IAS No.38 “Intangible Assets” (See Tables 2 and 3) and to the provisions of the EU 4th Council Directive.

3. FUTURE ISSUES

As it was established in the 2nd part of article, only an insignificant part of internally generated identifiable intangible assets may be capitalised and disclosed among the company assets (See Table 2). Thus the users of financial statements do not receive adequate and relevant information on the resources at company’s disposal. In order to evaluate the possible ways how to change the situation, the authors will describe in brief the views expressed in the literature on the reinstatement of previously expensed costs associated with the development of an internally generated intangible items; the authors will study the determination of the value of internally generated patents and trademarks and analyze the validity of the capitalisation of the development costs of software developed internally for in-house use.

The relevance of information disclosed in the financial statement on the internally generated intangible items is influence by the fact that IAS No.38 “Intangible Assets” para. 71 prohibits the recapitalisation of the previously expensed sums of intangible items. In the specialized literature the prohibition provided by the standards has been criticised by several specialists. They suggest reinstatement of previously expensed costs associated with the development of internally generated intangible items once that meets the asset recognition criteria, thus there would be improved the relevance of financial statements (Lev and Zarowin, 1999; Hoegh-Krøhn and Knivsfå, 2000; Mindemann, 2007). Hoegh-Krøhn and Knivsfå suggest the reinstatement of previously expensed costs should be only allowed if a potential intangible asset was already previously disclosed in the financial statement notes. This would disallow companies to arbitrarily capitalize previously expensed costs.

As it was established within the research, IAS No.38 “Intangible Assets” permits recognition of internally generated intangible assets to the extent the expenditures can be related to the development stage of research and development program. Thus, internally developed patents, trademarks, will be recognized at the cost of creation, exclusive of costs which would

be analogous to research (Epstein, B.J., Jermakowicz E.K., 2010, p. 369). However, in the studied specialized literature there was not included, how to determine the costs of these internally generated patents and trademarks. The authors suggest that the costs of internally generated patents and trademarks should be based on the main stages of their development and registration procedure, which are represented graphically in Figures 1 and 2.

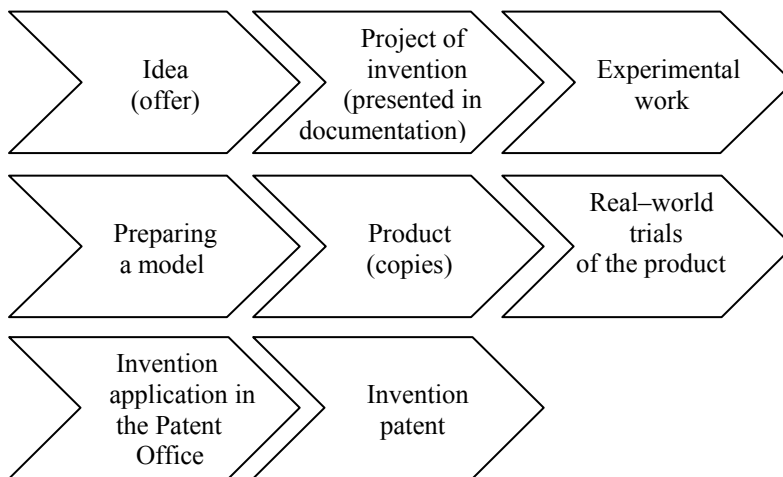


Figure 1 Main Stages of the Development and Registration of Internally Generated Invention Patent

Notes: The authors assume that the registration of patents in other countries is similar to this process in Latvia

Source: authors' own.

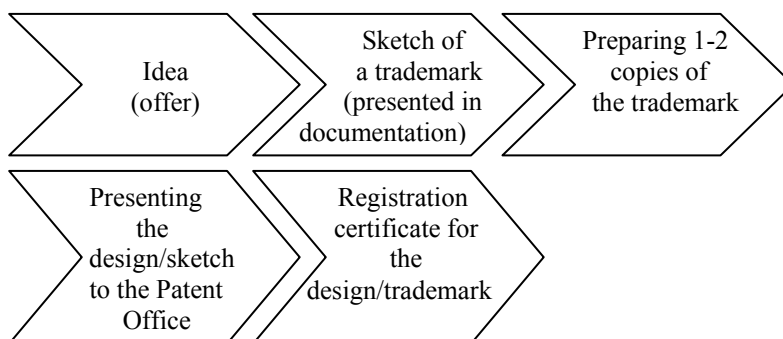


Figure 2 Main Stages of the Development and Registration of Internally Generated Design/Trademark

Notes: The authors assume that the registration of design/trademarks in other countries is similar to this process in Latvia

Source: authors' own.

According to the authors' point of view, on the basis of scheme showed in Figure 1, the value of internally generated invention patent is comprised of the following elements:

- wages of staff employed in the development of an invention patent and the employer's social contributions (the development and implementation of the project of invention, preparing a model and production of some ready products, un the product trials);
- the value of fixed assets acquired for the development of a particular patent, the depreciation costs of fixed assets to be used for the development (performing of experimental work, preparing a model and production of some ready products – experimental stands, measuring equipment, instruments, the respective elements etc.);
- the costs of material values used as a result of development (performing of experimental work, preparing a model and production of some ready products – different types of raw materials);
- the costs of work performed and services provided by other legal and physical entities (the development of the project of invention and experimental work – the costs of consultation services; the submission of an invention to the Patent Office – the costs of legal processing of documentation etc.);
- company's general costs that could be related to the execution of particular work.

The research shows that the development of designs/trademarks is similar to that of inventions. The main difference is that the stages of development of trademarks and most designs do not include the testing of finalised product sketches, production of individual models or the trials of trademarks and designs in their intended environment. This can be explained by the fact that the projects of these objects are mostly "paperwork", which results in the drafting of 1 or 2 copies to be presented to the Patent Office along with other relevant documents. Since it is impossible to observe drastic difference between the development of an invention patent, design/trademark, then the elements composing their value are identical.

Thus, the value of resources used at the main stages of the development of internally generated patents and trademarks may form such intangible items costs. Of course, after each development stage or at least once a year it is necessary to evaluate the correspondence of project to the criteria of development costs capitalisation and the costs accrued for the period shall be either capitalised or written off. If in future the specialists and setters of standards will have conformity of opinions regarding the reinstatement of previously expensed costs

associated with the development of internally generated intangible items, then it will be necessary to make the respective corrections at the end of period.

Having studied the specialized literature, the authors have found that the specialists disagree on the following issue – is it justifiably to capitalise the development costs of the software internally developed for in-house use? The problems are caused by the fact that IASB does not provide for any special requirements on how an enterprise shall licence such computer software, or on what other document proves the company's property rights regarding the internally developed software and that could serve as a justification for its capitalisation. For example, Epstein, B.J., Jermakowicz E.K. present a point of view that internally developed computer software cannot be recognised as an intangible asset. The specialists substantiate their point of view on the aspect that while the program developed may have some utility to the entity itself, it would be difficult to demonstrate how the program would generate future economic benefits to the entity. Also, in the absence of any legal rights to control the program or to prevent others from using it, the recognition criteria would not be met (Epstein and Jermakowicz, 2010, p. 370).

According to the authors' point of view, the computer software developed internally for the in-house use may be capitalised and the above mentioned arguments do not justify the prohibition to recognise the internally developed computer software as an intangible asset. This could be substantiated by several arguments. Firstly, in conformity with IAS No.38 "Intangible Assets" para. 13, the legal enforceability of right is not a necessary condition for control because an entity may be able to control the future economic benefits in some other way. In this case it is necessary to take into consideration that, in conformity with the provisions regulating the protection of copyrights, if the computer software has been developed by an employee, while fulfilling the work task, then all property rights in relation to computer software generated in such a way are owned by the employer, thus the company also controls the computer software and its generated economic benefits. Secondly, the computer software complies with the intangible asset definition provided by IAS No.38, i.e. it is an identifiable non-monetary asset without physical substance, because theoretically it might be separated from the company and sold, leased or exchanged, if the company would have such an intent. Thirdly, if the realisation of computer software development project is rational, as well as, if the anticipated useful life of software in the company is sufficiently lengthy, it is able to ensure economic benefits in a form of savings for the payments of software licence. Fourthly, if the company carries out accurate and detailed monitoring of computer software development process, and there exists an efficient internal control system at the company, then the accounting department shall have sufficiently detailed information at its disposal on the costs of this process in order to evaluate credibly the costs of internally generated intangible item.

The fact that the recognition of internally generated computer software as intangible assets is logical can be justified also by the application of respective

accounting policy in practice in the USA. In conformity with ASC No.350 “Intangibles - Goodwill and Others”, the development project of computer software is divided into three stages: preliminary stage, development stage post-implementation/operation stage). Besides, in conformity with ASC No.350, the development stage, according to its essence, is identical to the development stage provided by IAS No.38. ASC No.350 provides that the costs of preliminary stage and operation stage shall be written off relating them to the financial result. In relation to the costs of development stage it is pointed out that all costs related to this stage and the development of computer software envisaged for the in-house use shall be capitalised.

Thus we can draw a conclusion that the provisions of ASC No.350 do not contradict with those of IAS No.38. They do not supplement the international standards, but only attribute the same accounting requirements to a particular type of internally generated intangible asset – computer software developed internally and envisaged for in-house use. The USA GAAP shall be considered as positive, because thus there has been precisely determined that the capitalisation of software internally developed for in-hose use is possible, and thus there have been eliminated the possible misunderstandings that could arise in relation to the accounting of these objects.

4. CONCLUSIONS AND FUTURE WORK

According to their economic essence and types the internally generated intangible assets are complicated and different; this, according to the authors' point of view, causes the differences in relation to the accounting policy of these assets. The main controversial aspects, influencing the choice of their accounting policy, are the following: the difficulty to prove their existence, the reliability value determination and the probability of the flow of economic benefits. Therefore, as established by authors, only an insignificant part of internally generated intangible assets may be capitalised and disclosed in the company's assets.

The performed research shows that the USA accounting policy in relation to internally generated intangible assets differs significantly from the internationally accepted approach. If the respective conditions come true, in the USA only software internally developed for in-hose use could be capitalised as an internally generated intangible asset. At present the aligning of the provisions of the USA and IAS takes place at an international level.

It is concluded in the research that in the documents regulating accounting (except for the USA) it is permitted to capitalise the internally generated patents and trademarks as intangible assets. However, in the studied specialized literature it is not showed, how to determine the costs of these patents and trademarks. Therefore the authors suggest that the determination of the costs

of internally generated patents and trademarks should be based on the main stages of their development and registration procedure.

It should be added that the authors plan to continue this research in future, including also the comparison and evaluation of the internally generated intangible asset accounting treatment as accepted by the EU companies. It is also necessary to perform more profound evaluation of the justification of capitalisation in relation to the reinstatement of previously expensed costs associated with the development of an internally generated intangible.

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ACCOUNTING STANDARDS AS A SUPPORT FOR QUALITY DECISION MAKING

JEL classification: M19, M49

Abstract

Decision making should be based on high quality information relevant for guiding companies towards achieving sustainable goals and objectives. Accounting and sustainability standards as well as chosen accounting instruments have significant impact on quality of information and possibilities of their comparison (benchmarking). This paper will present the research results of achieved level of sustainability accounting reporting system in Croatian hotel industry, especially in the field in which internal results can be used for external purposes. Outcomes of this research have great implications on the improvement of sustainability reporting system in Croatian hotel industry that is based on successful implementation of USALI and IFRS 8 standards and best EU practice. The research results indicate that Croatia has tradition of more than 20 years of segment reporting implementation, according to USALI standards, compatible with IFRS 8 (adopted from 1st January, 2009). Highest number of Croatian hotel companies report information only on two segments (room, food & beverage) significantly lower than 10th edition framework of USALI standards offer. Sustainable development information is presented only in few companies in Croatia, in order to satisfy formality, other than present useful information, made in

accordance with Global Reporting Initiative (GRI). The improvement in sustainability reporting system will enhance information transparency between companies and external users, and contribute to raising awareness of sustainability issues crucial for the development of the hotel itself and entire destination. For the purpose of enhancing quality sustainable reporting system for managers and external users (especially for nonfinancial information of sustainability), criteria of financial information presented according to standards USALI & IFRS 8 were applied. Contribution of this paper is in assessing the model of internal sustainability reporting, based on the hotel management information requirements and at the same time harmonized with the legal requirements and internationally accepted standards, with the possibility of international comparison.

Key words: *decision making, IFRS 8, USALI, segments reporting, responsible reporting*

1. INTRODUCTION

Decision making is the process which managers use to respond to opportunities and threats when analyzing options in order to accomplish goals and objectives and improve organizational performance. Managers must define problem for which decision is to be made, and use relevant information to decide what are the advantages and disadvantages of each alternative. Without this approach managers might repeat their mistakes. Qualitative characteristics of information are comparability, verifiability, timeliness and understandability. Accounting as a *language of business* offers qualitative characteristic of information and therefore is very important source of information used by managers in decision-making process. Mainly, the functions of accounting are to measure the activities of the company and communicate them to users, inside and outside of the company. The main role of financial accounting is to record business transactions, and communicate it to external users through financial statements. For decision making far more important information are those prepared by managerial accounting. The quality of financial information for internal users is higher when they are prepared on the basis of IFRS 8 and USALI standards. These are the standards which regulate segment reporting and allow comparison of internally generated results, with the similar results of other enterprises in the same industries or competition (benchmarking). The quality of presented information in the sustainability reports, prepared for internal and external users, is not unified as the financial information prepared by IFRS and USALI standard. The reason for this is because application of environmental and sustainability standards (ISO 14000ff, EMAS, GRI...) is not mandatory, and it lacks adequate regulations and experience in their application. However it is necessary to point out all the positive experiences in the sustainability reports prepared under GRI, in order to highlight the opportunities for improvement. Special emphasis will be placed on the opportunities to improving the quality of

sustainability reporting system, through the provision of linking the possibility of IFRS 8 and USALI standards with the requirements of the environment and sustainable development, in order to ensure higher level of information for internal and external users.

2. LITERATURE REVIEW, PREVIOUS RESEARCH AND GOOD PRACTICE

Theoretical approach of accounting role in preparing information for segment reporting, as well as environmental and sustainability reporting, together with relevant provisions of some standards and principles are important for understanding and assessing the research results. This is considered in the light of requirements that are placed in front of managers, which should expand the scale of their business in hard times and forced from competitors to become increasingly profit and cost-conscious in an effort to improve the economic performance. Management accounting information is required to help managers to make decisions in four broad areas: developing long-term plans and strategies, performance evaluation and control, allocating resources and determining costs and benefits (Atrill & McLaney, 2007: 21)

2.1. Responsibility accounting and decision making

Responsibility accounting tools (as a part of managerial accounting) aid in the delegation of authority by permitting the levels of management within the enterprises to be responsible for decisions regarding the economic factors of a company sub-units that they can control (Garrison, Noreen, Brewer, 2004). Reporting system based on the responsibility accounting information allow to communicate operating results through the management hierarchy. The information needed for decision making falls within the domain of the segment reporting system, which has to be appropriately developed and organized in companies in accordance with unique characteristics due to the various activities and management decision needs.

The task of management accounting is to recognize and measure these specifics to be presented in segmental reports, including financial and nonfinancial information that help managers in decision making process to fulfill the goals of an organization (Horngren, Datar, Madhay 2012). According to several authors (Harris 1992; Pardal, Morais 2012; Pisano, Landriana 2012) in shaping reportable segments, specific activities and attributes of some industry as a fixed facilities, direct/indirect contact with a customer and changeable customer demand, level of supply, diversifications, effective operational time, service and consumption, location, critical human factors, capital / labor intensity, cost structure and others should be recognized.

Nevertheless, the primary focus of segment reporting is to provide information about specific activities, processes, operating units, products and services for short time decision-making and control within the company. Segment reporting system is based on providing information for responsibility centers (units, departments, activities, processes...) within a company for whose

performance a manager is held responsible (Drury, 2012: 36-38). The basic idea of segment reporting is that each manager's performance should be judged by how well they manage the items under their control, by looking at costs and revenues from a personal control standpoint.

Management attention can be directed to differences, thereby permitting managers to focus their efforts where they will do the most good. In attempting to control costs and to optimize output, managers have to make decisions. Each manager is assigned responsibility for the items of revenues and costs under their control, and for deviations between strategic goals, budgeted objectives and the actual results. Segment reporting system is primarily oriented to meet management information requirements for short-term decision making. However, responsibility accounting provides information for evaluating whether the strategic objectives are successfully implemented in the defined time unit.

The task of responsibility accounting is to provide high-quality financial and non-financial information as an input of strategic decision making process. Information prepared by segments are very important as an input in the strategic decision making process, because together with other information provided from the environment and community, allow to assess the comparative advantages of the company (Downie 1997; Dent 1996; Govindarajan 1984; Simons 1990). It should be noted that in ever changing environment, managers use at greater extent information for short and long term decision making (Brander-Brown & Atkinson, 2001; Potter, Schmidgall 1999). In this way, decision making includes also customer needs for achieving strategic goals (Damonte, Rompf, Bahl, Domke, 1997), which means that information about customers' profitability and competitors' ability are very important part of company's long term stability in the market.

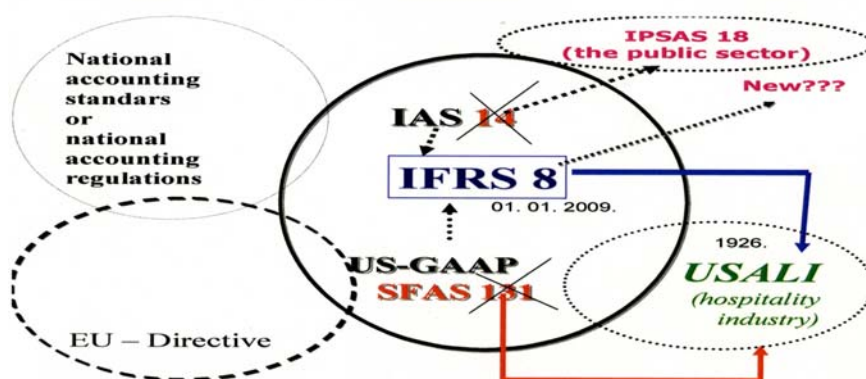
2.2. Global accounting standards as a framework for segment reporting

Segment reporting is a term defined by global accounting standard IFRS 8 (International Financial Reporting Standard 8), issued in 2006 by the International Accounting Standard Board and introduced for application (in EU as well as in Croatia) from the first of January 2009 (IFRS, 2009: 713 - 775). IFRS 8 provides the rules for identification and aggregation of different operating segments, to be determined as reportable segments for information disclosed and reported to the CODM (Chief Operating Decision Maker), the highest level of management (function, not a title), responsible for the entity's overall resource allocation and performance assessment by segments. Operating segments are components of an entity that engage in business activities for which separate financial information is available that is reviewed regularly by the CODM (IFRS, 2009: p.8.5)

IFRS 8 is a result of global harmonization process of accounting standards which started by signing the agreement between IASB (<http://www.ifrs.org>) and FASB (<http://www.fasb.org>). IFRS 8 replaced the previously valid US GAAP SFAS 131 (Generally Accepted Accounting

Principles - Statement of Financial Accounting Standards 131) and IAS 14 (International Accounting Standard 14). In fact, for segment reporting companies that have their shares listed on the NYSE that were previously using US GAAP SFAS 131, and companies listed on the LSE that were obliged to use IAS 14, the inconsistency of those standards caused consolidation problem for companies operating in different countries on two or more continents. The following figure presents Genesis of the IFRS 8 evaluation and its relationship with similar segment reporting standards.

Figure 1: Relationship between segment reporting standards



Source: Prepared by authors based on IFRS 8, 2009, p. 713 - 775

As IFRS 8 took over more than 80% of the content of US GAAP SFAS 131, it provides higher degree of compliance with the USALI standards (Uniform System of Accounts for the Lodging Industry). The USALI standard exists since 1926, and currently its 10th edition is in use (USALI, 2006). Originally USALI offers standardized classification of accounts and framework for preparation and presentation of specific information on segment level (Popowich, Taylor, Sydor, 1997) that enables hotel managers to assess and evaluate departmental performance, costs and revenues within their level of control.

Level of development and positive experiences of USALI standards in the Croatian hospitality industry will be explored as well as the possibilities for wider application of segment reporting in other industries, based on the provisions of IFRS 8. The problem occurs in non-compliance between new global profit sector standard (IFRS 8) and public sector standard IPSAS 18. As IPSAS 18 is based on the former IAS 14, its concept, content and objective is not yet harmonized with the new IFRS 8 as well as USALI standards, In order to

provide the consolidation of reported results by segments in profit and public sector, the need for changing conception of IPSAS 18 and to its adjustment to the conceptual framework of IFRS 8 is crucial (Peršić 2009; 2011).

Basic starting points for adjusting IPSAS 18 to the IFRS 8 are requirements that refer to the segment disclosure components of the entity level that management monitors in making decisions about operating matters. IFRS 8 differs from IAS 14 (which requires the disclosure of two sets of segments - business and geographical) in “management approach” which describes basic orientation to see an entity “through the eyes of management” connected with the requirement to disclose more qualitative elements, such the factors used to identify operating segments of entities. Even if an entity has only one reportable segment, IFRS 8 requires disclosure on the entity’s products and services, geographical areas and major customers (IFRS, 2009: p.8BC6).

2.3. USALI as a reporting standards for hospitality industry

What global standard IFRS 8 in segment reporting means for all industries, USALI means for world-wide hotel industry. It offers thirteen schedules that create framework for reporting information on segments, which can be internally and externally compared (benchmarking). It offers standardized formats and mode of account classifications to guide individuals in the process of preparing segmental reports. The most important are activities that have market position and on which internal reporting organization of reporting and cost control has to be focused.

USALI presents information on the level of responsibility profit center (revenue, costs and internal results) of all accommodation activities (Schedule 1 - Rooms), food and beverage activities (Schedule 2 - Food and Beverage), sum of market-recognized other hotel services (Schedule 3 - Other Operated Departments) and other type of incomes (Schedule 4 - Rentals and Other Income) (USALI, 2006: 33 -129). It also presents nine (5 - 13) schedules for cost centers (Administrative and General; Sales and Marketing; Property Operation and Maintenance; Utilities; Management Fees; Rent, Property and Other Taxes and Insurance; House Laundry; Employee Cafeteria; Payroll Related Expenses) and enables comparison among hotels (USALI, 2006: 130 -178).

Horwath Consulting Zagreb use USALI standard for monitoring market and financial hotel performances of Croatian hotels through the implementation of the benchmarking on the local, regional and international level. Periodically published research results highlight actual, budgeted, estimated and expected data, and financial information are disclosed in Kuna and €. Different common and segment specific information such as: RevPAR, average size of rooms, yearly based average room occupancy, average room rate, operating revenue per available room, average no of employees per room, average number of restaurants, bars, F&B outlets, congress & meeting facilities, swimming pools, fitness center, children’s club, sports halls, tennis courts, golf courts, casinos, marina, garage und parking, departmental payroll expenses per employee, GOP

and in % of operating revenue, EBITDA and in % of total revenue, variable and controllable costs structure by segments and others are presented in publication (Horwath 2010).

The authors have been conducting this research in the Croatian hospitality industry, systematically in the last 15 years, and conclude that USALI standards have been successfully implemented and report results improved (Ilić 1997; Turčić 2000; Peršić, Janković 2006; Peršić, Poldrugovac 2009, 2011; Peršić, Poldrugovac, Janković, 2012; Peruško-Stipić 2009; Zanini 2004, 2011). But at the same time a sufficient degree of harmonization between operating statement based on USALI standards and information disclosed in the notes to the financial statements have not been yet achieved. Thus, only a smaller number of Croatian hotel companies disclose information on their segments in the Notes to financial statements mostly for two segments (room, food & beverage) which is narrower than the possibility of USALI standard framework (CFA, 2013).

The research results generally indicate that Croatian hospitality industry has a long tradition (more than 20 years of experience) in the segment reporting according to USALI standards. It enables external comparison of internal results prepared by segments in the same way on which management meets their information requirements for making operating decision and in assessing performance. Thus, the research carried out in year 2000, on the sample of 42% hotels, indicated a high level of implementation USALI standards, because 68,6% of investigated hotels had partially or fully implemented segment reporting system (Peršić, Turčić 2001: 133-150).

Today the percentage of hotels which use USALI standard (in national and foreign ownership) is significantly higher, and in the last few years attempts from side of Ministry of tourism, Croatian hotel association and Faculty of tourism and hospitality management were made in order to give support to the IT technology for enabling benchmarking. The goal is to ensure comparison among hotels in Croatian hospitality industry, to assess the achieved level of competitiveness, based on the information presented in operating statements, prepared by USALI standards, which would have been supplemented with reports on customers and employees (Peršić, Janković 2010, 2011).

Article 18 of Croatian Accounting Act (OG 109/07; 54/13) requires disclosure of the "information about the environment", the conclusion is that these facilities should be reported by segment too, as well as information about customers and employees, which are already involved in the concept of benchmarking. Croatian tourism development strategy until 2020 (OG 55/13) follows the principles of sustainable development, and hotel managers as well as external users systematically indicate the need that this part of information would be officially included in reporting system for internal and external users (Janković, Peršić 2011; Janković, Peršić, Zanini-Gavranić 2011; Peršić, Poldrugovac 2011; Peršić, Janković, Vlašić, Vejzagić 2007; Peršić, Janković, Vejzagić 2010; Vejzagić, Peršić, Janković 2012; Vlašić, 2012).

It actually opens up the need that the USALI segment reporting system will be supplemented with the new type of reports which will contain relevant information on acquired level of environment care and achieved goals of sustainable development, based on the order of standards ISO 14000ff and Global Reporting Initiative (GRI 3.1.) etc.. Solving these problems is expected to be included in next 11th edition of the USALI standards. This would provide the starting point for decision making in the field of environmental protection and relations to the community, in a way to ensure uniform system of information from segment to the national level. This would enable the presentation of internally achieved results to external users, in accordance with standards, different requirements, national and regional regulations.

The information communicated in segment reporting is mostly financial, although non-financial information should be included as well (Ivanković 2004; Kavčič, Ivanković 2006). Changing needs of business stresses the importance of including non-financial measures in segment reporting process due to better assessing divisional performance (Atrill & McLaney, 2007: 374-376), which means the information of environmental and social responsibility should also be presented (Jianu, Jianu, Raileanu, 2011), following the goals of the companies' sustainable development.

Managers need this type of information to guide their actions towards achieving sustainable development goals, and these requirements, should adjust accounting information system as well as reporting system for internal and external users (Banker, Potter, Srinivasan, 2000; Brander Brown, 1995; Mia, Patiar, 2001; Philips 1999; Oavlatos, Paggios, 2009). In this way it is necessary to conduct specific research to indicate the connectivity of USALI and IFRS 8 standard with the management requirements as well as external users, necessary for the quality of business decisions making and to be able to evaluate the improvement in the relationship of the environment and community.

This approach pointed out the possibility of using proven accounting tools in order to present information for decision making, which besides economic views of development includes also the ethical way of thinking. In the process of business decision making environmental and sustainability information can no longer be ignored, because of their great importance in the long-term impact on business success. The quality of decisions made is as strong as the weakest element in the global company information system, which should be fully compliant with the requirements of internal (management) and external users (stakeholders) of information for which environmental conditions should be included in companies operations.

3. RESEARCH RESULTS - POSSIBILITY OF IMPLEMENTING ENVIRONMENTAL AND SUSTAINABILITY SEGMENT REPORTING

Provisions of Article 18 of the Croatian Accounting Act (OG - 109/07; 54/13) require information on environmental protection and sustainable development to be presented in all industries. Provisions of Article 13 of the same

Accounting Act Listed companies require the application of IFRS, which means that companies need to prepare and present information on segments, according to IFRS 8. This means that all listed companies are obligated to present information on operating segments and thus provide the opportunity for better communication with shareholders. Segmental information disclosed in consolidated financial statements, allowing the CEO and external users to see business performances through the eyes of responsible segment's management. Therefore the state of segment reporting in listed companies in Croatia will be explored. Also, the possibilities of incorporating ecological and social information into the segment reporting system, based on the research results of Croatian Business Council for Sustainable development will be presented (HR BCSD, 2013).

3.1. Segment reporting in Croatian listed companies based on IFRS 8

The study was conducted during year 2012 in order to examine the presence of segment reporting in the Croatian listed companies. Emphasis was placed on assessing the quality of information presented in the consolidated financial statement to decide if the stakeholders can take the view of company business as well as segmental managers. Selected sample includes those companies that listed their shares on the ZSE (Zagreb Stock Exchange) e.g. 25 different industries divided according to the national sector classification (table 1).

Table 1: Segment reporting present in the listed companies in Croatia

Industries according to the GICS and national sector classification	Examined listed companies	Companies which presented segmental	% (2) of (1)
0	1	2	3
74. Business services (legal, accounting, architecture, engineering, technical testing, analysis ...)	10	4	40,0
40. / 65. Finance & Insurance	33	12	36,4
55. Accommodation / Food & Beverage	41	13	31,7
30. Food, Beverages & Tobacco Products	22	5	22,7
31. / 32. Manufacture of electrical equipment	9	2	22,2
20. / 61. - 63. Transportation and storage	12	2	16,7
15. - 21./ 24 - 36. Production of wood and paper products; coke, and refined petroleum products; chemicals and chemical products; pharmaceutical products and preparations; computer, printer, electronic and optical products; textiles, apparel, leather; rubber, plastics products, non-metallic mineral product; metals products; machinery and transport equipment	30	5	16,7
42. Construction	10	1	10,0
All other activities	29	5	12,8
Total	206	49	23,8

Source: Analysis of information presented in the notes of financial statements

from Croatian companies listed on the ZSE and classified by GICS Global Industry Classification Standard and National classification (OG 58/07)

Table 1 shows that only 23,8% of listed Croatian companies disclose information on segments in the Notes to financial statements. First position or largest number of companies that report segment information belongs to "Accommodation & Food and Beverage". In this group 13 companies present segment information, which makes 31,7% and is more than the average (23,8%) but less than group of companies which offer legal, accounting, architecture, engineering, technical testing, analysis and similar business activities, in which segment reporting for external users is present in 40% of examined companies. Next position in frequency belongs to the group "Finance & Insurance" where 36,4% of companies present segmental information in their Notes to financial statements. In other groups of industries the percentage of segment reporting companies falls below the average, because only 10 of 206 listed companies, present information on the segment level. This suggests to the conclusion, that most of the listed companies do not apply the provisions of this part of the Accounting Act.

3.2. Reporting system of environment and social responsibility in Croatian companies

The research of assessing the environmental and social responsibility of Croatian companies was conducted in spring 2013, and is based on exploring the site of HR BCSD (The Croatian Business Council for Sustainable Development) founded in 1997 as an independent non-profit association. It includes 39 members in total, of which 19 from the industrial sector, 9 representatives of big service industries as tourism, banking and utilities, and others in small businesses, consulting agencies, expert institutions, environmental NGO, media, private business school and one institution from Slovenia (<http://www.hrpsor.hr>). But, as not all member companies publish information about sustainability and environmental care, only 23 presented reports of Croatian companies were analyzed.

It is indicative that only 59% of HR BCSD members present their reports for the public use (AGROKOR; Highway Rijeka-Zagreb; Banco Popolare Croatia; Carlsberg Croatia; Coca-Cola Beverages Croatia; DUKAT; Ericsson Nikola Tesla; Farmal; Hartmann Croatia; Hauska & Partner; HEP - Croatian Electric Power Industry; Holcim; Croatian Telecom; INA; Adriatic Galenical Laboratory; Stone Sirač; KONČAR; Končar - Institute of Electrical Engineering; PLIVA; PODRAVKA; T-HT group; The Bank of Zagreb; Zagreb Airport). These reports were prepared in the period from 2003 till 2011 and present current state of corporate social responsibility, following experiences and global key trends in environment, supply chain, human rights, engagement in the community, sustainable products and services and others (<http://www.hrpsor.hr>). This indicates that only a small number of Croatian companies follow trends and experiences of environmental and sustainability reporting, according to accepted

standards and principles (GRI, UN Global Compact's requirements, ISO 14001, EMAS ...).

There is no regulation regarding reporting on corporate social responsibility and sustainable development in Croatia (CSR, 2010: 14). The research results indicate that this type of reports is not present in continuous nor in standardized way (form and content). Some companies present reports mainly every year (Pliva; Highway Rijeka-Zagreb), some every two years (Holcim), some in reports present information for two or more years (Agrokor; Zagreb Airport) and some make combinations between more possibilities (Coca-Cola Beverages Croatia; T-HT group). Some of the companies, which presented this type of reports on regular basis (since 2003), others have given up on reporting them (Ericsson Nikola Tesla; Hauska & Partner; INA; Stone Sirač; Podravka; The Bank of Zagreb...), and some have so far released only one or two reports (Agrokor; Banco Popolare Croatia; Dukat; Farmal; Hauska & Partner; HEP; Croatian Telecom; Adriatic Galenical Laboratory, Stone Sirač; The Bank of Zagreb; Zagreb Airport) in the last ten years.

Among 72 different reports presented by HR PSOR, the most commonly used term is "Report of Sustainable Development"(34,7%) followed by the term "Sustainability Report" (22,2%). Previous years the term "Environmental protection report" (15,3%) was used, and in recent years the terms "Report on socially responsible business"(9,7%) or "Corporate Social Responsibility" (6,9%) are becoming more popular. Significantly less in use appear terms "Social report (4,2%), "Annual Report" (4,2), "Sustainability and social responsibility report" (1,4%) or "Progress Report" (1,4%) (<http://www.hrpsor.hr>).

Regardless to the name of the report, special attention is paid to issues of environmental protection, often referring to ISO 14000ff certification standards, following the national environmental policy (waste, water, CO² emissions, gas emissions ..) and National Sustainable Development Strategy (SSDC 2009; OG 110/07). This information is also connected with the provisions of the Environmental Protection and Energy Efficiency Fund of the Republic of Croatia (OG 107/2003), structured as an extra-budgetary fund which finances projects and activities in three basic areas: environmental protection, energy efficiency, and the use of renewable energy sources.

The important part of reports' content is focused on labor and human rights, employee's satisfaction and education, community involvement and development, organizational governance, as well as communication with the consumers and suppliers in order to be provided with sustainable products and services. Human rights are very important issue in the sustainability and social responsibility report, and in the last years the problem of stress increase at work is highly considered. The companies are trying to be more and more engaged in local communities, by financially supporting local sports clubs, humanitarian projects and activities guided by NGOs or other stakeholders. Orientation on sustainable products and services is also presented in reports, following trends and orientation of the EU and specific needs of particular industries. The frequency and content of items in sustainability reports will be presented in table

2, according to the analysis 11 sustainability reports of Croatian companies, published in the last three years ((1) Agrokor; (2) Highway Rijeka-Zagreb; (3) Banco Popolare Croatia; (4) Carlsberg Croatia; (5) Dukat; (6) Hartman Croatia; (7) Holcim; (8) Telecom Croatia; (9) Adriatic Galenic Laboratory; (10) Končar and (11) Pliva - <http://www.hrpsor.hr>).

Table 2: Content and frequency of items disclosed in the sustainability reports of Croatian companies in the last three years based on the GRI 3.1.

GRI - SUSTAINABILITY PERFORMANCE INDICATORS	Companies in Croatia that disclose sustainability reports*										
	1	2	3	4	5	6	7	8	9	10	11
ECONOMIC PERFORMANCE INDICATORS											
ECONOMIC PERFORMANCE											
EC1: Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital	X	X	X			X	X	X	X		X
climate change	X	X			X	X	X		X		
EC3: Coverage of the organization's defined benefit plan obligations	X	X			X	X					
EC4: Significant financial assistance received from government	X	X			X	X					
MARKET PRESENCE											
EC5: Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation			X					X		X	
EC6: Policy, practices, and proportion of spending on locally-base suppliers at significant locations of operation	X	X			X	X					
EC7: Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation	X	X			X	X		X		X	
INDIRECT ECONOMIC IMPACTS											
EC8: Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro bono engagement			X		X	X					
EC9: Understanding and describing significant indirect economic impacts, including the extent of impacts			X		X	X					
ENVIRONMENTAL PERFORMANCE INDICATORS											
MATERIALS											
EN1: Materials used by weight or volume	X	X			X	X					
EN1: Percentage of materials used that are recycled input materials	X	X			X	X	X				
ENERGY											
EN3: Direct energy consumption by primary energy source	X	X	X	X	X	X	X	X	X		X
EN4: Indirect energy consumption by primary source	X	X	X			X	X			X	
EN5: Energy saved due to conservation and efficiency improvements			X			X	X				
EN6: Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives			X			X	X			X	
EN7: Initiatives to reduce indirect energy consumption and reductions achieved			X			X	X				

WATER									
EN6 Total water withdrawal by source	X	X	X	X	X	X	X	X	X
EN7 Water sources significantly affected by withdrawal of water		X			X	X			X
EN8 Percentage and total volume of water recycled and reused					X	X			
BIODIVERSITY									
EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	X	X			X	X			X
EN12 Description of significant impacts of activities products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	X	X			X	X			X
EN13 Habitats protected or restored		X			X	X			
EN14 Strategies, current actions, and future plans for managing impacts on biodiversity		X			X	X	X		
EN15 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk		X			X	X			
EMISSIONS, EFFLUENTS, WASTE									
EN16 Total direct and indirect greenhouse gas emissions by weight	X		X		X	X	X		X
EN17 Other relevant indirect greenhouse gas emissions by weight	X				X	X			X
EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved					X	X	X	X	
EN19 Emissions of ozone-depleting substances by weight	X				X	X			
EN20 NO ₂ , SO ₂ and other significant air emissions by type and weight	X				X	X	X	X	X
EN21 Total water discharge by quality and destination	X				X	X	X	X	X
EN22 Total weight of waste by type and disposal method	X	X	X	X	X	X	X	X	X
EN23 Total number and volume of significant spills	X				X	X			
EN24 Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally						X	X		X
EN25 Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water und runoff						X	X		
PRODUCTS & SERVICES									
EN26 Initiatives to mitigate environmental impacts of products and services, and extant of impact mitigation	X	X	X		X	X	X	X	X
EN27 Percentage of products sold in their packaging materials that are reclaimed by category	X				X	X			X
COMPLIANCE									
EN28 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	X	X			X	X	X		X
TRANSPORT									
EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	X				X	X			
OVERALL									
EN30 Total environmental protection expenditures and investments by type	X	X					X	X	X
SOCIAL PERFORMANCE INDICATORS									
LABOR PRACTICES AND DECENT WORK PERFORMANCE INDICATORS									
EMPLOYMENT									
LA1 Total workforce by employment type, employment contract, and region	X	X	X		X	X	X	X	X
LA2 Total number and rate of employee turnover by age group, gender and region	X	X	X		X	X	X	X	X
LA3 Benefits provided to full-time employees that are not provided to temporary or part-time employees	X	X			X	X			X
LABOR / MANAGEMENT RELATIONS									
LA4 Percentage of employees covered by collective bargaining agreements	X				X	X			X
collective agreements					X	X			
OCCUPATIONAL HEALTH AND SAFETY									
LA5 Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs						X	X		X
fatalities by region	X	X	X		X	X	X	X	X
LA6 Education, training, counselling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases	X	X	X		X	X			X
LA7 Health and safety topics covered in formal agreements with trade unions	X	X	X		X	X			X

TRAINING AND EDUCATION										
LA10	Average hours of training per year per employee by employee category	X	X	X		X	X	X	X	X
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings		X	X		X	X	X	X	X
LA12	Percentage of employees receiving regular performance and career development reviews					X	X	X		
DIVERSITY AND EQUAL OPPORTUNITY										
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity	X	X	X		X	X	X	X	X
LA14	Ratio of basic salary of men to women by employee category	X				X	X	X		
HUMAN RIGHTS PERFORMANCE INDICATORS										
INVESTMENT AND PROCUREMENT PRACTICES										
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening and actions taken					X	X			
HR2	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained					X	X	X		
NON DISCRIMINATION										
HR4	Total number of incidents of discrimination and actions taken		X			X	X	X	X	X
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING										
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	X	X			X	X	X	X	X
CHILD LABOR										
HR6	Operations identified as having significant risk for incidents of child labour and measures taken to contribute to the elimination of child labour		X			X	X	X	X	X
FORCED AND COMPULSORY LABOR										
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour and measures to contribute to the elimination of forced or compulsory labour		X			X	X	X	X	X
SECURITY PRACTICES										
HR8	Percentage of security personnel trained in the organization's policies or procedure concerning aspects of human rights that are relevant to operations							X		
INDIGENOUS RIGHTS										
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken							X		
	impact assessments							X		
HR11	number of grievances related to human rights filed, addressed and resolved through formal							X		
SOCIETY PERFORMANCE INDICATORS										
COMMUNITY										
SO1	Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and existing					X	X	X	X	X
CORRUPTION										
SO2	Percentage and total number of business units analysed for risks related to corruption		X				X	X	X	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures						X	X	X	
SO4	ACTIONS TAKEN IN RESPONSE TO INCIDENTS OF CORRUPTION						X	X	X	
PUBLIC POLICY										
SO5	Public policy positions and participation in public policy development and lobbying		X				X	X	X	X
SO6	Total value of financial and in-kind contributions to political parties, politicians and related institutions by country						X	X	X	
ANTI-COMPETITIVE BEHAVIOUR										
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes						X	X		
COMPLIANCE										
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations		X	X			X	X		

TRANSPORT									
EN7 Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	X				X	X			
OVERALL					X				
EN8 Total environmental protection expenditures and investments by type	X	X				X	X	X	
SOCIAL PERFORMANCE INDICATORS									
LABOR PRACTICES AND DECENT WORK PERFORMANCE INDICATORS									
EMPLOYMENT									
LA1 Total workforce by employment type, employment contract, and region	X	X	X		X	X	X	X	X
LA2 Total number and rate of employee turnover by age group, gender and region	X	X	X		X	X	X	X	X
LA3 Benefits provided to full-time employees that are not provided to temporary or part-time employees.	X	X			X	X			X
LABOR / MANAGEMENT RELATIONS									
LA4 Percentage of employees covered by collective bargaining agreements	X				X	X			X
collective agreements					X	X			
OCCUPATIONAL HEALTH AND SAFETY									
LA5 Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs					X	X			X
fatalities by region	X	X	X		X	X	X	X	X
LA6 Education, training, counselling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases	X	X	X		X	X			X
LA7 Health and safety topics covered in formal agreements with trade unions	X	X	X		X	X			X
TRAINING AND EDUCATION									
LA8 Average hours of training per year per employee by employee category	X	X	X		X	X	X	X	X
LA11 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings			X	X	X	X	X		X
LA12 Percentage of employees receiving regular performance and career development reviews					X	X	X		
DIVERSITY AND EQUAL OPPORTUNITY									
LA13 Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity	X	X	X		X	X	X	X	X
LA14 Ratio of basic salary of men to women by employee category	X				X	X			X
HUMAN RIGHTS PERFORMANCE INDICATORS									
INVESTMENT AND PROCUREMENT PRACTICES									
HR1 Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening and actions taken					X	X			
HR3 Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained					X	X	X		
NON DISCRIMINATION									
HR4 Total number of incidents of discrimination and actions taken		X			X	X	X		X
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING									
HR5 Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	X	X			X	X	X		X
CHILD LABOR									
HR6 Operations identified as having significant risk for incidents of child labour and measures taken to contribute to the elimination of child labour		X			X	X	X		X
FORCED AND COMPULSORY LABOR									
HR7 Operations identified as having significant risk for incidents of forced or compulsory labour and measures to contribute to the elimination of forced or compulsory labour		X			X	X	X		X
SECURITY PRACTICES									
HR8 Percentage of security personnel trained in the organization's policies or procedure concerning aspects of human rights that are relevant to operations							X		
INDIGENOUS RIGHTS									
HR9 Total number of incidents of violations involving rights of indigenous people and actions taken							X		
HR10 Percentage and total number of operations that been subject to human rights reviews and/or impact assessments							X		
HR 11 number of grievances related to human rights filed, addressed and resolved through formal							X		

SOCIETY PERFORMANCE INDICATORS										
COMMUNITY										
SO: Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and existing							X	X	X	X
CORRUPTION										
SO: Percentage and total number of business units analysed for risks related to corruption	X						X	X	X	
SO: Percentage of employees trained in organization's anti-corruption policies and procedures							X	X	X	
SO: ACTIONS TAKEN IN RESPONSE TO INCIDENTS OF CORRUPTION							X	X	X	
PUBLIC POLICY										
SO: Public policy positions and participation in public policy development and lobbying	X						X	X	X	X
SO: Total value of financial and in-kind contributions to political parties, politicians and related institutions by country							X	X	X	
ANTI-COMPETITIVE BEHAVIOUR										
SO: Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes							X	X		
COMPLIANCE										
SO: Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	X	X					X	X		
PRODUCTS RESPONSIBILITY PERFORMANCE INDICATORS										
CUSTOMER HEALTH AND SAFETY										
PR: Life cycle stages in which health and safety impacts of products and services are assessed for improvement and percentage of significant products and services categories subject to such procedures	X	X					X	X	X	X
PR: Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle by type of outcomes	X						X	X		
PRODUCT AND SERVICE LABELING										
PR: Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements	X	X					X	X	X	X
PR: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling by type of outcomes	X	X					X	X		
PR: Practices related to customer satisfaction including results of surveys measuring customer	X	X					X	X	X	
MARKETING COMMUNICATIONS										
PR: Program for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion and sponsorship	X	X	X				X	X		X
PR: Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by type of outcomes	X	X					X	X		
CUSTOMER PRIVACY										
PR: Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data							X	X	X	
COMPLIANCE										
PR: Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services							X		X	
LEGEND: (1) AGROKOR; (2) HIGHWAY RIJEKA-ZAGREB; (3) BANCO POPOLARE CRATIA; (4) CARLSBERG CROATIA; (5) DUKAT; (6) HARTMAN CROATIA; (7) HOLCIM; (8) TELECOM CROATIA; (9) ADRIATIC GALENIC LABORATORY; (10) KONČAR (11) PLIVA										

It should be noted that for last three years only about 5% of listed companies in Croatia (11 of 206 - table 1) disclose their sustainability report for public use on the web pages of HRPSOR (<http://www.hrpsor.hr>). Volume, manner and character of presented information is not a quality basis for comparison, as this was the case in which IFRS and USALI standards ensured in the area of financial reporting for internal and external users. It can be concluded that this type of information is primarily oriented to satisfy formality, and not to be really involved in process of achieving the goals of sustainable development presented in National Sustainable Development Strategy. Some activities of The Croatian Business Council for Sustainable Development indicate that improvements can be expected especially through the use of CSR Index to rank companies based on their non-financial impacts and provide input to the environmental legislation throughout the business sector.

4. DISCUSSION AND KEY FINDINGS

In order to make externally presented information on sustainability objective and useful for users, internal (segments) reporting system should be introduced together with the provisions of the IFRS 8 as well as the USALI standards. Separate reports that contain information on financial effects of economic, environmental, social and governance performance resulting from management decision making should be established. In this way internal sustainable reporting system should be established similarly to the external financial reporting system. This approach could provide the preconditions for standardization of sustainability reports, their form and content, rules and metrics for their disclosure, which would also ensure background for comparison of internally and externally presented data.

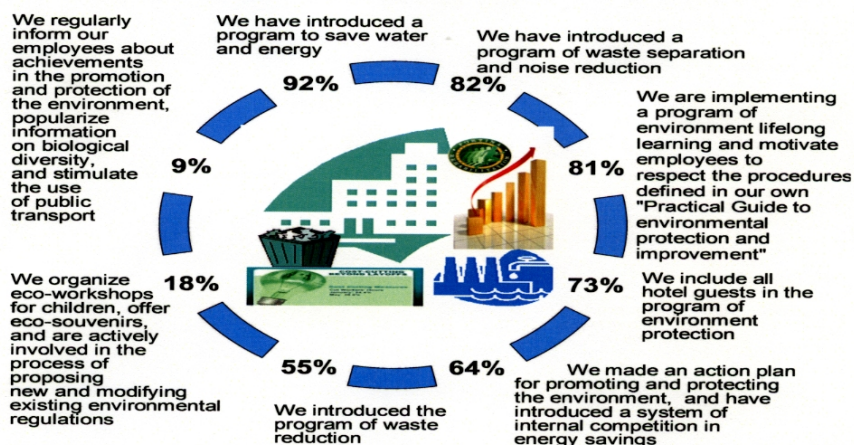
The set of internal sustainability reports should be established following the provisions of Global Reporting Initiative (GRI)'s Sustainability Reporting Framework and Guidelines together with the requirements of IFRS 8 and USALI. This would lead to unification of published companies' sustainability reports, first in hospitality industry and then in other sectors, in a way to make all internally and externally presented data and information on sustainability comparable, which is similar to the financial information made under the provisions of IFRS. Namely, GRI works to make sustainability reporting a mainstream activity because GRI's guidance is designed to be used by all companies and organizations in process of presenting information to external users.

At the same time, setting up sustainability reports for internal users, based on provisions of IFRS 8 and USALI standards, would create preconditions for the short and long time decision making on the level of segments and strategic business units (SBU) and enable comparison of results among companies within the same industries. Such an integrated approach to the establishment of system for internal and external sustainability reporting can play a major role in ensuring high quality data and information of all companies sustainability reports that in this way can become comparable in the future. To achieve this, it would be necessary to ensure legal and organizational conditions for the implementation of

these requirements, which would undoubtedly increase number of companies and organizations that want to make operations sustainable and compare their achieved results prepared by the same criteria (benchmarking).

Analyzed research results confirm that in the Croatian hotel companies prerequisites to achieve these goals exist. The USALI standard is longer in use than IFRS 8 and consequently the gained positive experience from them can successfully be implemented in other industries. Implementing the experience of these standards can greatly improve sustainability reporting system for internal and external users. The research conducted on the sample of 199 four- and five-stars hotels that belong to Croatian largest hotel companies identified main dimensions of environmental data and information, as an important part of sustainability information (Janković, Peršić, Zanini-Gavranić, 2012: 121-136). It investigated the way managers are involved in the process of improvement and protection of the environment and the significance of quality and environmental costs in decision making process. The research results are presented in the figure 2.

Figure 2: Significance of environmental information in the Croatian hospitality industry



Source: Author's research results presented in Jankovic, Persic, Zanini-Gavranić, 2012: 121-136

Environmental information significance depends on the achieved level of activity and success of individual eco-programs. The best results are recorded in water and energy savings (92%), waste separation and noise reduction (82%), employees environmental lifelong learning (LLL) and in respecting the procedure defined in internal environmental care practical guide (81%). More and more emphasis is placed on the inclusion of hotel guests in the environmental

protection program (73%), but also in motivating everyone to be included in energy saving through interlinked competition (64%) as well as in the waste reduction (55%). Those programs which can successfully be implemented only in close cooperation with other subjects in tourist destination and nearby communities are less present. The offer still lacks larger number of eco-souvenirs (18%), proper environmental regulations (18%), there is little attention paid to the introduction of environmentally friendly public transport (9%) as well as to the other aspects of sustainable development (9%).

Research results also show that managers in the Croatian hospitality industry are very much interested in adjusting their own relationship to the environment, depending on the customer needs and wishes (92%) and to stimulating employees to achieve higher levels of quality in environmental protection, ensuring continuous improvement, locating and eliminating the causes of constraints (82%). It is very important to emphasize that this approach pursued creating preconditions for managing business according to the principles of sustainable development and raising competitiveness on the target market (73%) and for establishing the criteria for evaluating the quality of management decision-making process (55%).

Managers in the Croatian hospitality industry show less interest in operating in the area of providing guidance for legislation compliance (36%), and for compliance with quality and eco-standards as HACCP, ISO 9001, ISO 14001...(27%). The above mentioned focuses on short- and medium- term decision making, so greater emphasis should be placed on the provisions of information to assessing the strategies and their implementation (18%). Very little was done for improving accounting reporting systems in order to make preconditions for evaluating the success of TQEM-a and eco-business programs, to identify and punish those who are responsible for poor eco-quality, and act contrary to the principles of sustainable development (18%). Only in trace amounts are recognized in preparation of eco-balance (LCA - Life Cycle Assessment), i.e. hotel companies do not provide the real preconditions for all stages of the processes in the entire product life cycle (9%).

The authors are also investigating the achieved level of sustainable reporting in Croatian hotel companies (Peršić, M. Janković, S., Bakija, K., Poldrugovac, K. 2013 : 319-334). The research results are based on relevant data from the seven largest Croatian hotel companies (47 hotels), listed on the Zagreb Stock Exchange and represent 10% of the overall number of 3-5 star hotels in Croatia. Only 28% of them prepare sustainability reports, among which only 33% are published annually (the rest if is necessary). The main reason for applying the principles of sustainable development is to increase their reputation in the eyes of their business partners (100%), to increase the loyalty of employees (85%) or to provide a competitive advantage to attract investors (67%). Only some respondents believe that adopting sustainability principles can contribute significantly to sales growth and increased market share, as well as to an increase in the level of productivity (33%).

The starting points for preparing sustainability reports are principles of the “Global Compact” or “CSR Index”, although not a single hotel company uses the GRI framework. This suggests the deviations of the way on which sustainability reports in other industries (table 2) where sustainability reports primarily refer to the GRI framework are prepared. Namely, GRI’s framework has become (de facto) standard in sustainability reporting, because it offers the credibility, consistency and comparability of data and information included in the internal and external sustainability reporting system.

GRI framework provides to all companies the unique approach in the process of collecting, registering and presenting data and information, which allows examination of the achieved level of goals and objective in the field of sustainable development. It also includes the possibility of perceiving the benefits of the implementation of the principle of sustainable development of companies and its stakeholders. It should also be kept in mind that sustainability is a journey, and along the way, companies need to set goals, measure performance, and integrate a sustainability strategy into their core planning. Since the sustainable reports should include data on the economic, environmental and social components, an upgrade to previous research in form of new research results about sustainable development of hotel companies should be presented.

The economic components are mostly oriented to the evaluation of market presence indicators (100%), somewhat less on the overall economic performance (67%), and at last on the indirect economic impact, which corresponds to the previously presented results of sustainability reports of all industries (table 2). Economic and environmental components are included in the determination of costs and benefits, connecting to the quality and environmental policies of hotel companies. To report this kind of information, it is necessary to provide the relevant sources. Table 3 shows possible sources of information, which can be used in Croatian hotel companies as a basis for establishing sustainable reporting system for internal and external users.

Table 3: Sources of information for sustainable reporting in Croatian hotel companies

Tools and sources of environmental costs assessment	Accommodation (lodging service)	Food and beverage preparation service	Food and beverage sales service	Other hotel services	Non-commercial and administrative
	%	%	%	%	%
Questionnaire	73	73	64	27	9
Hotel journal	64	-	-	-	-
Budget	73	73	64	27	9
Surveys conducted by travel agencies	73	-	-	-	-
Statistics	36	73	64	64	9

Reports / statements	73	73	64	64	9
Research of suppliers	-	36	-	-	-
Check list of the different departments	69	73	64	27	9
Procedures (room service, mini bar..)	-	-	73	18	9
Service-express	18	27	18	18	9
Eco - use of bed linens	73	-	-	-	-
Environmental protection program	73	73	27	55	9
Records of waste separation	64	82	64	-	-
Waste grease disposal program	-	73	-	-	-
Information of safety	-	45	64	-	-
Procedures for hotel operations	-	-	-	-	-
Programs for guests (animation...)	-	-	-	36	9
	-	-	55	-	-

Source: Author's research results presented in Jankovic, Persic, Zanini-Gavranić, 2012: 121-136

Table 3 presents potential sources and frequency of departmental / functional approach of sustainable information. It can be seen that environmental information and possibility of their economic evaluation is emphasized. It is also suggested that the tools used allow collecting and presenting relevant information about eco-efficiency of different functional groups or departments (accommodation, food and beverage, etc.), which can also be treated as reportable segments and form basis for preparing sustainable reports for internal users. The most commonly used sources of information are questionnaire, budget, checklist, department reports, external sources (agencies, statistic...).

The third part of the "triple bottom line" in sustainable reports of hotel companies present the relationship with the community (social component), and GRI offers the possibility of approach in many different ways. All reports of hotel companies (100%) present information on the employment (number, structure, education, training and reward system, etc.) as well as health and safety at work (number of accidents and sickness caused by working conditions, etc.). This is followed by the information on investments in the community and on improvements in relations with suppliers (67%). Some reports present information on participation of hotel companies in public (destination) policies and consequences of unfair market competition, corruption and monopolism, as well as on non-compliance with ethical and moral principles. Very little number of reports show information on violations of human rights, as well as their protection, or information related to child labor and discrimination on the basis of age, gender, race or other factors.

The preparation of sustainability reports in investigated hotel companies is not based on manual or any written rules. Their content is defined according to their needs and by using the relevant internal and external data sources. Only a small part of the surveyed hotel companies have clearly defined the basic KPIs as indicators for assessing the achieved level of sustainable development, while the other choice of indicators reflects the ongoing reporting system and management or external user needs. All hotel companies included in this research have placed special emphasis on the market share assessment and customer satisfaction monitoring, and they are also making use of the opportunities of social networks. It can be concluded that generally only facts, without any deeper analysis or causal relationships to possible opportunities are presented. This certainly requires significant improvements in sustainability reporting of hotel companies to be closer to GRI framework requirements.

The main consequence in the process of sustainability reporting is that there is no real obligation to apply certain rules and standards. One of the main reasons for preparing sustainability reports are compliance with regulations and standards and long term business success, followed by the relationship with employees, customers & business partners, new market opportunities and raising quality. The less likely reasons for preparing such reports are the implementation of environmental policies and improving the relationship with stakeholders. Research results of Croatian hotel companies differ significantly from related research results carried out on the global level (KPMG, 2011:17), where particular emphasis on energy efficiency, improving relationship with the environment, reducing the footprint, emissions and pollution as well as enhancing the impact on local communities is made.

In addition, it is necessary to ensure compliance of internal and external sustainability reporting systems in order to provide benefits for both reporting organizations and report users by promoting a standardized approach that potentially minimizes ambiguity and rhetoric messages (Huang, Pepper, Bowrey, 2011: 4). In this context the importance of Global Reporting Initiative (GRI) as sustainability reporting guidelines should be pointed out, especially those of the supplements for the financial service sector, which share the most similarities with the hotel industry, when compared with other sector supplements. If we want to provide some kind of benchmarking between the presented information in sustainability reports from different hotel companies, the content of the reports and reports disclosure should be made according to the GRI framework respectively.

As already mentioned, Croatian hotel companies included in research do not apply GRI frameworks yet and their management only pointed out the links with the “Global Compact” and “CSR Index”, which primarily offer rules for sustainability reporting linked to the external user needs. The research results show that there is a gap between disclosed issues in sustainability reports of Croatian companies which do not provide any possibility to compare the presented data. Therefore, the introduction of internal reporting system by

segments, based on IFRS 8 standards can provide relevant information primarily for internal users, which is also the high quality input into the external sustainable reporting system.

Establishing a sustainability reporting process based on IFRS 8 and USALI standards would ensure the companies to set goals, measure performance and manage change as well as for communicating positive and negative sustainability impacts. Sustainable development reporting can be improved through promotion and comprehensive application of GRI framework with respect to provisions of ISO standard 26000 (Social responsibility). It is very important to organize and promote different types of education for improving reporting system in a way to provide information necessary to assess the achieved level of goals of sustainable development. Significant support in this process can be provided by Croatia HR BCSD (The Croatian Business Council for Sustainable Development), both for their members and wider, to encourage implementation philosophy of sustainable development and following reporting system oriented to internal and external users.

5. CONCLUSION

Despite the fact that the companies are being under pressure that emphasize the principles of sustainable development by their stakeholders, sustainability reporting is not sufficiently present in Croatian companies, and these reports are not sufficiently transparent, nor are presented data enough relevant as a basis for comparison (benchmarking) among similar members of industries. This indicates the need for improving the quality of presented data in sustainable reports for internal and external users, using the tools of responsibility and strategic accounting, in the way similar to the financial reporting system which is based on provisions of International Financial Reporting Standards.

To produce a regular sustainability reporting system, companies are obliged to set up a reporting cycle, which include program of data collection, communication and responses. This means that their sustainability performance is monitored as an ongoing basis. Data can be provided regularly to senior decision makers to shape company strategy and policy all directed towards improving the performance of sustainability. Sustainability reporting is therefore a vital step for managing change in some company, towards a sustainable global economy. Sustainability reporting system helps in achieving the goals which would in the best way create and accomplish balance between long term profitability, social justice and environmental care.

The research on the global level shows that nearly 80% of the world's largest companies issue some type of responsibility report (KPMG, 2008:4). This shows the necessity of creating better conditions (regulations, incentives, promotions, different benefits ...) in order to encourage companies in Croatia for increasing sustainable development reporting as well as benchmarking, to encourage competition in achieving goals of sustainable development. It is also necessary to systematically improve the quality of presented data in sustainability

reports and increase the comparability of disclosed information. Companies that already have introduced sustainability reporting system based on GRI framework can additionally establish internal sustainability reporting system by segments, based on IFRS 8 and USALI standards.

Sustainability reporting system leads to some benefits for internal and external users. It provides understanding of risks and opportunities as a result of implementation of sustainable development policy, as well as helping to promptly detected and avoid some environmental, social and governance failures. This information is necessary in the preparation of sustainable strategy and in evaluating achieved results, whether and to what extent companies follow the principles of sustainable development. With the establishment of sustainable KPIs it is possible to evaluate financial and non-financial performance systematically, so as to streamlining processes, reducing costs, improving efficiency.

Creating standardized reports opens possibility for comparison (benchmarking), and evaluate sustainability performance in accordance with respect to laws, norms, codes, standards and voluntary initiatives (internally, between companies and industries sectors). This undoubtedly leads to improving reputation of some companies as motives for increasing brand loyalty and to enabling external stakeholders to understand company's true value. All this certainly leads to business and financial success of those companies which base their activities on the principles of sustainable development.

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THE ANALYSIS OF THEORETICAL APPROACHES FOR CALCULATING TURNOVER RATIOS

JEL classification: M41, M49

Abstract

The methods of financial analysis are widely used to estimate a company's financial position and results of business activities. Studying scientific literature of the theoretical guidelines for the financial statement analysis we can find different approaches. The aim of the research is to study methods of turnover financial ratios calculations and basing on the empirical research findings to develop the recommendations for improvement the methods for it. The authors of this paper are studying theoretically different scientist`s findings for using book value or average value of balance sheet analyzing such important ratios as turnover of companies. For the empirical research the data from annual statements of Latvian companies of manufacturing and trade branches are used. In the research the authors have applied quantitative and qualitative methods of economics such as the mathematical and the statistical methods, the ratio analysis, the graphical method, the logically – constructive methods. At the end of the research the authors give the summary of general conclusions and findings.

Key words: accounting, analysis, methods, turnover

1. INTRODUCTION

Anyone making economic decisions for company development needs the information about the financial position, performance and changes in financial position of it. Those information are provided by accounting.

So we often can hear that accounting is the language of business. It is the vehicle for communicating financial information about company to many different groups of users of accounting data – creditors, investors, suppliers, managers, owners, government agencies and others analysts. Every user needs different financial information of a company, but they all use methods of financial analysis. Financial analysis means different things to practitioners across a wide range of industries, disciplines, regulatory authorities and standard setting bodies (Brammertz and etc., 2009).

To decide what ratios to analyze an analyst must the first decide what kind of financial information he needs to know about a company. The main question for assessing the performance of companies is to indicate the efficiency of usage of the assets in producing cash flow and profits. Studying scientific literature of the theoretical guidelines for the financial analysis we can find different approaches. Calculating financial ratio of assets turnover, some scientists have recommended to use average value, others –book value of assets. Using the different approaches for calculation financial ratios it is important to know, if there are significant differences between the calculated results.

The aim of the research is to study methods of turnover financial ratios calculations and basing on the empirical research findings to develop the recommendations for improvement the methods for it. The methodological bases are scientific and training literature, statistical data and accessible Annual reports of manufacturing and trade branches of Latvian companies.

The research period for data of annual statements is from 2008 till 2011, theoretical approaches have been investigated since 1997. In the research the quantitative and qualitative methods of economics such as the mathematical and the statistical methods, the ratio analysis, the graphical method, the logically – constructive methods have been applied.

2. THEORETICAL APPROACHES OF CALCULATION TURNOVER RATIOS

The usefulness of accounting information in the decision – making processes of investors and creditors has been the subject of much academic research over the last 35 years (White and etc.,2003). When examining a balance sheet, an analyst will draw company-specific conclusions about the size, nature, and value of the assets listed, looking at relative proportions, and judging whether the company has a viable asset base. In a more overall sense, a few ratios are used to judge broad trends in resource utilization. Such ratios essentially involve

turnover relationships and express, in various forms, the relative amount of capital used to support the volume of business transacted (Helfert, 1997).

Asset turnover is the one of driver of a company's return on equity. Since firms invest considerable resources in their assets, using them productively is critical to overall profitability. In some industries, a key barrier to entry is the large amount of assets required to produce revenue (Brag, 2007).

A detailed analysis of asset turnover allows the analyst to evaluate the effectiveness of a firm's investment management. Accounts receivable turnover, inventory turnover and accounts payable turnover allow the analyst to examine how productively the three principal components of assets are being used. Another area of investment management concerns the utilization of a firm's long-term assets. Property, plant and equipment (PP&E) is the most important long-term asset in a firm's balance sheet.

Catherina Gowthorpe notes that, where possible, the average assets figure over the year should be used. This is likely to give more consistent and representative result. External users of annual reports do not have access to monthly information with which to calculate an average, but opening and closing figures often give a reasonable approximation (Gowthorpe, 2008).

The formulas of calculating assets turnover recommended by K.G.Palepy, P.M.Healy and V.L.Bernard are following (Palepy and etc., 2004):

Accounts receivable turnover = Sales/ Accounts receivable

(1)

Inventory turnover = Costs of goods sold/ Inventory

(2)

Accounts payable turnover = Costs of goods sold / Accounts payable

(3)

PP&E turnover = Sales/Net property, plant, and equipment

(4)

The same approaches we can find in R.C.Higgins work (Higgins,2001).

However, G.White, A.Sondhi D.Fried and G.Friedlob have a different approach for calculation assets turnover. They notes, that the analyst's primary focus should be the relationships indicated by the ratios, not the details of their calculation and we can suggest many adjustments to and modifications of these basic ratios. When one of the components of the ratio comes from the balance sheet and the other from the income statement, the balance sheet component is an average of the beginning and ending balances. In practise, some analysts use beginning or ending balances for such mixed ratios.

The formulas calculating assets turnover recommended by G.White A.Sondhi. D. Fried and G.Friedlob, are following (White and etc.,2003):

Inventory turnover = Costs of goods sold/Average Inventory
(5)

Receivable turnover = Sales/ Average trade Receivable
(6)

Payable Turnover =Purchases (Costs of goods sold + the change in inventory) /
Average Accounts Payable
(7)

Fixed Asset Turnover = Sales/ Average Fixed Asset
(8)

Total Asset Turnover = Sales/ Average Total Asset
(9)

From Erich Helfert`s point of view, the most commonly used ratio relate net sales to gross assets, or net sales to net assets. The measure indicates the size of the recorded asset commitment required to support a particular level of sales or, conversely, the sales dollars generated by each dollar of assets. The turnover ratios serves as one of several clues that, in combination, can indicate favourable or unfavourable performance. The assets turnover calculation is following (Helfert,2001):

Sales to assets = Net sales/ Gross assets
(10)

Sales to net assets = Net sales/ Net assets¹
(11)

The difference between the two sets of calculations lies in the choice of the assets total, that is whether to use gross assets or net assets. Using net assets eliminates current liabilities from ratio. Here the assumption is that current liabilities, which are mostly operational (accounts payable, current taxes due, current repayments of short-term debt, and accrued wages and other obligations) are available to the business as a matter of course. Therefore, the amount of assets employed in the business is effectively reduced by these ongoing operational credit relationships. This concept is especially important for trading firms, where the size of accounts payable owed suppliers is quite significant in the total balance sheet (Helfert,1997).

Among the assets of a company the inventories and accounts receivable are usually given special attention. The ratios used to analyze them attempt to express the relative effectiveness with which inventories and receivables are managed. The amounts as stated on the balance sheet are generally related to the single best indicator of activity levels, such as sales or cost of sales (cost of goods sold), on the assumption that a reasonably close relationship exists between assets and the indicator. In assessing the effectiveness of a companies inventory

¹ Net assets = total assets less current liabilities, representing the capitalization of the business

management, it's more common to use the number of times inventory has turned over during the period of analysis using the following formulas (Helfert, 1997):

$$\text{Inventory turnover} = \text{Net sales} / \text{Average inventory} \quad (12)$$

$$\text{Inventory turnover} = \text{Costs of sales} / \text{Average inventory} \quad (13)$$

Normally average inventories are used to make this calculation. At times, it may be desirable to use only ending inventories, especially in the case of rapidly growing firms where inventories are being built up to support steeply rising sales. When dealing with any manufacturing company, we also must be particularly aware of the problem of accounting measurements – so often encountered when using other analytical methods – because the stated value of inventories can be seriously affected by the specific cost accounting system employed (Helfert, 2001).

The analysis of accounts receivable is based on net sales and calculation is following (Helfert, 1997):

$$\text{Receivable turnover} = \text{Net sales} / \text{Accounts receivable} \quad (14)$$

The relation of accounts receivable to sales is governed by credit policies and collection methods.

Comparing the above mentioned scientists' approaches for computing assets turnover ratios, the authors of this paper concludes that there is some scientists who prefers assets book value at the end of the annual year, while the other recognizes average value of assets. Different terminology formulating types of assets, sales and costs for calculating ratios are used, too (Table 1).

Table 1

Summary of scientists' approaches for computing assets turnover ratios

Types of assets, sales and costs	K.G.Palepy P.M. Healy V.L. Bernard, R.C.Higgins	G.White, A.Sondhi, D.Fried, G.Friedlob	E.A.Helfert
Accounts receivable	X		X
Average trade Receivable		X	
Accounts Payable	X		
Average Accounts Payable		X	

Average Inventory		X	X
Inventory	X		X
Costs of goods sold	X	X	
Costs of goods sold + the change in inventory		X	
Costs of sales			X
Net sales			X
Sales	X	X	
Net property, plant, and equipment	X		
Average Fixed Asset		X	
Average Total Asset		X	
Gross assets			X
Net assets			X

Source: Table made by the authors of this paper

To get the answer to the question - if significant differences between the calculated results using different approaches exist, the authors of this paper will study in the next chapter.

3. DATA COLLECTION FOR EMPIRICAL RESEARCH

For empirical study the financial statements of 10 Latvian companies, whose business orientation is manufacturing and trade, were used. Assets turnover ratios were calculated from Balance sheet and Income statement in the period of 2008 – 2011 of each company. Calculation average values of financial statements are made based on values at the end of the current year. Overall, were 40 ratios (the four ratio of each company) calculated using average value of assets and 40 ratios (the four ratio of each company) - using book value of assets. The same approaches for calculation receivables and inventory turnover were used.

Taking into account, that any business, large or small, can be described as a system of financial relationships, in the study an accidental random set of companies was used. The total assets book value of the analysed companies had from 133.7 to 1.0 million EUR.

4. ANALYSIS OF EMPIRICAL RESULTS

To achieve the aim of the current research, turnover ratios of assets, inventories and receivables were used. The formulas No 9 and No 10 for asset turnover were used, formulas No 2 and No 13 for the inventory turnover and formulas No 6 and No 14 for receivables turnover were used.

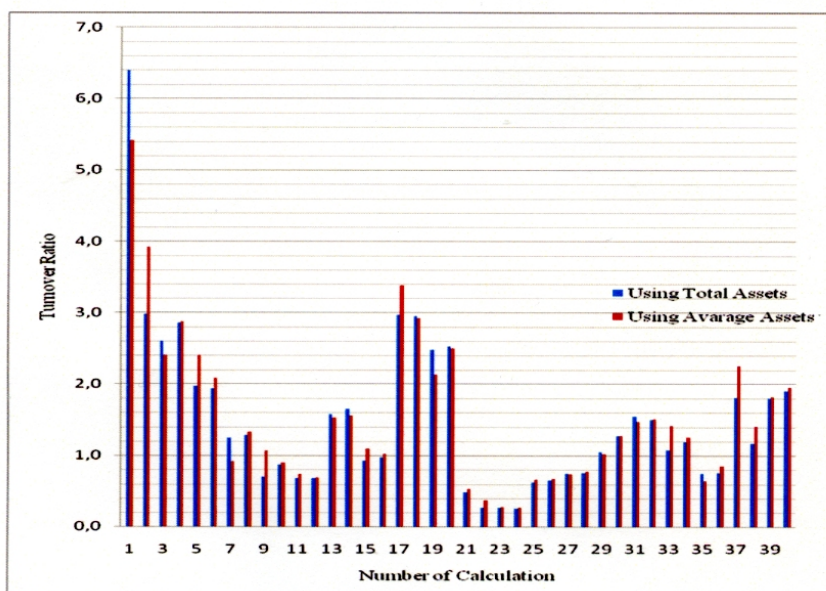


Figure 1 Comparisons of Assets Turnover Ratios

Source: Figure made by the authors of this paper

The results of calculation of assets turnover (Figure 1) shows, the greatest differences between ratios using total assets and average assets are observed at calculation No 1, where assets turnover ratio is 6,4 and average assets turnover - 5,4 and No 2, where assets turnover ratio- 3,0 and average assets turnover - 3,9.

Analysing the tendencies of those calculations of the last four years, the authors conclude, that using both methods the changes of assets turnover ratio shows the same tendencies. Other numbers of calculations showed the same tendencies of changes of ratios and differences of their turnover ratios are unimportant for estimating financial situation of a company, therefore the authors came to the conclusion, that there are no significant differences between used approaches computing companies assets turnover ratios.

The next object of calculations was turnover of accounts receivable.

For most companies selling on credit, accounts and notes receivable are an important part of working capital (Bernstein, 2000).

Results of calculation of receivables turnover (Figure 2) shows, the greatest differences between ratios using total receivables and average receivables is observed at calculation No 1, No 2 and No 6. At calculation Nr 1 total receivables turnover ratio are 97,6 and average receivables turnover - 124,9.

Both calculated ratio are very high, transmitting ratio to receivables collection period – receivables collection days are 3,7 and 2,9, that means company does not practise selling on credit, so that receivables turnover ratio for assessing financial situation is not necessary. Estimating calculations No 6, where total receivables turnover ratio is 32,6 and average receivables turnover - 18,7, the authors conclude, that, the company has probably changed the policies of selling on credit, because the calculations results of the following year of this company showed fewer differences between total and average receivables ratio – 21,9 and 15,5 and last year it was 23.4 and 23.8.

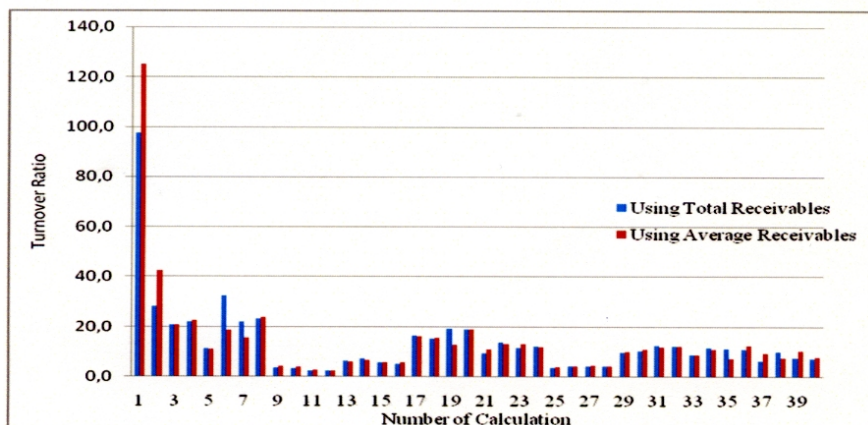


Figure 2 Comparisons of Receivables Turnover Ratios

Source: Figure made by the authors of this paper

To estimate a more objective result of calculation it is necessary to test annex of annual report of a company, where accounting policy of the company is described. That information for the authors of this paper was not available.

Analysing the tendencies of those calculations results of the last four years, the authors conclude, that they are the same - turnover ratios shows the same tendencies of changes of ratios. Other numbers of calculations showed the same tendencies of changes of ratios and differences of their turnover ratios are unimportant for estimating financial situation of a company, therefore the authors came to the conclusion, that there are no significant differences between used approaches computing companies receivables turnover ratios.

Inventory turnover ratio is important for every company which sells his production. The inventory turnover ratio indicates the liquidity of inventories. The higher the ratio, the more quickly inventory is being sold (Brag, 2007). Inventories are investments made for purpose of obtaining a return. This return is

derived from the expected profits resulting from sales to customers. In most companies, a certain level of inventory must be kept (Bernstein, 2000).

Analysing inventory turnover ratios (Figure 3), the authors 4 calculations of the one company cut out of the study because its inventory turnover ratios were too high – more than 400 times. Testing the annex of the annual reports, the authors got information, that the company has a specific business features – manufacturing depends on customers orders and the production cycle is very short, so the company no significant value of inventory at the end of the year. The results of the calculation of inventory turnover (Figure 3) shows, the greatest differences between ratios are observed at calculation No7, No 13 No 31 and No 35. At calculation No 13 total inventory turnover ratio are 12,7 and average inventory turnover - 16,1, calculations Nr 35 - total inventory turnover ratio is 14,4 and average inventory turnover is 17,7. Those two examples show, that bigger turnover ratio are average inventory turnover. The opposite situation are observed at calculation No 7 and No 31. There are bigger inventory turnover using total inventory.

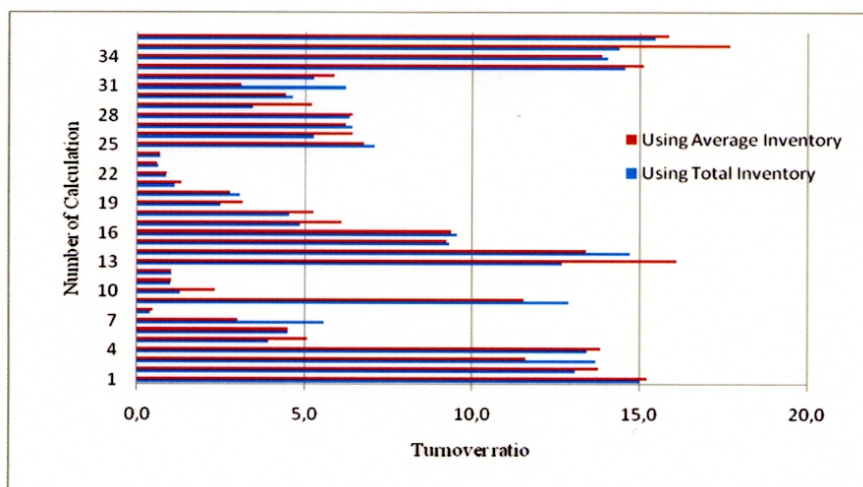


Figure 3 Comparisons of Inventory Turnover Ratios

Source: Figure made by the authors of this paper

Analysing the tendencies of those calculations results the authors conclude - inventory turnover ratios, using different approaches of calculations, shows the same tendencies of changes of ratios. Other numbers of calculations showed that there are no significant differences between results, therefore allows concludes, that there are no significant differences between used approaches computing inventory turnover ratios of companies.

5. CONCLUSIONS

Estimating the results of the current research, authors has got to the following main conclusions: Studying scientific literature of the theoretical guidelines for the turnover calculations the authors of this paper found different approaches - some scientists prefer assets book value at the end of an annual year, while the others scientists recognize average value of assets.

Different terminology formulating types of assets, sales and costs for calculating ratios have used. Used terminology in different scientists works are connected with Britain and American language dialects and it historical development. So each analyst should be careful using the theoretical guidelines for calculation turnover ratios.

Analysing the total assets turnover ratio and their tendencies of changes which were calculated using average value and book value of assets, the authors concludes, that using both approaches the changes of assets turnover ratio shows the same tendencies. Therefore the authors came to the conclusion, that there are no significant differences between used approaches computing assets turnover ratios of companies.

The same result of research showed that there are no significant differences between the used approaches –book or average value computing accounts receivables turnover ratios of companies.

Investigated the results of inventory turnover, the author`s findings are the same as calculating total asset and receivables turnover ratios. Inventory turnover ratios, using different approaches of calculations, showed that no significant differences between used approaches computing inventory turnover ratios of companies.

Basing on the empirical research findings the author`s recommendations for analysts are that calculating turnover ratios for Latvian companies of manufacturing and trade branches, the both approaches –book value or average value are useful for asset, receivables and inventory turnover calculations. The choice between the different approaches of calculations depends on the analyst. The analyst should make his choice before starting calculation for financial statement analysis and the chosen approach for calculating turnover ratios should be applied consistently year by year. Otherwise the calculated results will not comparable.

At the end of current research the authors wants to note, that the same study must continue with other important ratio – profitability of assets and equity.

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**DEMAND DRIVEN GROWTH IN SMALL OPEN,
IMPORT DEPENDABLE ECONOMY**

JEL classification: E2

Abstract

Demand driven growth is rather common approach in many countries in short run. Growth in aggregate demand pushes production to higher level, increasing employment and income. But what is the case in small open economies which are highly import dependable, service oriented and have to import most consumers' goods? We will analyze this issue in case of Montenegro. Economy of Montenegro is small, open and services oriented. National savings is moderate, while import dependency is very high. Agriculture and manufacturing make less than 20% of GDP, which influence high import of both nondurable and durable goods. Financial markets are open and significantly rely on imported capital. Since independence (2006), Montenegro attracted significant amount of foreign investments and financial inflows, transferred through commercial banks into household consumption. Great increase in loans influences high aggregate demand, which contributed significantly to import growth, but compensated with higher financial surplus. GDP growth was achieved through growth in construction, trade and tourism sector. Since global financial crisis, financial inflows dropped, leaving Montenegrin economy to struggle with increased debt (both public and private), unfinished investment project to provide value added and low level of domestic production leading to high trade deficit. Investments failed to increase domestic manufacturing production and at least partially substitute increased import or reduce trade deficit with increased export. Now, Montenegrin economy needs new investments to increase production, but due to low national savings, capital has to be provided from international market, where interest rates are rather high. Future growth can be achieved only if it is driven by investments, as growth in aggregate

demand will more likely lead to higher trade deficit than production growth.

Key words: demand driven growth, investments driven growth, import dependency

1. INTRODUCTION

Among many discussions in macroeconomics, there is one majorly accepted consensus: in long run, country's income (Gross domestic products) depends on the factors of production (capital, labor and technology). GDP grows when the factors of production increase or when technology improves resulting in higher productivity. As Mankiw (2009) said, this is important issue policy makers should incorporate into their policies. Any policy resulting in increase of national saving, efficiency of labor and improvement of national institutions, will lead to higher GDP in long run with greater probability.

In short run, GDP depends on aggregate demand for goods and services (household consumption, government consumption, investment and trade balance-export minus import) due to nominal price stickiness that enables value to differ for significant period of times. Any increase in any particular component of aggregate demand will lead to GDP growth in short run). Policy makers, ever since J.M.Keynes introduced such idea, see government expenditures as good tool to stabilize economy and provide positive growth rates. Increase in government expenditures may encourage investment (through public investment) and/or personal consumption (through higher transfers or wages) and push production to the higher level. Whether it is good approach or not, is not aimed to discuss in this paper. What could be a problem is failure of growing demand to increase domestic production and employment and provide stable path for future growth.

As Becker et al., 2010¹, stated, over the last two decades most central and south-eastern European countries have experimented with unique growth model, combining institutional anchoring to the EU, integration of product markets through trade in goods and services, encouraged capital market mobility and eventually labor mobility. In their study, they concluded that, while most countries followed similar growth model, results were quite different, with imbalances, especially external deficit and the credit boom, much more serious in Balkan and Baltic countries than in central Europe.

In their analysis on prospects for Development in South-East Europe², Astrov and Gligorov emphasized that current accounts are almost invariably and persistently in red, which makes financial inflows necessary.

In more recent study by Astrov, Gligorov et al., (2010)³, stated that growth model in SEE should be redirected, in terms that changed external conditions after crisis and internal behavior responses to the crisis (more difficult financing

¹ Becker, T., Daianu, D., Darvas, Z., et al, (2010): Whither growth in central and eastern Europe? Policy lessons for an integrated Europe, WIIW and Bruegel Blueprint 11

² Astrov, V., Gligorov, V.: Prospects for Development in South-East Europe, wiiw Research paper No.276, April 2001.

³ Astrov, V., Gligorov, V., Havlik, P., et al, (2010): Crisis is over, but problems loom ahead, wiiw Current Analysis and Forecasts No.5, February 2010

conditions, increasing savings rates of household sector, constraint in fiscal spending) will shape the growth paths.

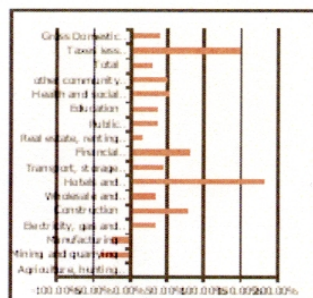
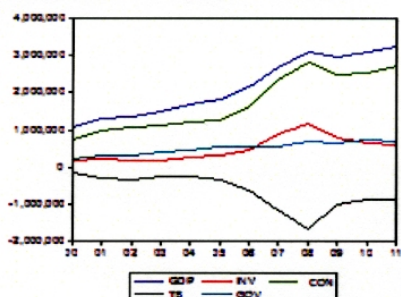
2. ECONOMIC PERFORMANCE IN MONTENEGRO SINCE INDEPENDENCE

Montenegro has gained independence in 2006, and since has started creating economic environments favorable for investment. It is small, open economy, with stable monetary system due to eurization (introduced DM as sole official currency since 2000, following with EURO).

Economy has been service oriented for last decades, with manufacturing and agriculture making in average 20% of GDP. The most significant service sectors are trade, transportation and tourism.

Since 2006, strategic vision of Montenegrin development has been to, through investment growth, provide output growth and stable positive growth rates. Due to low national savings, foreign capital has been seen as key financial source to finance investment. Foreign direct investments were important not only because they will provide necessary capital, but new technologies, knowhow and management systems. Therefore, financial market has been open since, for any type of financial flows, including borrowing to finance all types of spending (consumption or investment).

Since 2006, most variables had started growing rather fast: GDP, Investment and personal consumption. In 2009, growth was interrupted due to negative effects from international markets, but has started again in 2010, although modestly.



Source: Based on data from Monstat (Statistical Agency of Montenegro), www.monstat.org

But the biggest issue is that growth rates are dominantly driven by household and government consumption, while investment failed to increase material production significantly which resulted in high trade deficit.

In production, progress was seen in electricity generation and in service area in hotels and restaurants, while all other generators of growth were services as trade and transportation.

As shown in graph 2, analyzing real output growth by economic activities, three of them declined in twelve year period: manufacturing, mining and agriculture. Those three are the most important sectors in terms of domestic production of goods. What influenced overall real GDP growth in Montenegro was real growth in tourism (hotels and restaurants), trade, financial intermediation and transport. Construction was also important component.

2.1. Data

Analyzing economic performance in Montenegro is limited with short existence of data time series (data used in this paper are presented in annex), as it is young country (independent since 2006), with statistics produced in accordance with National Accounts system 2003 standards since 2000. Also, additional obstacle is that most time series were produced on yearly basis, which limits number of observation.

Despite all obstacles, we proceeded with analysis using available data from official sources, knowing that results will be of limited use, especially for reliable forecast. Results we provided may be use as good approximation of relations and dependencies in economy, but should be treated as work in progress, aiming to provide better conclusion once inputs are improved.

For the purpose of analysis presented below, following data were used: Gross Domestic Product in current prices, Personal Consumption, Government consumption, Gross and Net Investment, Trade balance, Total exports of goods, Total import of goods and Loans to households. Disposable income was estimated using following definition:

$$Y_{disp} = GDP - T + T_r + NFI + NT$$

Where: Y_{disp} -disposable income; GDP – Gross domestic product in current prices, T-tax revenues, T_r -transfers to households, NFI – Net factor income, NT – net transfers from abroad.

2.2. Aggregate demand in Montenegro

Analysis of trends in components of demand in Montenegro has shown consistent growth (excluding 2009, when due to global crisis, all components were declining).

Comparing trends in each individual component and total GDP, we observed high correlation, but the highest in relation to household consumption and GDP.

Table 1: Correlation between BDP and various components (2000-2011)

	GDP	GOV	INV	HOUS	Trade Bal.
GDP	1.000000	0.955884	0.867430	0.991619	-0.859827
GOV	0.955884	1.000000	0.780955	0.921240	-0.770110
INV	0.867430	0.780955	1.000000	0.907988	-0.990327
HOUS	0.991619	0.921240	0.907988	1.000000	-0.908378
Trade bal.	-0.859827	-0.770110	-0.990327	-0.908378	1.000000

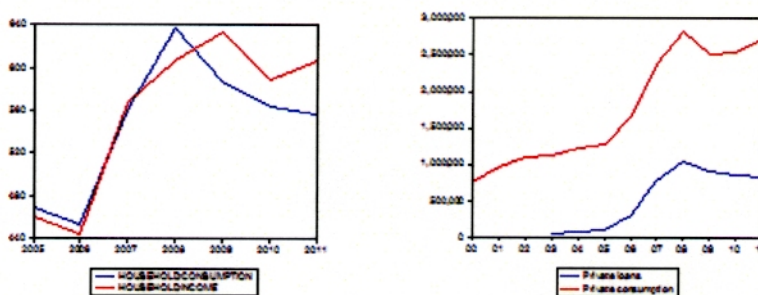
What is, in our opinion, the most important element to notice is very high negative correlation coefficient between GDP and international trade balance. This leads to conclusion that economy is extremely import dependant and that the most of multiplication effects were transferred abroad. That is why we consider important to estimate several functions in order to analyze growth potential under currents trends and structure in the economy.

In order to analyze impact from demand components to GDP, in first iteration we estimated three demand component functions: Consumption function, Tax function and Import function.

2.3. Consumption function

Household consumption in Montenegro has grown almost constantly (except in 2009), following very similar trend to GDP.

What is very important is the fact that, until 2009, consumption exceeded disposable income, leading to negative savings. This was influenced by increased supply of loans offered by commercial banks and other financial institutions, with favorable interest rates. General optimism and affordable sources to finance lead to growth in expenditures, but in personal debt as well, which influenced drop in consumption in 2009.



Source: Based on data from Monstat (Statistical Agency of Montenegro), www.monstat.org

Consumption function was defined as dependable on disposable income (table 2.):

$$C = c_6 + c_7 Y_{disp}, \quad (1)$$

Where C – consumption, c_6 -autonomous consumption, c_7 – marginal propensity to consume.

Table 2: Estimated Consumption function for Montenegro

Dependent Variable: C
 Method: Least Squares
 Sample: 2005 2011
 Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C_6	274361.3	395663.0	0.693422	0.5189
Y_{disp}	0.829064	0.159496	5.198035	0.0035
R-squared	0.843846	Mean dependent var		2270795.
Adjusted R-squared	0.812615	S.D. dependent var		580987.2
S.E. of regression	251497.9	Akaike info criterion		27.94321
Sum squared resid	3.16E+11	Schwarz criterion		27.92776
Log likelihood	-95.80125	Hannan-Quinn criter.		27.75220
F-statistic	27.01957	Durbin-Watson stat		1.018929
Prob(F-statistic)	0.003473			

Although, as we mention previously, some results are not fully statistically significant, presented results may be used to get clearer picture on economic structure and in later steps give approximation of some indicators relevant for analysis. In this case, we will use marginal propensity to consume, as input to estimate effects of investment in small open import dependable economy.

2.4. Tax function

Tax function (table 3.), was estimated using similar approach as in case on personal consumption.

Function was defines as:

$$T = T_a + tY \quad (2)$$

Where T – total taxes, T_a – Autonomous taxes, t – marginal tax rate, Y - GDP

Table 3: Estimated tax function for Montenegro

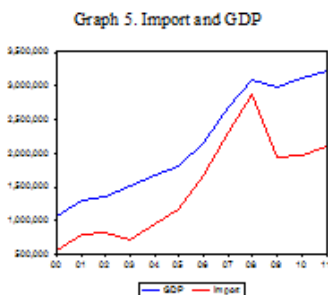
Dependent Variable: T
Method: Least Squares
Date: 05/16/13 Time: 12:35
Sample: 2005 2011
Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
T _a	466795.5	112265.8	4.157951	0.0088
Y	0.085130	0.040572	2.098251	0.0900
R-squared	0.468235	Mean dependent var		698457.3
Adjusted R-squared	0.361882	S.D. dependent var		67380.09
S.E. of regression	53824.74	Akaike info criterion		24.85981
Sum squared resid	1.45E+10	Schwarz criterion		24.84436
Log likelihood	-85.00934	Hannan-Quinn criter.		24.66880
F-statistic	4.402656	Durbin-Watson stat		1.486141
Prob(F-statistic)	0.089953			

Marginal tax rate is moderately low, which is result of intentions to provide favorable tax system in Montenegro in order to attract investment and accelerate production and income growth.

2.5. Import function

Import is one more variable highly correlated with income and consumption, due to low level of production of goods in Montenegro, both, for final and intermediary consumption.



Source: Based on data from Monstat (Statistical Agency of Montenegro), www.monstat.org
Based on the same set of data as for consumption, we estimated import function:

$$M = M_a + mY \quad (3)$$

With M – total import, M_a – autonomous import, Y – GDP.

Table 4: Estimated Import function for Montenegro

Dependent Variable: Import

Method: Least Squares

Sample: 2005 2011

Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
M_a	44712.39	815117.8	0.054854	0.9584
GDP	0.720766	0.294576	2.446796	0.0582
R-squared	0.544909	Mean dependent var		2006120.
Adjusted R-squared	0.453891	S.D. dependent var		528828.9
S.E. of regression	390800.4	Akaike info criterion		28.82474
Sum squared resid	7.64E+11	Schwarz criterion		28.80928
Log likelihood	-98.88658	Hannan-Quinn criter.		28.63373
F-statistic	5.986810	Durbin-Watson stat		1.249020
Prob(F-statistic)	0.058165			

Marginal propensity to import of 0.72 is very high but shows strong import dependency of Montenegro. As explained before, due to limited goods production, import of final goods is very high, as shown in graph below.

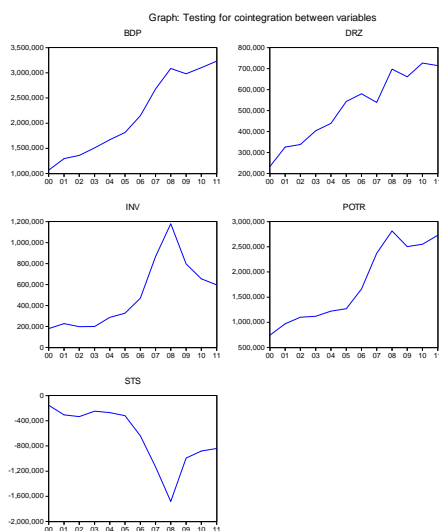
2.6. Model

Final step in our analysis is to estimate model reflecting equilibrium in the market for goods and services in open economy, as follows:

$$GDP = c + C + I + G + E - M \quad (6)$$

$$C = c_6 + c_7 Y_{disp}, \quad (1)$$

Prior to estimating the model, we verified whether time series are stationary or not, and due to short time series, individual statistics are not stationary, which means that estimated parameters are biased. But, we analyzed combined trend for each individual variable, and saw very similar path (as shown in graph below). We also tested cointegration by using Johansen cointegration test and received positive results. This means that estimated model can be used as good approximation, but not as fully reliable source for decision making or forecast.



Source: Based on data from Monstat (Statistical Agency of Montenegro), www.monstat.org

Giving to import the status of exogenous variable is not quite good approach, but provided better statistical results.

Table 5: Equilibrium in the markets for goods and services model for Montenegro

Estimation Method: Least Squares
 Sample: 2005 2011
 Included observations: 7
 Total system (balanced) observations 14

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	107771.7	107670.0	1.000945	0.3502
C(2)	0.978844	0.043450	22.52823	0.0000
C(3)	0.964337	0.225361	4.279068	0.0037
C(4)	0.395904	0.276902	1.429761	0.1959
C(5)	0.540487	0.184153	2.934997	0.0219
C(6)	274361.3	395663.0	0.693422	0.5104
C(7)	0.829064	0.159496	5.198035	0.0013
Determinant residual covariance	6.67E+18			

Equation: $GDP = C(1) + C(2)*C + C(3)*G + C(4)*I + C(5)*STS$

Observations: 7

R-squared	0.999406	Mean dependent var	2721280.
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Adjusted R-squared	0.998219	S.D. dependent var	541604.9
S.E. of regression	22858.00	Sum squared resid	1.04E+09
Durbin-Watson stat	2.334389		
Equation: $C=C(6)+C(7)*Y_{disp}$			
Observations: 7			
R-squared	0.843846	Mean dependent var	2270795.
Adjusted R-squared	0.812615	S.D. dependent var	580987.2
S.E. of regression	251497.9	Sum squared resid	3.16E+11
Durbin-Watson stat	1.018929		

While statistical significance is questionable in case of some estimated parameters (constant particularly), we accepted results as fair approximation economic relations.

As we can see for estimated results, growth in consumption will lead strongly to GDP growth, while effects from investment and trade balance are lower than desired. This is probably due to high import dependency, in which case benefits of investment and/or export will probably go to international economic partners Montenegro imports goods from.

If we apply estimated parameters (marginal propensity to consume, marginal tax rate and marginal propensity to import) to the theoretical foundation of model of equilibrium in the market for goods and services, defined as (Vukotic, 2001):

$$Y = C + G + I + E - M \quad (7)$$

$$C = c_6 + c_7 Y_{disp}, \quad (1)$$

$$T = T_a + tY \quad (2)$$

$$Y_{disp} = Y - T + T_r \quad (8)$$

$$M = M_a + mY \quad (3)$$

Multiplier define impact from one unit change in any exogenous variable (G, I, E), would be:

$$p = \frac{1}{1 - c_7(1 - t) + m} = 1.03$$

Such low value is result of high marginal propensity to import, which diminish positive effects of investment and/or export for income growth.

3. IMPLICATION FOR FURTHER ECONOMIC PERSPECTIVES

Analysis of economic behavior on goods and services market in Montenegro has shown several characteristics:

1. Household and government consumption were dominant element of aggregate demand:
2. Investment were growing, although slowly compared to personal and government consumption, but provided real growth dominantly in service sector, which influenced rapid growth of import of goods

If such performance continues in the future, due to exporting multiplying effects abroad, growth will likely to be slower than possible. This is why economy should straightening domestic production of goods, and those who define policies should be aware that with such high import and finance dependency, long term growth rates will be less optimistic and more difficult to be predictable.

In such manner, domestic production, entrepreneurial activities, business climate favorable to investment, should be supported. Growth should be more investment then demand driven.

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STATISTICAL DATA

Table 6: Macroeconomic indicators for Montenegro (in 000 euro)

year	GDP	Gov.cons	Foreign transfers	Gross inv	Private loans	Net investment	Net factor income	Household consumption	Trade balance	Tax revenues
2000	1065699.	233759.0	NA	179821.0	NA	134433.0	NA	745691.0	152344.0	NA
2001	1295110.	325988.0	NA	226683.0	NA	181483.0	NA	970764.0	305160.0	NA
2002	1360353.	338195.0	NA	198916.0	NA	134847.0	NA	1100461.	333520.0	NA
2003	1510128.	404181.0	NA	200830.0	49959.00	158313.0	NA	1120474.	247297.0	NA
2004	1669783.	439238.0	NA	286072.0	74393.00	224722.0	NA	1221101.	268260.0	NA
2005	1814994.	543420.0	42000.00	326329.0	104316.0	280278.0	146555.0	1267951.	318112.0	616593.0
2006	2148998.	580054.0	49880.00	469811.0	311175.0	394585.0	90207.00	1660948.	638815.0	644298.0
2007	2680467.	539340.0	44750.00	867109.0	794104.0	537926.0	59379.00	2368961.	1133986.	708020.0
2008	3085621.	698103.0	346540.0	1180216.	1037563.	697279.0	73060.00	2814821.	1682267.	827970.0
2009	2980967.	661430.0	412470.0	797623.0	919313.0	588617.0	85377.00	2503696.	992637.0	712440.0
2010	3103855.	727215.0	423150.0	655139.0	863591.0	543886.0	114408.0	2550717.	881549.0	675800.0
2011	3234060.	714670.0	454760.0	596453.0	833730.0	406558.0	120000.0	2728471.	840799.0	704080.0

Source: Official statistical agency for Montenegro, Central bank of Montenegro

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ECONOMETRIC ESTIMATION OF THE DETERMINANTS AND IMPACT OF REMITTANCES ON THE MACEDONIAN ECONOMY

JEL classification: C22, F29, J61, O11, O24

Abstract

Although Macedonia is among the top emigration countries in the world, and in spite of the fact that private transfers from abroad have covered more than 50% of the trade deficit in the last ten years, relatively little is known about the determinants of the remittances and their impact on the macroeconomic stability of the Macedonian economy. The purpose of our paper is to offer an econometric estimation of the determinants of remittances to Macedonia and to investigate whether remittances sent to Macedonia have a stabilizing or destabilizing effect on the Macedonian economy, especially in time of financial shocks. To achieve this objective, we estimate a vector autoregressive (VAR) model using the available monthly data on migrant workers' remittances as a dependent variable and industrial output, gross wages, unemployment rate, consumer price indices, trade deficit, total imports and loans to private sector as independent variables in a long period (January 2005 - December 2012). We find evidence that remittances sent to Macedonia have a procyclical character meaning that they act as a boost to economic activity in times of economic upturns, and as a destabilizing factor to the Macedonian economy in times of economic downturns.

Keywords: remittances, migration, vector autoregressive model

1. INTRODUCTION

Macedonia has a long history of emigration and is among the top emigration countries in the world, with almost 22% of the total population emigrating to other countries in the world (World Bank, 2010). The top five countries where Macedonia citizens usually emigrate are Australia, Germany, USA, Switzerland and Italy (see Figure 1).

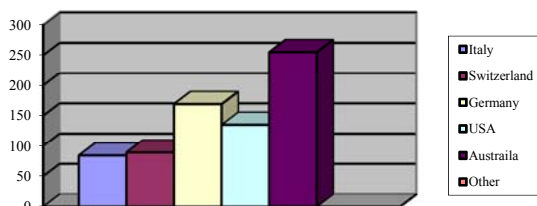


Figure 1: Emigrated citizens of the Republic of Macedonia by countries in 2011

Source: State statistical office of the Republic of Macedonia, Statistical review: Population and social statistics, Migrations, 2011, pp. 86-87.

With such a high proportion of emigrant population relative to the total population of the country, remittances sent by migrant workers have become crucial to maintaining the macroeconomic stability of the Macedonian economy. Adding to the importance of remittances at a macro level, remittances are a significant source of external funding for many households, particularly in times of economic hardships.

However, relatively little is known about the determinants of the remittance inflows to Macedonia and their impact on the macroeconomic stability of the country.

The purpose of our paper is to offer an econometric estimation of the macroeconomic determinants of remittances to Macedonia and to investigate whether remittances sent to Macedonia have a stabilizing or destabilizing effect on the Macedonian economy, especially in time of financial shocks, such as the latest global economic and financial crisis 2008/2009.

To achieve this objective, we estimate a vector error correction (VEC) model using the available monthly data from the National Bank of the Republic of Macedonia and the State Statistical Office on migrant workers' remittances per capita as a dependent variable and industrial production index, total average monthly gross wage paid in US Dollars, unemployment rate, consumer price index, trade deficit, total imports, trade deficit and totals loans extended to private sector as independent variables for a long period, starting from January 2005

until December 2012 (96 observations), which makes the obtained results reliable.

2. SOME FACTS AND TRENDS

The state and trend of migrant workers' remittance inflows to Macedonia is broadly in line with the trend observed in global remittance flows and the trend of remittance inflows to developing countries.

Migrant workers' remittances inflows to Macedonia have been constantly growing in the period 2000-2011 (Figure 2) averaging 257,99 million US dollars annually. It should be noted that these figures are official figures provided by the National Bank of the Republic of Macedonia. However, the World Bank suggests that remittances sent through informal channels could add at least 50% to the official estimate (World Bank, 2006).

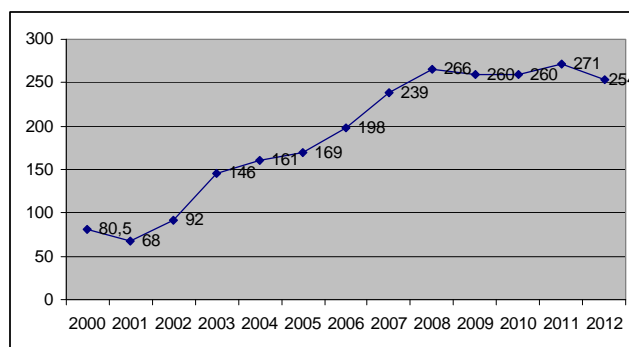


Figure 2: Migrant workers' remittance inflows in Macedonia in million of US dollars, 2000-2012

Source: www.nbrm.gov.mk

This is line with the data on remittances in other EU candidate and potential candidate countries in the region (with exception of Serbia) in the years before, during and after the global financial crisis of 2008 (see Figure 3).

In the same period the inward remittances per capita in Macedonia also have been showing a tendency to increase, from 683 US Dollars in 2007 to 976 US Dollars in 2011 (see Figure 4). From Figure 4 we can see that they are the highest in the group of the EU candidate and potential candidate countries in Western Balkan (976,4 US Dollars per capita) and have achieved the highest rate of growth (43%) among these countries in the period 2007-2011.

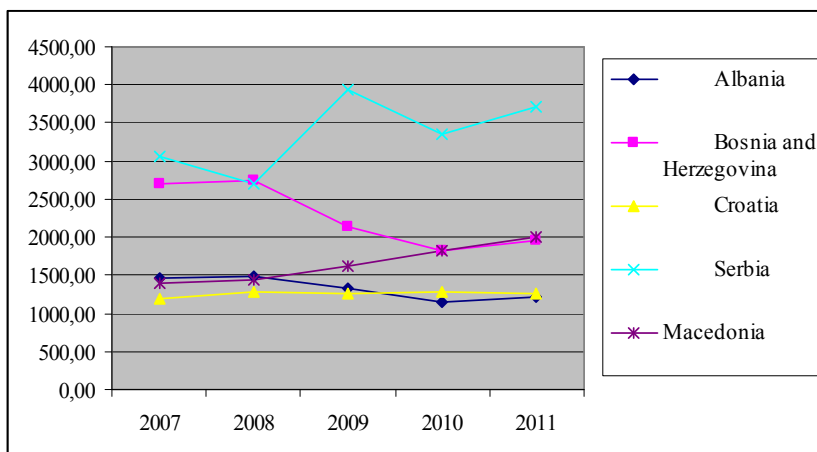


Figure 3: Total remittance inflows[‡], annual, 2007-2011 in millions of US dollars in EU candidate and potential candidate countries

Source: www.nbrm.gov.mk and <http://data.worldbank.org/data-catalog/migration-and-remittances>

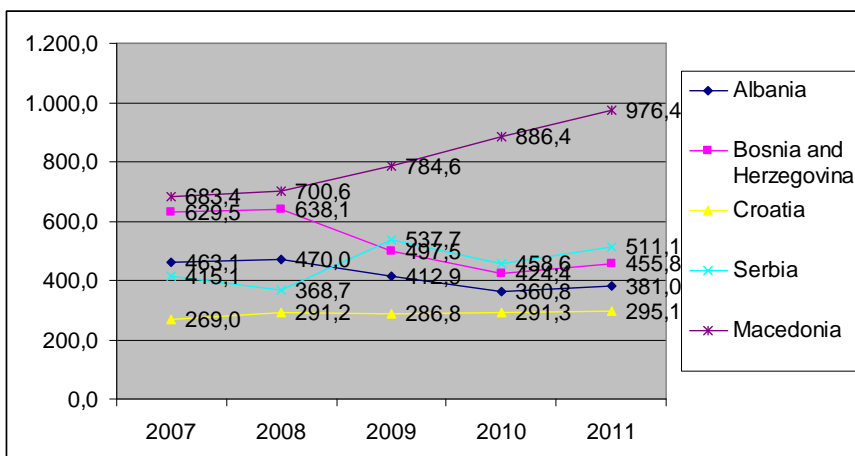


Figure 4: Per capita remittance inflows[§] in US Dollars in selected EU candidate and potential candidate countries, 2007-2011

Source: www.nbrm.gov.mk and <http://data.worldbank.org/data-catalog/migration-and-remittances>

[‡] The World Bank definition of remittances is broader than the one of the National Bank of the Republic of Macedonia and includes workers' remittances, compensation of employees and migrant transfers.

[§] As defined by the World Bank.

Regarding the share of remittance inflows in the total GDP in selected EU candidate and potential candidate countries, 2007-2011, total remittances to Macedonia have participated with 17,5% on average in the total Macedonian GDP and exhibit the highest share in GDP in the Western Balkan countries (see Figure 5).

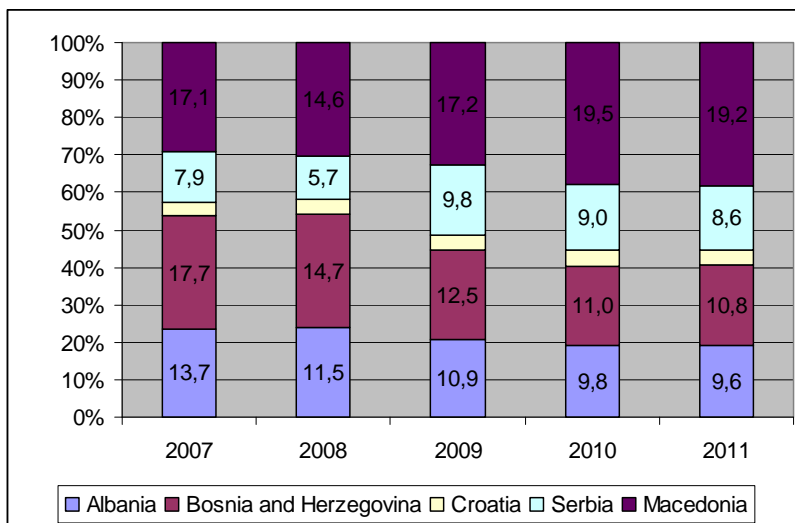


Figure 5: Share of total remittance inflows** in GDP (in %) in selected EU candidate and potential candidate countries, 2007-2011

Source: www.nbrm.gov.mk and <http://data.worldbank.org/data-catalog/migration-and-remittances>

Although at the beginning of the recent global financial and economic crisis, it was thought that the current crisis will not affect Macedonia because it had no exposures to the US real estate market and because of the completely different structure of the Macedonian real estate market, Macedonia, like all other countries in Eastern and South Eastern Europe countries, has also been drawn in the severest crisis since the chronic days of the Great Depression via the trade and the capital flow channel. The global financial crisis started affecting the economy in the fourth quarter of 2008, led by a decline in the output of the metal and textile sectors. The macroeconomic situation deteriorated further in 2009 as industrial production contracted by 7.7 per cent compared with 2008, while foreign trade dropped significantly and inward FDI flows to Macedonia have decreased sharply, falling from 587 million of US Dollar in 2008 to 197 million of US Dollars in 2009, which represents a decline of 66 per cent. In contrast to

** As defined by the World Bank.

the FDI inflows, migrant workers' remittance inflows have decreased by only 2% (see Figure 5) and remained a stable and significant source of external funding for the Macedonian economy.

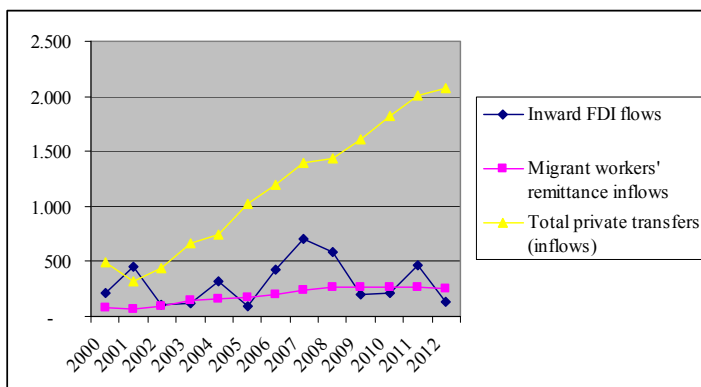


Figure 6: Migrant workers' remittance inflows and total private transfers (inflows)^{††} versus inward foreign direct investment in million of US Dollars in Macedonia, 2000-2012

Source: www.nbrm.gov.mk

Their role in external financing has come to a light even more with the global financial crisis of 2008. Remittances have helped to increase or maintain the foreign exchange reserves at the same level, as well as for decreasing the current account deficits through covering the large trade deficit (see Figure 7).

^{††} The private transfers consist of: remittances, cash exchanged and other transfers of which the most are rents. The source of data is the ITRS. Cash exchanged on the exchange market in accordance with the BPM5 should be classified in the capital and financial account of the balance of payments. However, regarding the fact that the largest part of these assets originates from the residents' receipts from non-residents on the basis of provided goods and services (unrecorded transactions) and transfers received in cash foreign currency, these transactions are recorded as a part of the balance of payments' current account (private transfers).

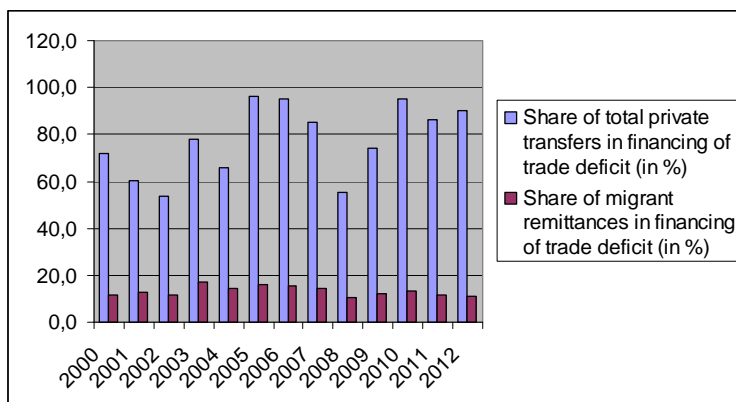


Figure 7: Share of total private transfers and migrant workers' remittances (in %) in financing the Macedonian trade deficit of goods, 2000-2012

Source: www.nbrm.gov.mk

Given the persistent problems in the Macedonia's trade balance and balance of payment, on one hand and the important role that private transfers have played in financing between 80-90 percent of the Macedonian trade deficit, it is of utmost importance to determine the key factors that affect the decision of migrant workers to remit money to their families left behind in Macedonia. In the economic literature as well as in the empirical research it is widely believed that migrants' remittances are motivated by altruism (Rapoport and Docquier, 2005) and as such are expected to move countercyclical to the GDP in the recipient country. Ratha (2003) also corroborates the point that migrants may also increase remittances in times of economic hardship. However, since the decision to remit money is influenced not only by altruism, but by a number of determinants, it is conceivable that remittances may be procyclical or even acyclical with the GDP in some of the recipient countries (Sayan, 2006).

When they are countercyclical with the business cycle of the recipient country, they serve as a macroeconomic stabilizer. On the other hand when they are procyclical they may act as a destabilizing effect by amplifying cyclical fluctuations in GDP (Sayan and Tekin-Koru, 2007).

It is therefore important to find out if remittances sent to Macedonia have a stabilizing or destabilizing effect on the Macedonian economy, especially in time of financial shocks, such as the latest global economic and financial crisis 2008/2009.

3. DATA, MODEL AND FINDINGS

In order to investigate whether the migrant workers' remittances sent to Macedonia (REMITTANCESPC further in text) are countercyclical or procyclical with macroeconomic conditions in the home country (Macedonia), we will estimate a vector error correction (VEC) model (the VEC model is the appropriate model due to the fact that most of the variables are nonstationary and cointegrated) using the available monthly data from the National Bank of the Republic of Macedonia on migrant workers' remittance inflows per capita as a dependent variable and industrial production index, total average monthly gross wage paid in US Dollars, unemployment rate, consumer price index, trade deficit, total imports, trade deficit and total loans extended to private sector as independent variables for a long period, starting from January 2005 until December 2012 (96 observations), which makes the obtained results reliable.

The selection of the explanatory variables is based on the previous empirical studies on the macroeconomic determinants of remittances (Schiopu, I. and Siegfried, N., 2006; Vargas-Silva and Huang, 2005; Schrooten, 2005). These studies usually focus on the number of workers, wage rates and economic situation in host country, economic situation in country of origin, the exchange rates and relative interest rate between the sending and receiving country and political risk and facilities to transfer funds (i.e. institutions).

The monthly index of industrial production (output) (further in text INDINDEX) is taken as a proxy for the state of the economic activity in the migrants' home country. The monthly indices on industrial production for Macedonia are obtained from the State Statistical Office of the Republic of Macedonia. A number of empirical studies (e.g. El - Sakka and McNabb, 1999; De la Brière et al., 2002) suggest that remittances have a negative correlation with the previous month's industrial output. Lower economic activity in periods of shocks, may increase the need for remittances to be sent, which may induce current migrants to send money or cause migration in the first place. This finding can be interpreted as evidence of counter cyclical behaviour of remittances. On the other hand, Aydaş et al. (2004) argue that remittance flows tend to increase following respectively the rise of the GDP per capita and the growth rate of the home country (procyclical behaviour).

Monthly unemployment rate (UNEMP) and monthly gross wages in denars (WAGEDENARS) are taken as proxies for the labour market situation in the home country. The monthly unemployment rates as well as the average monthly gross wages in Macedonia are obtained from the State Statistical Office of the Republic of Macedonia. The higher unemployment rate in the home country can be expected to increase the incentives for migration which may consequently cause increase of remittances. According to Hagen-Zanker and Siegel (2007) "the level of development of the households' community also plays an important role here. While bad economic situation and high unemployment may be a cause for migration, the household's community needs to have a certain

level of development for investment by the household to be effective. Consequently it is possible fewer remittances are sent to underdeveloped countries.”

Lower gross wages in the home country can be expected to increase the incentives to remit money home, and consequently negative sign is expected for this explanatory variable. However, as Cox, Eser and Jimenez (1998) demonstrate, income may have a different effect at different points of the income distribution. The motive may even change at different points of the income distribution.

The impact of inflation (proxied by consumer price index - CPI) on migrant workers remittances is also ambiguous. Higher inflation rates would cause remittance inflows to decline suggesting that inflation acts as a proxy for macroeconomic instability and risks and therefore discourages the inflow of remittances. Since high inflation rate affects negatively the purchasing power of the migrant workers' families in the home country, remittances may increase in order to compensate for the loss of purchasing power which is in line with the altruism motive for remitting money. The monthly data on consumer price index in Macedonia are taken from the United Nations Economic Commission for Europe.

Lower domestic credits to private sector (LOANS) might have a positive impact on remittance dynamics, since remittances are considered an alternative in case of a lack of domestic credits in the developing countries. Therefore, a negative sign is expected for this explanatory variable.

According to Loser et al. (2006), remittance inflows to a migrant's home country are expected to encourage the domestic demand for tradable goods (TRDEFICIT). As domestic demand increases because of the purchasing power of remittances, domestic prices and wages will tend to rise, resulting in a real appreciation of the local currency. “This phenomenon would result in a loss of competitiveness for some exports and import substitutes, and thus in an increase in imports and lower exports as well.” (Loser et al., 2006) In any circumstance, this will have an impact on the trade deficit increase, so that the deficit is growing fast (a positive sign).

On the other hand, we should consider the nostalgic expenditure of emigrants described by Orozco (2004) who will also increase their travel and purchase of goods in the home country Overall, the effect of the remittances plus the nostalgic expenditure of emigrants on the balance of payments of the home country in a first round will be positively offset by the increase in imports (and decrease in exports) as demand for both domestic and foreign goods grows.

The above explained behaviour of imports has a direct influence on the behaviour and expected sign of the trade deficit, as an explanatory variable of remittance inflows to the home country.

After explaining the expected signs of the explanatory variables that enter our model of remittance inflows per capita, we first test for the presence of unit roots in the macroeconomic time series using the augmented Dickey-Fuller test and find that remittances per capita are stationary, import, industrial index and trade deficit are trend stationary, and the other series are integrated of order one except loans which are integrated of order two, i.e. I(2). To determine the appropriate lag length we start with 9 lags and subsequently eliminate lags with insignificant coefficients. The choice of model, that is whether to include an intercept or time trend, is based on the approach of Doldado et.al., (1990). Under this approach, one starts with the least restrictive of plausible models (the test equation includes both the trend and intercept) and then introduces restrictions until the null hypothesis of a unit root is rejected (if at all).

Table 1: Unit root test of the series

	LEVEL			FIRST DIFFERENCE		
	t-ADF	model*	lags	t-ADF	model	lags
REMITPC***	-3.998740 [§]	2	11			
INDINDEX***	-5.773984 ^{‡‡}	1	11			
IMPORT***	-4.328905 ^{**}	1	11			
CPI****	-2.625886 ^{§§}	1	11	-6.962157	1	11
TRDEFICIT***	-6.462819 ^{**}	1	11	-4.730682	1	11
UNEMP****	-3.092646 ^{**}	1	11	-10.23112	1	11
WAGE****	-1.328206 ^{**}	1	11	-8.909542	1	11

* Model 1 includes both intercept and trend in test equation, while model 2 includes intercept but no trend, model 3 does not include any of them.

*** Variables have unit root in levels

**** Variables have unit root in first difference, i.e integrated of order 1, I(1)

§ Test critical values at 1% level is -3.510259

‡‡ Test critical values at 1% level is -4.057528

§§ Test critical values at 1% level is -4.058619

A graph of the series is shown in Figure 8. All series, except unemployment rate and wages, clearly move in a similar way in time.

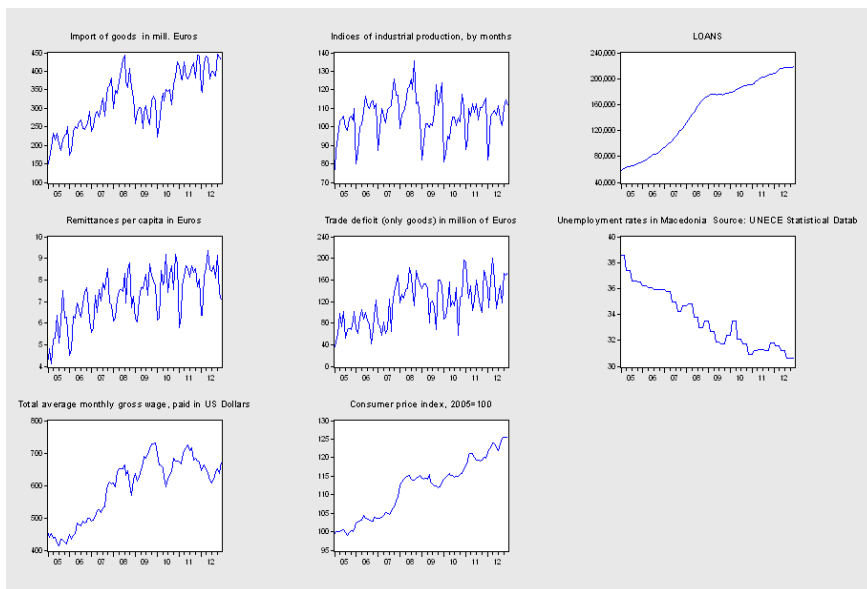


Figure 8: Graph of the series

Source: Author's own calculations

The next step is to test if there is a cointegration among the variables applying Johansen procedure (see Table 2). We use one lag to preserve sufficient degrees of freedom. Both the trace statistic and the maximum eigenvalue statistic confirm the existence of five cointegration relationships between remittances per capita, indices of industrial production, import, trade deficit, wages, loans, consumer price index in Macedonia and unemployment rate in Macedonia.

Table 2: Johansen cointegration test

Date: 05/15/13 Time: 19:35
 Sample: 2005M01 2012M12
 Included observations: 91
 Series: REMITTANCESPC IMPORT INDINDEX D(IMPORTCONS) D(LOANS,2)
 D(CPI) TRDEFICIT D(UNEMP) D(WAGE)
 Lags interval: 1 to 2

Selected
 (0.05 level*)
 Number of

Cointegrating
Relations by
Model

Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Trace	5	6	6	6	9
Max-Eig	4	3	3	3	4

*Critical values based on MacKinnon-Haug-Michelis (1999)

The estimated OLS regression equation is shown in Table 3.

Table 3: Estimated OLS regression

Dependent Variable: LOG(REMITTANCESPC)

Method: Least Squares

Date: 05/17/13 Time: 11:42

Sample (adjusted): 2005M03 2012M12

Included observations: 94 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.758990	0.283653	-2.675766	0.0089
D(CPI)	-0.017245	0.014635	-1.178338	0.2420
LOG(IMPORT)	0.380494	0.091904	4.140113	0.0001
INDINDEX	0.003026	0.001190	2.543976	0.0128
D(LOANS,2)	6.79E-06	1.14E-05	0.595363	0.5532
LOG(TRDEFICIT)	-0.101936	0.050465	-2.019918	0.0465
D(UNEMP)	-0.022420	0.031978	-0.701131	0.4851
D(WAGE)	0.000976	0.000604	1.614864	0.1100
LOG(REMITTANCESPC(- 1))	0.357671	0.088395	4.046267	0.0001
R-squared	0.655269	Mean dependent var		1.973481
Adjusted R-squared	0.622824	S.D. dependent var		0.167296
S.E. of regression	0.102744	Akaike info criterion		-1.622303
Sum squared resid	0.897291	Schwarz criterion		-1.378796
Log likelihood	85.24825	Hannan-Quinn criter.		-1.523944
F-statistic	20.19612	Durbin-Watson stat		1.722849
Prob(F-statistic)	0.000000			

Source: Author's own calculations

In order to see if this static relation is a long-run equilibrium relationship, and not just a spurious regression we have to test if the OLS residuals have a unit root, which implies that they are not stationary and the variables are not cointegrated, i.e. to implement the first phase of Engle-Granger procedure. The results of this test are given in Table 4.

Table 4: Dickey-Fuller t-test applied on the remittance residuals

Null Hypothesis: RESID02 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.065868	0.0000
Test critical values:		
1% level	-3.502238	
5% level	-2.892879	
10% level	-2.583553	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RESID02)

Method: Least Squares

Date: 05/16/13 Time: 22:51

Sample (adjusted): 2005M04 2012M12

Included observations: 93 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RESID02(-1)	-0.915575	0.100991	-9.065868	0.0000
C	0.002869	0.009798	0.292854	0.7703
R-squared	0.474565	Mean dependent var		0.001409
Adjusted R-squared	0.468791	S.D. dependent var		0.129620
S.E. of regression	0.094472	Akaike info criterion		-1.859756
Sum squared resid	0.812171	Schwarz criterion		-1.805291
Log likelihood	88.47865	Hannan-Quinn criter.		-1.837765
F-statistic	82.18995	Durbin-Watson stat		1.996852
Prob(F-statistic)	0.000000			

Source: Author's own calculations

We can conclude that the null hypothesis of no cointegration can be rejected even at level of significance of 0%, meaning that the model is a long-run equilibrium relationship.

In order to study the cause-effect pattern of relationship between the remittance inflows and consumer goods imports, as the macroeconomic indicator that exhibits highest correlation with remittances ($r=0.692739$), and to distinguish between long and short-run effects (multipliers), we use a vector autoregressive (VAR) model. First, we need to determine the order of VAR model using different information criteria.

Table 5: Lag length determination

VAR Lag Order Selection

Criteria

Endogenous variables: LOG(REMITTANCESPC)

LOG(IMPORT)

Exogenous variables: C

Date: 05/16/13 Time: 23:03

Sample: 2005M01 2012M12

Included observations: 88

Lag	LogL	LR	FPE	AIC	SC	HQ
0	73.49459	NA	0.000675	-1.624877	-1.568574	-1.602194
1	144.0005	136.2046	0.000149	-3.136375	-2.967465*	-3.068325
2	145.3902	2.621592	0.000158	-3.077051	-2.795535	-2.963635
3	152.4525	13.00098	0.000147	-3.146648	-2.752526	-2.987866
4	163.2364	19.36204*	0.000127	-3.300828	-2.794100	-3.096680*
5	168.5479	9.295150	0.000123	-3.330635	-2.711301	-3.081121
6	173.8330	9.008694	0.000120*	-3.359842*	-2.627901	-3.064961
7	176.2710	4.044832	0.000124	-3.324341	-2.479795	-2.984095
8	177.4440	1.892819	0.000133	-3.260092	-2.302939	-2.874479

* 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

Source: Author's own calculation

According to Schwarz criteria we are going to select VAR of second order as an optimal model. The estimated VAR model with two lags proves that there is a very strong adjustment process of total goods imports to the remittance inflow.

Table 6: VAR model

Vector Autoregression Estimates

Date: 05/16/13 Time: 23:02

Sample (adjusted): 2005M03 2012M12

Included observations: 94 after adjustments

Standard errors in () & t-statistics in []

	LOG(REMITTANCESPC)	LOG(IMPORT)
LOG(REMITTANCESPC(-1))	0.539847 (0.12016) [4.49281]	0.179409 (0.11332) [1.58324]
LOG(REMITTANCESPC(-2))	-0.000719 (0.12120) [-0.00593]	-0.109885 (0.11430) [-0.96137]
LOG(IMPORT(-1))	0.025782 (0.12685) [0.20325]	0.703689 (0.11963) [5.88223]
LOG(IMPORT(-2))	0.102833 (0.11959) [0.85985]	0.128500 (0.11279) [1.13933]
C	0.174457 (0.32621) [0.53480]	0.837644 (0.30764) [2.72283]
R-squared	0.483840	0.779867
Adj. R-squared	0.460642	0.769974
Sum sq. resids	1.343498	1.194877
S.E. equation	0.122864	0.115869
F-statistic	20.85680	78.82543
Log likelihood	66.27663	71.78658
Akaike AIC	-1.303758	-1.420991
Schwarz SC	-1.168476	-1.285710
Mean dependent	1.973481	5.751674

S.D. dependent	0.167296	0.241589
Determinant resid covariance (dof adj.)		0.000158
Determinant resid covariance		0.000141
Log likelihood		149.8673
Akaike information criterion		-2.975900
Schwarz criterion		-2.705337

Source: Author's own calculation

By eliminating all lags except the dependent variable's one, the estimated model of remittances (see Table 3) can be interpreted as a habit formation model: The past level of remittances has a significantly positive coefficient, and the long-run elasticity to import (0.592366) is exceeding by far the short-run elasticity (0.380494).

The impulse response function illustrates how remittances react to one standard deviation shock in total imports of goods before they are forced back on to their long-term path. The responses to the shocks, except the own ones, are small and they die away gradually.

The conclusion from the variance decomposition is that the behavior is observed to settle down to a steady state after ten periods (months). The percentage of the errors that are due to own shocks is around 95% for remittance per capita, while it is around 70% for the total import of goods.

On the other hand, the total import of goods explains only 4,81% of the variation in migrant workers' remittance inflows per capita, while remittances per capita explain 35% of the variation in total imports of goods.

The correlation between the stationary remittance inflows with the monthly indices of industrial production taken as a proxy for the economic activity shows a positive moderate correlation (0,5227), while the correlation with gross wages in US Dollars is very small and insignificant, but also positive (0,0713).

This result can be interpreted as an evidence of the procyclical nature of migrant worker's remittance inflows to Macedonia. Namely, in months when the economic activity in the country is boosting, and consequently the wages are increasing, the remittance inflows to Macedonia are also increasing, which could be an indication that remittances in Macedonia are directed towards investment and economic growth of the country, and not towards consumption. This conclusion also arises from the fact that the highest correlation exists found between migrant workers' remittance inflows per capita and the total import of goods, and not with import of consumer goods.

4. CONCLUSION

Contrary to the theoretically plausible counter cyclical argument of remittance flows to emerging market economies, our econometric analysis has shown that migrant workers' remittance inflows to Macedonia are positively and strongly correlated with Macedonian economic activity, suggesting that they are profit driven, and not by altruism or insurance considerations. The procyclicality of remittances to Macedonia that remittances could not cushion large fluctuations in Macedonian output in times of recession or economic downturn.

These findings have important policy implications. First, due to the procyclical behaviour, remittances can not be a substitute for good economic policies and structural reforms. Second, given the important economic benefits of remittances to Macedonia and the fact that they are far more stable source of external financing unlike FDI, Macedonian government should refocus from motivating the foreign investors to invest in Macedonia to maximizing the developmental impact of remittances in Macedonia by offering more investment opportunities to Macedonian emigrants, especially to those ones who wish to return to Macedonia and start their own business.

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**EMPRICAL EVIDENCE ON FOREIGN DIRECT
INVESTMENT IMPACT UPON THE ECONOMIC
GROWTH OF THE REPUBLIC OF MACEDONIA**

JEL classification: F 21

Abstract

In regard of indicators on positive business climate and hospitality for foreign investors, last year the World Bank ranked Macedonia on the 23rd place out of 183 countries in the world (World Bank, 2013). Other reports of eminent world organizations and institutions ranked the country on fairly good position in the world economy as one of the fastest reforming countries able to control the level of foreign debt. Nevertheless, during the last two decades the economy has never experienced real economic growth. Hence, with GDP of less than 10 billion USD, Macedonia happens to be one of the poorest countries in Europe. Despite all of the efforts of the Government to attract foreign investment, the economy recorded only 4.382 billion American dollars of FDI stocks at the end of 2012 (www.nbrm.mk). Due to the very limited domestic market, poor infrastructure and low consumption potential, foreign investors were attracted only to those industries which were in a position of a natural monopoly on the market. Trying to maximize their profits, they were not interested in investing in new technologies or in creation of export platforms for placing the realized output to the Western markets.

Through analysis of all available and official statistical data in the Republic of Macedonia, this article will try to analyze the structure of the attracted FDI in the country their effects upon the total industrial output, the restructuring of the economy, the creation of new jobs and decrement of the unemployment rate, as well as upon the competitiveness and the

export potential of the country. Finally, it would try to identify the major causes for the up-to date recorded poor results.

Key words: Republic of Macedonia, foreign direct investment, economic restructuring

1. INTRODUCTION

Twenty years since proclaiming independence, Macedonia has attracted 4.382 billion American dollars foreign direct investment. With only about 200 American dollars FDI per capita, the country seems to be among the most unattractive economies for foreign investors in the region of South-Eastern Europe (www.nbrm.mk). For comparison, at the end of 2005, the Czech Republic managed to attract 60 billion American dollars of FDI, Romania 24 billion American dollars, and Croatia 12.5 billions (*Kapital*, March 2013, p.10).

All of the governments in the past were really putting a lot of effort in attracting the attention of foreign investors and in creating friendly business environment. Actually, they all believed that foreign investment was the optimal solution for overcoming the obscure national accumulation and for accelerating the investment cycle in the economy which was in the process of transformation towards fully functioning market economy. Due to the inherited debt from the previous system, fresh capital could not be brought into the economy by additional borrowing either from international or from private financial sources. Therefore, the authorities implemented a lot of reforms in the legislation, judicial and institutional system in order to ease the entrance of foreign capital and to provide guarantees of foreign investors' private property.

Several years ago Macedonia became the third country in the world measured by the number of implemented reforms. In fact, from the view point of the stability of the economy and the friendly business climate Macedonia was better ranked than some South-Eastern countries according to some of the international rankings.

Doing Business ranking of some South-Eastern countries in 2013

Country	Rank
Macedonia	23
Slovenia	35
Slovakia	46
Montenegro	51
Poland	55
Bulgaria	66
Turkey	71
Greece	78
Croatia	84
Albania	85
Serbia	86
B&H	126

Source: The World Bank, Doing Business Report 2013, The World Bank, Washington D.C., 2013

Data presented in Table 1 were used from the latest World Bank Report *Doing Business*, where Macedonia was ranked on the 23rd place and had a better position in comparison to all of its neighboring countries on the Balkans, but also to countries from Central and Eastern Europe that have already become members of the European Union. According to the same source, Macedonia compared to 183 economies, improved its rank for 9 places in three years, as in 2010 it was ranked on the 32nd position (see: The World Bank, 2010 and The World Bank, 2013).

Macedonia deserved the high ranking by providing reforms on facilitation of the entrance of foreign capital and guarantees of foreign investors' rights. At the beginning of the transition the government decided to use discretionary rights to approve various incentives on a case-by-case based approach regarding the importance of the project and the possibility of establishing strategic partnerships (Kikerkova, I., 2011, p.270). During the last decade there was further improvement of the business climate by implementation of tax reforms and decrement of the corporate tax rate, as well as the rate of various contributions due to be paid by the companies, such as the retirement rate, health and unemployment contribution rate; facilitation of the business start-up procedures with duration of only 8 days; facilitation of obtaining construction permits procedures; registration of property; getting credit information; protecting investors' rights; payment of taxes by internet; employment of workers with fixed term contracts and elimination of work-time restrictions. In 2008 the new Law on Construction Land was enforced which allowed purchases and foreign ownership of construction land under a public tender bidding procedure. At the

same time, the restrictions to foreign investment in the financial sector and insurance were abolished (www.finance.gov).

Other international rankings are not evaluating the Macedonian economy as well as the World Bank reports. Last year on the Foundation Heritage List, Macedonia found itself on the 43rd place according to the Economic Freedoms Index. At the same time, the Competitiveness Report published by the Economic Forum in Davos ranked the country on the 80th place in the world from the view point of the competitiveness of the economy (*Kapital*, 2013, p. 20). These rankings explicitly refer to the weak economic capacity of the country and its performance which is evaluated to be beneath its real economic potential. Issues evidenced as an obstacle for domestic investors are certainly an obstacle for foreign investors, too.

Lately, domestic sources also provided research on foreign investors' opinion on the business climate in Macedonia. According to their answers, the cheap labor force; the low taxes; the easy and fast registration procedure of new firms; the quick issuing of various licenses and working permits, were pointed out as the biggest strengths of the economy. On the other hand, speaking about the weaknesses, they pointed at the poor road and railroad infrastructure, lack of access to capital, inefficient public administration, the problem of corruption within institutions of the system and slow judiciary system (www.mchamber.mk).

2. INFLOW AND STRUCTURE OF FDI IN THE MACEDONIAN ECONOMY

2.1.

Inflow of FDI in the period 1992-2012

Just after the proclamation of independence the government in Macedonia passed over 40 different laws in order to improve the business climate for foreign private investors, as well as to guarantee their rights. It also proclaimed discretionary rights on a case-by-case based approach in choosing foreign investors for different domestic industries. In the first half of the 90's, however, there were almost no inflows of FDI in the economy, due to many economic and political reasons. The beginning of the privatization process in the economy coincided with very unpredictable economic and political environment not only in the country, but in the whole region as well. The many wars that affected the former Yugoslav republics had a very negative impact upon the Macedonian economy that despite of everything had to continue with the reforms towards a full market economy and with the privatization process. The country was put under a tremendous political pressure, as it was objected to be recognized under its constitutional name within the United Nations until 1996 when it made a compromise and was accepted under the reference Former Yugoslav Republic of Macedonia. Facing severe macroeconomic instability, lack of foreign exchange

and a huge inherited debt from the former Yugoslav state, the country had to provide shelter for the refugees from Bosnia and Herzegovina at the beginning of the 90's, and from Kosovo at the end of the decade. In the meanwhile it also had to deal with two embargoes – the first one imposed by Greece because of the name issue, and the second imposed by the UN over Serbia (the biggest Macedonian trading partner in the region) because of the war in Bosnia. Therefore, in 1996 FDI stocks amounted only about 46-48 million American dollars (Kikerkova, I., Skopje, 1998, p. 108).

Until the end of the 90's about 80% of the privatization process was accomplished. The economy overcame the hyperinflation and regained economic stability. Regardless of the fairly convenient values of the most indicators on the transition progress (EBRD, 2000) the country was ranked as the least attractive transition country for foreign investors. Actually, it was ranked worse than Albania, which was assessed with very poor grades on most of the transition indicators at that time.

At the beginning of 2000, Macedonia received only 250 millions American dollars of FDI (Kikerkova, 2006, p. 167). At that time the government was trying to find solution for the big companies in the metal and non-metal processing industry that were registered as the so called *10 great loss-creators in the economy*. These companies could not be privatized with domestic capital. Therefore, the government adopted the strategy *pay a dollar less*, which meant that it was ready to sell these plants even for one dollar if there was an investor who was willing to buy them. For amounts between 3 and 30 million dollars foreign investors acquired the state monopolies in the production of steel and steel products, petroleum and petroleum derivatives, ferrous-nickel and cement. Foreign capital established control over the biggest brewery *Skopska pivara* from Skopje and over one of the biggest commercial banks – *Stopanska banka, A.D.* from Skopje (Kikerkova, 2006, p.167).

The greatest inflow ever registered in the Macedonian history was realized in 2001 when the government sold the Macedonian Telecom to the Hungarian MATAV and therewith FDI created 13% of the nominal GDP of the country. Other important foreign investments in the period from 2005-2008 were the acquisitions of the mains *Bucim, Sasa, Toranica* and *Zletovo*, and the investments of *Johnsons Controls* and *Swedmilk* as greenfield investment. However, each of these investments was small in its total amount and the percent of participation of FDI in the GDP was far below the pick reached in 2001. The second biggest pick was registered in 2008 when the Austrian *EVN* invested in the privatization of a part of the state monopoly for production and distribution of electricity – *Elektrostopanstvo* from Skopje (Kikerkova, I. in Antevski, M., 2011, pp. 275-276).

In the period from 2007 up-to-date the government changed the strategy on foreign direct investment and started to promote the economy as amiable for foreign investors, which was supported by creation of systemic preconditions

within the so-called *Technological Industrial Development Zones*. In these special zones foreign investors are stimulated to make greenfield investments by gaining various tax and customs incentives and deductions, free access to important infrastructure for the purpose of construction of plants and other conveniences if their production is going to be exported to foreign markets (*Official Gazette of the Republic of Macedonia*, No. 82/08, 2008).

Nevertheless, the ratio of FDI inflow in Macedonia as percentage of BDP is continuously low. Data presented in Table 2 point out that except of the two peaks in 2001 and 2008, the FDI inflow in Macedonia created approximately 2.5% of the GDP per year. For comparison, during the passed two decades most of the attractive South-Eastern economies have realized FDI inflow which created approximately 25% of their GDP per year.

Table 2

FDI inflow per year and FDI as percentage of the GDP in the Republic of Macedonia (in million American dollars)

Year	FDI inflow	Nominal GDP	FDI as % of GDP
1998	150.5	3580.8	4.2%
1999	88.4	3673.5	2.4%
2000	215.1	3578.9	6.0%
2001	447.1	3436.7	13.0%
2002	105.6	3788.8	2.8%
2003	117.8	4631.2	2.5%
2004	323.0	5368.4	6.0%
2005	97.0	5987.1	1.6%
2006	424.2	6558.3	6.5%
2007	699.1	8159.9	8.6%
2008	587.0	9834.0	6.0%
2009	197.1	9313.6	2.1%
2010	295.8	9159.9	3.2%

Source: Calculated on data published by the National Bank of the Republic of Macedonia (www.nbrm.mk)

The ratio of FDI as percentage of GDP in 2011 and in 2012 is even lower than in the previous years. As a consequence of the economic crises in the EU, foreign investors started to withdraw money in the form of loans from their affiliations in Macedonia. At the same time the amount of reinvested profit in the economy decreased substantially. Therefore, in the last two years the amounts of outflows of capital were greater than the inflows of capital and the country. In 2012 the amount of invested FDI created only 1% of the national GDP (www.nbrm.mk).

1.2. Changes in FDI structure in the period from 1992-2012

By the end of 2000 about 70% of FDI were effectuated in manufacturing, metal-processing, cement production, crude oil, food and beverages, textiles, and banking and insurance. As the invested amounts were rather small, one bigger investment was able to significantly affect the whole FDI structure and cause significant sector shifts. Only one investment by the Hungarian *MATAV* of 322.6 million American dollars in the Macedonian *Telecom* was enough to shift the FDI structure from the manufacturing in favor of the services sector. The services sector became dominant regarding the total FDI inflow in the country (Kikerova, I., 2001, p. 220).

Table 3:

Economic structure of invested FDI in the Republic of Macedonia
in the period from 2003-2009* (in millions euro)

Sector	2003	2004	2005	2006	2007	2008	2009*	Total
Agriculture/fisheries	1.59	8.38	-0.84	2.13	10.46	3.89	0.02	25.63
Mining/extraction	-1.87	6.77	16.44	0.60	8.92	0.94	-4.3	27.50
Manufacturing	28.50	158.31	19.53	99.40	126.80	33.01	57.83	523.38
Electricity /gas/ water	-0.02	2.11	-0.03	119.20	-3.57	41.19	18.32	177.26
Construction	10.63	-0.25	0.01	3.27	14.80	22.54	0.35	51.35
Services	65.55	84.60	42.90	118.87	339.01	268.75	71.65	991.35
Unallocated	6.14	1.14	0.91	1.32	9.58	0.72	-0.30	19.51
Sub-total	94.27	259.54	76.30	343.47	496.40	370.32	144.65	1,785.40
Undistributed/reinvested profit	-	-	-	-	-	41.50	-17.09	23.60

*Note: Data on 2009 are calculated only for the first six months of the year

Source: Ministry of Finance of the Republic of Macedonia, Bulletin August 2009, Ministry of Finance of the Republic of Macedonia, Skopje, August 2009, p. 28

Data presented in Table 3 confirm that until 2009 the services sector was slightly more attractive for foreign investors than the manufacturing sector. At the end of 2009 the services sector managed to attract 50% of total FDI in Macedonia.

However, the manufacturing sector, the production of electricity and gas and construction were continuously narrowing the gap and together with agriculture and mining also managed to create almost 50% of the total FDI in 2009. Within the manufacturing sector the most attractive industries were the metal-processing industries and the production of mechanical products (Ministry of Finance of the Republic of Macedonia, August 2009, p. 29).

Table 4 presents the percentage of greenfield investment and mergers and acquisitions in the total FDI inflow in the period from 1997 until 2011.

Table 4

Structure of acquisitions and mergers and greenfield investment in the total FDI

Year	Acquisitions & mergers	Greenfield investment	Total FDI (in millions euro)
1997	66.02%	33.98%	107.79
1998	80.25%	19.75%	226.11
1999	77.35%	22.65%	294.36
2000	78.42%	21.58%	517.40
2001	46.68%	53.32%	1027.17
2002	52.43%	47.57%	1138.57
2003	52.69%	47.31%	1246.37
2004	53.99%	46.01%	1395.50
2005	55.70%	44.30%	1624.34
2006	59.43%	40.57%	1949.84
2007	61.32%	38.68%	1359.21
2008	62.32%	37.68%	2540.74
2009	59.87%	40.13%	2610.33
2010	62.84%	37.16%	2729.53
2011	61.26%	38.74%	3185.29

Source: Calculated according data published by the national Bank of the Republic of Macedonia, www.nbrm.mk

Data presented in Table 4 confirm that acquisitions were and still are the most frequent form of FDI in the Macedonian economy. This structure experienced certain shift in the last 8 years in favor of greenfield investment when two foreign investors - *Johnson's Matthey* and *Johnson's Control* - entered the production of mechanical products industries by establishing new plants within the Technological Industrial Development Zone *Bunardzik* situated near the capital city of Skopje (Ministry of Finance of the Republic of Macedonia, August 2009, p. 30). Previously, greenfield investments were realized in the food-processing industry and textiles. However, these investments were rather small and they helped the establishment of small plants only that usually engaged 20-50 employees. Most of them were made by Greek investors in the southwestern part of the country. They created less than 1/3 of total FDI in Macedonia by the end of 2000 (Kikerova, I. in Jovanovic, R., Sevic, Z. eds., 2006, p. 170). However, the acquisition of the state monopoly in production of electricity by the Austrian EVN caused a new significant shift of the structure of effectuated FDI in the economy in favor of acquisitions and mergers.

Table 5

Leading ten foreign investor-countries in the Republic of Macedonia
(31.12.2011)

Country	FDI stocks in mil. euro	Percentage of total FDI stocks
Netherlands	745.00	20.41%
Austria	416.76	11.42%
Slovenia	405.66	11.12%
Greece	390.48	10.70%
Hungary	346.57	9.50%
St. Vincent and Grenadine	139.16	3.81%
France	131.50	3.60%
Switzerland	126.40	3.46%
Bulgaria	120.29	3.30%
Turkey	117.23	3.21%
Other	710.42	19.47%
Total:	3,649.47	100.00%

Source: www.nbrm.mk

Data presented in Table 5 point out that about 90% of total FDI in the Republic of Macedonia have European origin. The Netherlands gained the leading position as foreign direct investor by investing in transport communication and warehousing in 2009. At the end of 2011 the FDI originated from Netherlands reached a total of 745 millions euro, which created 20.4% of the total amount of FDI stocks in the country. The second place belonged to Austria, which had 416.8 millions euro (11.42% of total FDI stocks) and the third to Slovenia with 405.7 millions euro (11.12% of total FDI stocks). These three countries created over 43% of the total amount of FDI effectuated in Macedonia by the end of 2011 (www.nbrm.mk).

3. BUSSINES CLIMATE AND EFFECTS OF FDI UPON THE MACEDONIAN ECONOMY

The business climate in a country is affected equally by economic and political influences. The analysis of the economic factors points out that Macedonia is among the first five countries in the world which disposes with one of the simplest procedures of opening of a new business. Better ranked than Macedonia are only Singapore, Canada, Australia and New Zealand (World Bank, 2013). The World Bank Report *Doing Business*, which evaluates the progress of the economies in regard of 10 different indicators, last year found out that Macedonia realized the biggest progress in facilitation of the procedures of

obtaining construction licenses. In the last 7 years the number of procedures on issuing of a construction license was cut down to half - from 20 to only 10 procedures. The duration of this procedure at present is 117 days, while in 2005 it lasted 244 days. The costs for obtaining a construction license amounted 2,439% of the average personal income, while at present they reach 518%, which can be considered as significant improvement. Also, the procedure of obtaining the company's seal was substantially simplified and the economy became one of the places in the world where it is the easiest to open a new businesses. At the same time the country is ranked among the most liberal economies for registration of small and medium-size enterprises and belongs to the rank of Germany, Japan, Estonia and Latvia. However, companies are still facing different challenges when it comes to trade and obtaining connection to electricity (World Bank, 2013).

The country is facing low competitiveness (evaluated with 4) and was ranked on the 80th place in the world economy. Actually, last year Macedonia got the same grade in competitiveness as Croatia. Talking about competitiveness, there was an improvement in availability of financial services, facilitation of government regulative, quality of air-transportation, and bank security. The biggest worsening, however, the Macedonian economy experienced in regard of the inflation rate, as at the end of 2011 it reached 3.6%. This meant that Macedonia did not belong any more to the group of countries with an average growth of prices between 0% and 2%. The worsening of indicators on competitiveness was also significant in regard of the implementation of new technologies, research cooperation between universities and companies and capacity for innovations (*Kapital*, March 2013, p. 21).

Although the economy was ranked as one of the fastest reforming in the world, the low level of foreign, but also of domestic investment clearly points out that the business climate is far from satisfactory. The most often stressed weaknesses of the economy happen to be the very limited market scope, the poor road and rail-road infrastructure, the inconvenient economic structure with dominant traditional industries that create low added value and have weak accumulation capacity, the weak protection of private ownership rights, various administrative and red-tape barriers, corruption, and inaccessibility of financial means for growth of businesses. Yet, this is only one side of the medal of the challenges in the real economy. The other side concerns political challenges which are mainly due to the interference of political parties in the economy and imposition of various administrative and red-tape barriers to managers who are not belonging to the political parties close to the position (*Kapital*, March 2013, p.24).

The acting of foreign investors in the past two decades undoubtedly confirmed the low capacity of the Macedonian economy. The small amount of attracted FDI is not the only negative issue. Even more important is the fact that foreign investors appeared to be mostly interested in acquisitions of companies that were in a position of a natural or a state monopoly at the domestic market. In order to

realize investment in such companies most of them demanded extra guarantees from the Government which would secure their dominant position for a certain period of time and would enable them to make their investments worthwhile and to realize monopolistic profits from local customers. The lack of interest in investment not only by foreign investors, but also by the domestic ones, enabled foreign companies to acquire local companies at prices far below their real market value. Thus, with a very low level of investment foreign investors managed to acquire and gain dominant ownership of 51% of the 100 biggest companies in the Republic of Macedonia. The rest of the 100 biggest companies in the country consisted of companies with dominant domestic ownership (33%), 8% were fully owned by the state and another 8% were in non-dominant domestic ownership (www.statistics.gov.mk).

Once provided with dominant position on the Macedonian market, foreign investors are not interested in making additional investments and technology transfers, nor are they interested in spreading the business and opening new working posts. Instead, they claim that Macedonian companies suffer from over-employment and soon start with dismissal of the already employed workers. In many of the acquired firms the number of employees was cut down to almost 1/3 after several years of the entrance of the foreign capital. Nevertheless, companies with foreign capital employ substantial portion of the human capital in the country. For example, the companies with foreign capital from the rank of the 100 biggest companies in the country, which employ a total number of 45,870 employees, create 40% of the total working posts in these companies with 18,345 employees. At the same time, the state companies that represent 8% of the 100 biggest companies in Macedonia, employ 12,975 employees and thereby create 1/3 of the total number of employees in the above mentioned rank (*Kapita*, 1st of July, p.15). The amount of realized profit per employee in the companies with foreign capital from the top 100 companies in the country is 18,000 euro per year. The state companies from the 100 biggest companies however realize only 1,231 euro per employee per year (*Kapital*, 1st of July, pp.17-18).

The profitability of the companies in foreign ownership was not a result of the improvements in their performance or the transfer of new technologies and new managerial skills and practices. As stated before, foreign investors basically entered services (including the financial and insurance sector) and, by putting minimal effort for insignificant improvement of the quality of provided services, realized maximal profits by keeping up monopolistic prices for their products on the maximal level sustainable for Macedonian customers. Most consumers on the Macedonian market complain that almost in each segment of the economy they have to pay European prices or even more for substandard quality of products and services. However, this enables the companies with foreign capital to be highly profitable. They make a turnover of about 3 billions euro per year which is double the amount of the turnover of the companies in domestic private ownership (*Kapital*, 1st of July, p.18).

Satisfied with the monopolistic position on the domestic market and with the high profit rates foreign investors are not interested in enhancing export from Macedonia. Actually, only 11% of the registered companies are involved in the manufacturing industries which create 90% of the total Macedonian export, and only 5% of the active companies are exporting. From the range of exporting companies, the top 10 companies in the country, from which 8 are in foreign ownership, realized export of about 2 billion American dollars and created 40% of the total Macedonian export of goods in 2010. Only four of them – FENI Industry, Johnson Matthey, the OKTA – Refinery and Arcelormittal - realize exports of over 100 million American dollars per year (www.statistics.gov.mk).

Table 6:

Top 20 exporting companies with foreign capital in the Republic of Macedonia

Rank	Company	Sector	Foreign investor
1.	OKTA – oil refinery	petroleum	Hellenic Petroleum/Balkan Petroleum – Greece/Cyprus
2.	EVN	electricity	EVN Group - Austria
3.	FENI - Industry	metal-processing	Beny Steinmetz Group - Netherlands
4.	Macedonian Telecom	telecommunication	Kamenimost komunikacii (in liquidation), Government of RM, Macedonian Telecom, AD - Hungary
5.	T-Mobile Macedonia	telecommunication	/ - Hungary
6.	Johnson Matthey	chemicals	Johnson Matthey – Great Britain
7.	Arcelormittal - Skopje	metal-processing	Arcelormittal Holding AG - Netherlands
8.	Makstil	metal-processing	Duferco Skop Investment Ltd. - Switzerland
9.	Euro Tabak	tobacco	/ - Russia
10.	Lukoil - Macedonia	petroleum	Lukoil - Russia
11.	Sasa	mining	Solvej - Russia
12.	EFT Macedonia	trade in electricity	EFT Holding - Great Britain
13.	USJE Cementarnica	construction materials	TITAN Cement Netherlands B.V - Netherlands
14.	Pivara Skopje	beverages	Brewtech B. V., Brewtrade, BV&M6 - Netherlands
15.	Kamenimost komunikacii (in liquidation)	consultancy	/ /
16.	ONE	telecommunication	Telecom Slovenia - Slovenia
17.	Imperial Tobacco TKS	tobacco	Imperial Tobacco Group Ltd. – G. Britain
18.	Veropulos	trade	Nikos Veropulos - Greece
19.	Dojran Stil	metal-processing	Sidenor SA - Greece
20.	Porshe Macedonia	trade	/ - Germany

Source: *Kapital, Business Magazine Nr. 609, Kapital Media Group (published in Macedonian language), Skopje, the 1st of July, 2011, pp. 16-17*

Looking at the list of the top 20 biggest exporting companies, presented in Table 6, it is evident that the leading positions belong to the companies in the metal-processing industries, followed by companies in the extracting/mining industry and by companies in the tobacco industry. More than half of those companies are in foreign ownership and they all export commodities with a low added value. The average annual rate of growth of exports in Macedonia is 9.6% and it is

about two times lower than the rate of growth of exports in Serbia, Bulgaria, Slovakia or Turkey (www.mchamber.mk).

The leading exporting companies from the country are the biggest importers as well, as most of them depend on import of raw-materials. Only few of the top 20 companies in the country process domestic raw materials. It is important to point out that total import registers higher annual rate of increment in comparison with the annual rate of total exports. This is deepening the existing deficit in the trade balance (www.investinmacedonia.com).

It is also important to point out that since the beginning of the economic crisis in 2008 the net-value of the capital outflow from the country has been increased, as foreign investors have been pulling out the realized income in their Macedonian companies and the reinvested income decreased substantially. This is creating additional negative effect upon the balance of payments and it is further deepening the balance of payments' deficit.

4. CONCLUSION

At the beginning of the transition many foreign investors pointed out that each of the economies on the Balkans had a very limited capacity for attraction of FDI. Foreign investors were interested to invest their capital only if it could not be used for the satisfaction of consumer needs within the region.

Nevertheless, the Macedonian economy performed under its real potential. It is true that almost a whole decade Macedonian exporters were openly discriminated on foreign markets. But it is also true that this was not the main obstacle for Macedonian exporters. Much bigger problem for potential investors that were export-oriented was the lack of good road and rail-road infrastructure that would connect the country with its neighbouring countries and through them to Western markets. In fact, there is only a north-south rail-road connection of Serbia through Macedonia with Greece. There is no rail-road towards Bulgaria, neither to Albania, and the road infrastructure in the eastern part of the country is especially poor. The only port that Macedonia is using for export of its goods is in Thessalonica – Greece and exporters have many times problems to get to it from various reasons. The new political divisions in the region put additional border-crossings and each of them has established its special procedures which complicated export and transport procedures, and made transport of goods via ex-Yugoslav parts more expensive and less efficient than previously. This was the main reason why “good-intended” investors left out and remained only those interested in the big state-owned monopolies which did not provide an impulse for economic growth and development.

There were also a lot of problems in full implementation of the rule of law and securing investors’ rights. Almost all of the Reports of the European Commission evaluating the progress in the candidate status of the country towards full EU-membership point out the inefficiency of courts, the need of reform of the judicial system and the problem with corruption.

However, it is evident that investors who effectuated capital investments in Macedonia are not interested in spreading their operations on regional level. The top 10 companies in Macedonia, from which 8 are with dominant foreign ownership, realize bigger total income per year only in comparison with the top 10 companies in Montenegro. Serbian, Croatian and Slovenian top 10 companies realize from 5-6 times bigger total incomes than the Macedonian top 10. At the same time, only five of the top 10 companies in Serbia, 3 in Croatia and 2 in Slovenia have dominant foreign ownership. None of the Macedonian top 10 has invested in the region, which is quite the opposite in the case of Slovenia and Croatia. In Slovenia 8 companies from the top 10 are especially active on regional level, while in Croatia 3 of those companies are making strategic investment in the region. Even in Serbia one of the top 10 in foreign ownership is regionally active (*Kapital*, 18th of January, 2012, pp. 13-15).

Considering the actual economic situation in the world and the untypical challenges that Macedonia is facing in the processes of obtaining NATO and EU membership it is hard to believe that the economic situation and the attractiveness of the economy for FDI is going to change in a near future. Actually, disinvestment has already started in almost all Balkan countries, regardless of their status in the EU-integration process, such as Slovenia, which is almost 10 years a full member of the EU, and Croatia, which has just become a full EU member. Perhaps it is time to make a joint regional research in order to detect the real causes for this negative trend.

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**INTELLECTUAL CAPITAL AS A MOTIVATIONAL
FACTOR FOR FDI**

JEL classification. (suggested): F21, D24

Abstract

The hypothesis of this paper is that the intellectual capital is one of key motivational factors for attracting FDI in Croatia. The confirmation of the hypothesis is based on sectoral and specific firm analysis. The analysis of intellectual capital is based on VAIC method and other methodologies for measuring intellectual capital are also mentioned as a reference. It is also suggested that those sectors that have more intellectual capital are usually more than average users of ICTs, and that investments into ICTs (information and communication technologies) can further increase FDI, which can be seen in developed countries, although not in transition countries.

Keywords: FDI, ICT, intellectual capital

1. INTRODUCTION

The main research question of this paper is whether intellectual capital serves as a motivational factor for FDI inflow in Croatia, and in addition to this, whether this inflow may possibly be used to further increase FDI if it is directed into ICT sector. According to the hypothesis of causality between FDI and ICT, higher investment in ICT lead to increase in FDI in developed countries. However, in transition countries this was not observed. In developed countries there is an accumulated capacity of ICT which can cause the inflow of FDI, and in developing and transition countries this capacity must be built up in order to attract FDI. In this hypothesis, the increase in FDI inflow causes new increase of investment in ICT and increase of ICT capacity, which was confirmed by Granger causality test on the panel of 23 countries (Gholami, R., Sang-Yong, T.L., Heshmati, A.: 2003.). The inflow of FDI, coming mostly from multinational companies, is coupled with the subsequent investment in ICTs, such as business management systems, which can lead to increased competitiveness, forcing domestic companies also to invest in ICT. The productivity of work and value added in firms that received FDI is increased, which created the business environment enabling further attraction of FDI. Essentially, those are pull and push effects that are produced by FDI, on the basis of „feedback causality“ (Leitão J. i Mário Raposo M. :: 2010.) Although FDI itself does not significantly increase productivity in transition countries, the productivity of work increase caused by investment in ICT is significant (Dimelis, E., Sophia P., Papaioannou Sotiris K.:2010.), both for developing and developed countries. The ratio of human capital and investment in ICT on the concrete example of ERP business system and overall performance of firms has been analysed using VAICTM method of calculating value added created by intellectual capital, which was developed by Ante Pulić. This method uses VAICTM and ICE indexes of intellectual capital efficiency to measure value added, human capital and intellectual capital in firms. The main difference from traditional capital accounting methods is that it treats labour costs as an investment and not as a cost. Most methods for measuring intellectual capital divide it into human capital, structural capital and other components (Edvinson, L. and Brünig, G :: 2000). The data on intellectual capital, human capital and value added provided by Ante Pulić and his Center for Intellectual Capital (in annual publications „Intellectual Capital“) were used to confirm the correlation of intellectual capital and FDI, and we used a questionnaire and data on performances of firms in order to confirm if this fact contributed to the work productivity and consolidation of ICT sector. As intellectual capital was measured by sectors of economy, and FDI is also recorded that way, we were able to prove the correlation between ICE and FDI. We then used the sample of firms that significantly invested in business system (ERP) between 2001 and 2005, and on the basis of ICE and VAICTM indexes we further selected the sample to include only those firms with above average VAICTM indeks (higher than 3,6), and also ICE index (higher than 2,3), to analyse the work productivity increase and value added due to increased intellectual capital

of firms, before FDI and after FDI, and to compare this to the control group of firms that did not receive FDI. The ERP may be used as a proxy for all ICT investments on firm level that is correlated with intellectual capital, as it is among the largest initial investment in ICT that also has a 3-4 years period for implementation of the whole solution and large consulting costs (Vukšić-Bosilj, Spremić :: 2011).

2. CORRELATION OF ICE INDEX OF FIRMS AND FDI INFLOW

On the basis of ICE index data and VA of the firms we can make conclusions about the usefulness of such investments before and after investment in ICTs in a certain period of time.

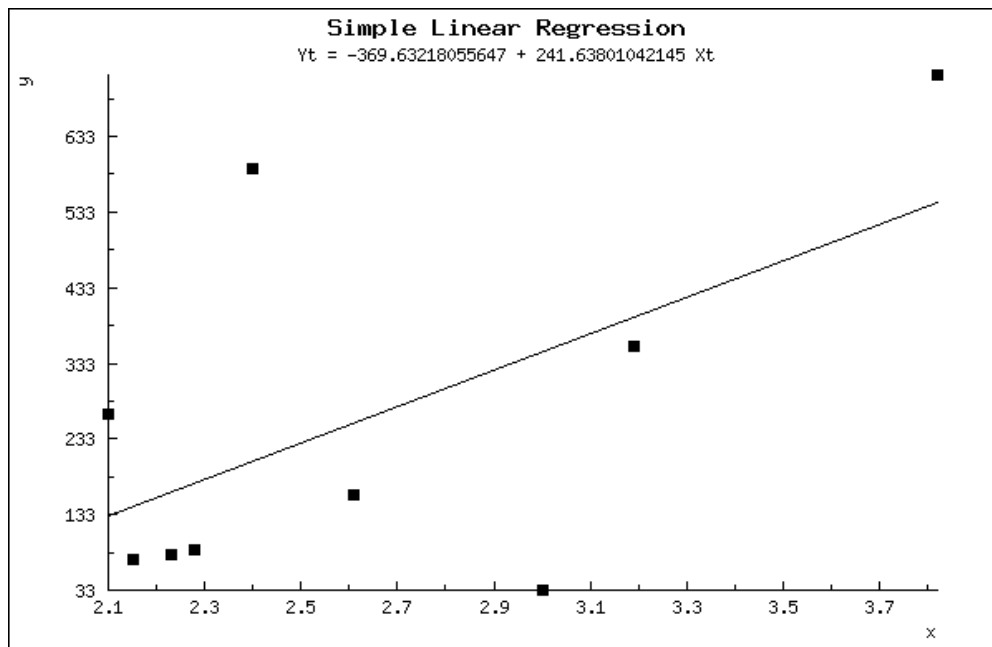
Table1 VAIC and ICE for chosen firms, ICT sector excluded

	VAIC 96-01	ICE 2003	VA96- 01	VA 2006	ICE 2006
TDR	13,72	7,91	556	863	7,4
Tankerska plovodba	10,82	7,59	380	409	8,96
Plinacro	10,78	15,86	177	311	11,71
Končar- e.tr.	8,69	3,68	34	86 (2003)	----
DM	7,33	3,19	68	196	3,48
PBZ Am. Ex	7,32	4,81	154	305	5,96
Žito	7,31	4,37	81	155	5,62
Zagreb.piv.	6,54	6,34	453	----	----
HEP	3,0 (2002)	5,65	1494 (2002)	478	9,85 (2005)
TC Koromačno**	4,47 (2002)	5	---	---	---
Našicecement	5,49	4,64	158	198	5,06
PLIVA	5,47	2,75	2101	1084	4,11
Atlantic trade	4,66	2,71	39	97	2,43
Cedevita	4,49	1,84	93	74	2,97
Belupo	4,44	3,11	230	293	---

Privredna banka	4,17	4,31*	2767	---	5,65*
INA	4,13	3,51	3898	3892,6	3,77
Jamnica	4,1	3,1	175	254	2,04
Vindija	3,91	2,43	123	---	3,3 (2005)
Lura	3,73	2,07	405	375	2,03
Franck	3,71	3,11	201	200	3,25
Coca Cola	3,71	3,45	326	289	2,76
Ledo	3,6	3,61	163	194	2,52
Dalmacijacement	3,25	3,67	208	251	2,63
KONZUM	---	1,28	---	231	1,43
(Source: Intellectual Capital 95-01, November 2002., 2004, 2007; Center for Intellectual Capital - CIK) * PBZ Leasing **Holcim					

By observing the value added data, VAICTM and ICE indexes between 1996 – 2006., we concluded that ICE index of firms that received FDI increased until the inflow of FDI, whereas value added slowly decreased in that period. After the FDI inflow and the investment in business system (ERP) based on ICT, value added increased and ICE index remained the same or somewhat decreased. On the basis of the data for sectors of economy, we proved a moderate correlation between FDI between 1993 and 2005 with ICE index in 2006, as well as moderate correlation with ICE I-IX 2005. with correlation coefficient 0,72551 (p-Value = 0,044 – two-tailed). There is no correlation between FDI and VAIC index for 2002. Regression equation is $y = 64.54431 + 100.27419 x$, so if there was a causal relationship between ICE and FDI, we could claim that a higher ICE index in economic sectors attracts more FDI; however, they do not increase value added (and VAIC index) in the short term, which can be explained by the application of the “logic of capital” the development, which is mainly geared towards work productivity increase and not value added increase. That suggests that foreign investors are mainly interested in cheaper qualified labour and entering the domestic market of Croatia and not the development of intellectual capital of Croatian firms and further expansion to the world market.

Figure 1 Linear regression of FDI 1993-2005 and ICE 2006



Correlation coefficient: 0,7157

t-STAT: 1.846203; F-test: 3.408465

Table 2 1993-2005 - FDI in million euros, ICE 2006, ICE I-IX 2005 and VAIC 2002

Sector	FDI	ICE 2006	ICE 2005	VAIC 2002
Financial intermediation	714,03	3,79	2,96	2,28
Wholesale and retail trade	589,37	2,37	2,39	2,64
Mining	354,92	3,16	2,2	2,78
Other business services	266,25	2,07	1,84	
Post and telecom	159,37	2,58	2,24	2,73
Construction	85,2	2,25	2,11	2,19

Hotels and restaurants	72,85	2,12	2,27	3,4
Other production of non-metallic products	79,3	2,2	1,44	2,3
Water	32,83	2,87	1,96	--
Other	322,18	--	--	--
Agriculture	1	1,56	1	1,59
Source: HNB i CIK – Center for Intellectual Capital				

It appears, from the above data, that the intellectual capital appears is the one of motivation factors of FDI inflow in Croatia, as the sectors with lower ICE indexes attracted less FDI in comparison with sectors with above average ICE. It may not, however, be excluded that there are also other factors and it may not be concluded that the intellectual capital is the main or sole motivational factor in FDI attraction in Croatia.

3. INVESTMENT IN ICT (SOFTWARE) IN FDI RECIPIENT FIRMS

On the basis of the analysis of individual firms included in our analysis of the firms investing in ERP software and the size of those firms in overall Croatian economy on one hand, and the sectors in which those large firms operate and ICE indexes of those sectors on the other hand, we also assumed that the firms in the sectors with the highest ICE index are the largest investors in ICT, whereas the firms in sectors with lower ICE index, that did not attract as much FDI, do not invest that much into ICT (such as hotel and restaurant sector, agriculture forestry and fishing sector and construction sector). In the firms with the sectors that have average ICE we assumed that the situation varies according to the size of the firm, so that in the wholesale nad retali and processing industry sectors the larger and more competitive firms invest more in ICT than smaller and less competitive firms. In the sector of wholesale and retail trade and processing industry (manufacturing) sector, there is a greenfield FDI inflow that is not motivated by the ICE index, but return on investment. The approximation for the total amount of FDI in ICT sector for large corporation is the amount invested into introduction of ERP system, as such investments are the largest ICT investments in firms, and only two corporations provided them – SAP and S&T, of which the

former held the largest portion of the market, approximately 90%. Only the most competitive large corporations, with the highest amount of capital and profit were able to acquire such a business system, following the trend set by the foreign large firms in Croatia (subsidiaries created by greenfield investments) and those that were acquired by foreign investors. We also used the questionnaire for firms using ICT and the questionnaire for the ICT producing firms in the analysis, except for this rough approximation, according to the predefined methodology. The problem with such approach is the small number of actual respondents, because of lack of interest in the research, but it may be assumed that most people in ICT industry in Croatia share their opinions, as this sector is rather small in size and very compact and integrated in terms of mutual contacts and communication of participating actors. This assumption also seems valid since, due to relatively short period of Croatian independence and development of market economy, most ICT firms in Croatia share common values and business environment, that is still dominated by telecoms and faculties.

4. RESULTS OF THE QUESTIONNAIRE FOR THE ICT SERVICE PRODUCING FIRMS

We examined ICT service producing firms by questionnaire, using the same methodology. The structure of ICT service producing firms is even more irregular, as there are almost only small firms with a smaller number of medium firms. We used a sample of 17 small, 2 medium and 2 large firms. The sample was structured according to the number of firms including subsectors of J62 (computer programming, consulting and related activity) and J631 (data processing, server services and internet portals), so we used 16 firms from J62 subsector and 4 firms from J631. The sample was not geographically structured, as we deemed this criterion as not relevant for representativeness, due to the characteristics of ICT business activity that is not bound to some specific location, so we treated the whole of Croatia as one geographic location including all firms in the sample.

On the basis of the questionnaire, we conclude that the ICT service producing firms are mainly oriented towards domestic market and SEE and "Balkan" region, and the main barriers are poor state legislation, legal system and public administration, as well as poor business environment. Other barrier is also high labour cost, whereas labour quality and ICT infrastructure received good marks. The firms are mainly in service sector and their clients are mainly firms active in financial intermediation, wholesale and retail trade and public services, health and education. They expect growth mostly in sectors connected with ICT business solutions, management and system integration (SI) services. The questionnaire did not precisely determine the strategic goals of those firms, but it may be suggested that they are mostly interested in developing the existing market and expansion in the region,

where their clients are located, and also in providing services to the governments in the region.

5. PERFORMANCES OF LARGE FIRMS THAT INTRODUCED ERP

The analysis of performances in 2007 of large firms that introduced ERP business system between 2001 and 2005. (2-6 years of lag), we find that the revenue and profit of those firms after the investment in ICT grew faster in comparison with the previous period.

Table 3 Revenue and net profit of firms, 2007. and 2008.

	Revenue (in 000 kuna)		Net profit (in 000 kn)	
	2007.	2008.	2007	2008.
Adris/TDR	2970784	3022245	667721	499100
Podravka	3431816	3660034	18336	47463
Belupo	610560	730881	77600	72380
Atl.grupa/C edevita	1699103	2024459	54456	77034
Coca-Cola	1003689	--	50000	--
Ericsson NT	1781486	1800059	199795	204368
Franck	562698	618350	59590	52050
INA d.d.	24095000	27144000	1278000	350000
Z. pivovara	822833	802991	152260	162564
Pliva d.d.	6061978	4968355	702951	259939
Elka	640148	--	7683	--
Elektrok.	415515	--	12096	--
Henkel	460414	--	22765	--
Holcim	480688	--	43896	--
Cemex	1138860	--	118152	--
Metro	1617408	--	36936	--

Jamnica	946628	1080000	51740	72760
Ledo	1.007339.	1164209	69426	89431
KONZUM	10000000	12707828	221000	329233

Source: Zagreb stock exchange (www.zse.hr), FINA i www.poslovna.hr

The growth continued in 2008 and 2009, when the majority of economy had a downturn due to economic crises. We also find that revenue per employee and net profit per employee are above average, but the cost per employee in total expenditures is varied. It may be assumed that the ratio of personnel cost per employee and net profit per employee is proportional to the investment, with the aim of increasing the work productivity and profits, and not investing in employees and increasing value added in the medium and long term. This would also apply to the investment in ICT in those firms.

Table 4 Labour in firms, 2007 (number of workers, profit, revenue, cost, HCE – human capital efficiency index).

	Number of workers (average on the basis of working hours)	Revenue per worker (000 €)	Net profit per worker (000. €)	Personel costs in total expenditures (in %)	Ratio of cost per worker and net profit per worker *	HCE (human capital efficiency) = (profit +HC) /HC *
Adris (TDR)	700	399,75	107,08	10,8	0,3	4,41
Belupo	841	101,26	12,88	26,2	1,79	1,55
Cedevita	272	147,98	15,46	1,52	0,13	8,69
CocaCola	734	189,92	9,54	13,3	2,5	1,39
Ericsson NT	1000	188,32	19,82	20,2	1,72	1,58
INA	10000	331,28	13,66	6,4	1,49	1,67
Podravka	4000	83,47	0,12	18,3	-----	6,47
Z. pivov.	518	216,85	40,13	16,6	0,73	2,36
PLIVA HR	2000	145,15	-4,32	16,3	-----	----
ELKA	518	171,64	2,06	9,4	7,73	1,13
Elektrok.	1000	57,71	1,68	27,4	9,14	1,11
Henkel	107	597,63	29,55	5,1	0,98	2,02

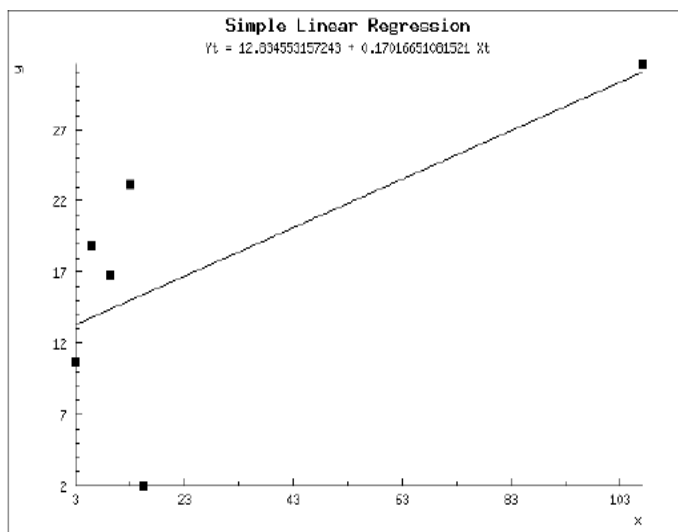
Holcim	205	325,67	29,74	10,8	1,07	1,93
Cemex	750	210,91	21,88	13,7	1,18	1,84
Metro	1000	224,64	5,13	5,1	2,18	1,45
Jamnica	1000	111,04	5,96	18	3,17	1,31
Ledo	1000	137,11	9,27	13,1	1,8	1,55
Konzum	10000	144,09	2,98	7,6	3,6	2,76

Source: www.poslovna.hr

* calculated by the author

Correlation coefficient between labour cost per employee and profit per employee is approximately the same for the sample of all domestic and all foreign firms, as well as for all domestic and foreign firms. We conclude that there may be negative correlation between the foreign capital in firms (more than 50% foreign owned) and ratio of investment in employees and profit. It follows that the increase of value added in these firms after FDI was not due to investment in employees, but from investment in ICT, which aimed to increase value added and not only the productivity. Therefore, we conclude that foreign owners invest in ICT in order to increase value added in medium and long term, and domestic owners invest in ICT in order to follow the trend and invest in the employees, thereby increasing the ICE index and intellectual capital, attracting the FDI. The aim of the foreign owned firms appears to be to maximize the ROI, and the aim of domestic firms is to attract the investment, as they lack their sufficient capital to be competitive.

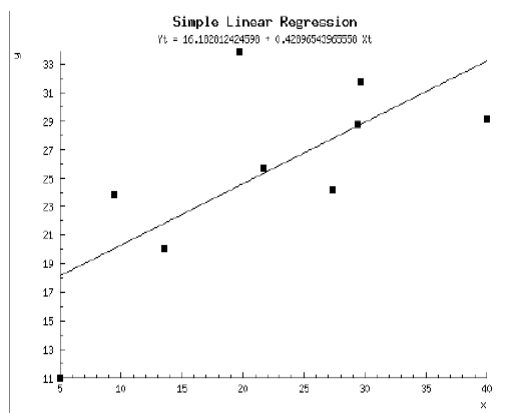
Figure 2 - Regression of personnel costs per worker and profit per worker for domestic firms



Correlation coefficient = 0.67;

T -test: 1.8094095491296; F- test: 3.273963; P-value: **0.072324**

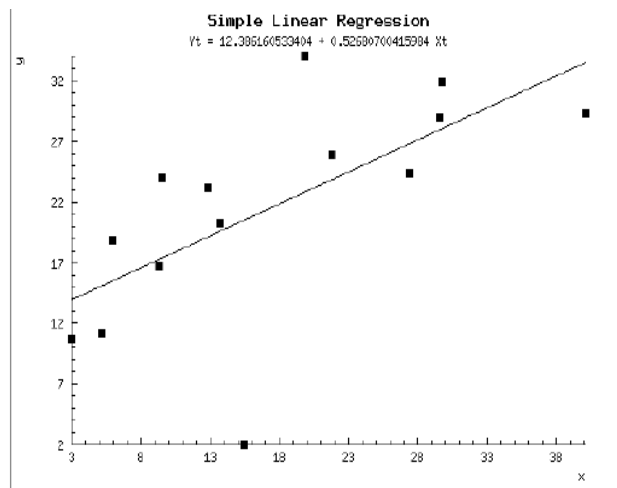
Figure 3 - Regression of personnel costs per worker and profit per worker for foreign owned firms



Correlation coefficient = 0.69

F-test: 6.547868 T-test: 2.558880187316; P-value: 0.031359

Figure 4 - Regression of personnel costs per worker and profit per worker for both domestic and foreign owned firms



Corr. coef. = 0.66

T-test: 2.9539014761047; F-test: 8.725534; P-value: 0.020903

Whereas we get significant correlation for foreign owned firms (Figure 3), domestic firms would not exist if we removed Adris group (TDR), from the sample. However, if the regression is made for both foreign and domestic firms, we again get a significant, moderate correlation. (Figure 4). Therefore, we may conclude that domestic firms generally behave just as foreign owned firms, but they do not generally have sufficient capital to invest in their employees (TDR is a counter example of a firm with a lot of capital, operating in tobacco industry). In conclusion, it may be deduced that FDI in domestic firms with higher intellectual capital are useful, because they do not only enable the increase of value added, but also the higher investment in employees, which means higher investment into intellectual capital, which is proportional to the profits of the firm, and may also lead to spillover effects.

6. WORK PRODUCTIVITY IN CROATIAN ICT SECTOR

Work productivity in ICT sector in 2005 was the highest in large firms, much lower in medium and at lowest in small ICT firms. However, the productivity in small firms increased due to increase of revenue, which shows the strengthening of ICT sector with respect to work productivity in small firms. That increase was caused probably by the higher value added and competitiveness of small firms. IN 2008 the productivity of medium firms also significantly increased, and in 2008 and 2009 the productivity of large firms decreased because of smaller

revenue. This confirms the trend of strengthening and consolidation of ICT sector and suggests the increase in inovativeness due to „logic of knowledge“, and decrease of „logic of capital“ based on old foreign technology absorption.

Table 5. Productivity in service ICT sector – 2005 and 2006

	Work productivity (revenue per working hours, in HRK)			
	SMALL	MEDIUM	LARGE	TOTAL
2005	183.07	403.92	1012.57	305.2
2006	233.47	509.52	730.12	291.39
2007	218.45	470.93	665.48	291.52
2008	266.12	624.12	215.27	293.33
2009	228.78	342.5	224.51	231.03

Calculated by the author

Ratio of profit and revenue in ICT sector for small enterprises is much better in the sector of ohter computer activities than in the rest of the ICT sector, and generally better in services than in manufacturing.

Table 6 – ratio profit/revenue in ICT sector – small enterprises

Activity									
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Computer equipment consulting services	--	3,58	5,37	4,2	--	--	--	--	--
Computer programming, consulting and connected activities (J62)	6,05	7,01	6,48	6,4	--	--	10,26	10,15	10,7
Dana processings erver services and	8,03	10,11	6,48	7,33	--	--	11,99	9,31	7,39

connected activities, Internet portals (J631)									
Database creation and management	3,72	5,59	6,52	4,25	--	--	--	--	--
Maintenance of office equipment and computers	2,95	4,18	3,31	4,84	--	--	--	2,72	--
Computer activities (K72)	10,06	7,42	8,07	7,39	9,04	9,33	9,32	8,17	8,15
IT sector (according to HGK)	4,62	5,77	4,9	4,8	--	--	5,72	5,35	--

Source: HGK – Croatian Business Chamber, FINA – Financial Agency

7. CONCLUSION

On the basis of the analysis of intellectual capital indexes and FDI, we may conclude that there is a correlation between FDI and intellectual capital in Croatia, but the correlation between attracting FDI and ICT is weak. FDI have mainly targeted domestic market or expansion in the region, without strategic goal of further expansion. They have mostly been in services, mainly financial intermediation and trade. It is possible to notice a certain dynamics in attracting FDI, which is directed to those firms with higher ICE, and that those firms tend to increase ICE by investing into human capital and ICT. On the basis of a proxy of ERP systems in large Croatian firms, we may conclude that the large investments in FDI increase the value added and productivity of large firms. FDI are positively and significantly correlated with the intellectual efficiency (ICE), which leads to the increase of value added (VA) after the investment in large ICT in firms that have received FDI, in comparison with the control group of domestic large firms that have not received FDI. However, some time after receiving FDI, ICE slowly decreases. We conclude that the intellectual capital of firms has the function of attracting FDI, and the investment geared towards increasing intellectual

capital stops, having achieved this goal. Further investments are directed to increasing productivity and value added by different means, including the investment into ICT. This increases the possibility of strengthening the ICT sector by using external ICT services and spillover effects, which may be seen by observing the increase in the productivity of Croatian small and medium ICT firms in J62 and J631 sectors, in comparison with large firms in those sectors..

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RESULTS OF THE QUESTIONNAIRE

Investments of the firms in ICT

1. In the last 5 years, as a percentage of revenue						
0,00%	0-5%:	5-10%:	10-15%	15-20%	20-30%	> 30%
0,00%	83,00%	17,00%	0,00%	0,00%	0,00%	0,00%
mean: 2,17		var.:0,17		s. dev.: 0,41		
2. In the last 10 years, as a percentage of revenue						
0,00%	0-5%:	5-10%	10-15%	15-20%	20-30%	> 30%
0,00%	83%	17,00%	0,00%	0,00%	0,00%	0,00%
mean: 2,17		var.:0,17		s. dev.: 0,41		
3. In the last 5 years, as a percentage of revenue, for external ICT						
0,00%	0-5%	5-10%	10-15%	15-20%	20-30%	>30%
17,00%	67,00%	17,00%	0,00%	0,00%	0,00%	0,00%
mean 2,06		var: 0,4		s. dev: 0,63		
4. In the last 10 years, as a percentage of revenue, for external ICT						
0,00%	0-5%	5-10%	10-15%	15-20%	20-30%	>30%
0,00%	83,00%	17,00%	0,00%	0,00%	0,00%	0,00%
mean: 2,17		var.:0,17		s. dev.: 0,41		
5. Planned investment in ICT in next 2 years						
0,00%	0-5%:	5-10%	10-15%	15-20%	20-30%	>30%
0,00%	100,00%	0,00%	0,00%	0,00%	0,00%	0,00%
mean: 2		var: 0		s. dev: 0		
6. Planned investment in external ICT in next 2 years						
0,00%	0-5%	5-10%	10-15%	15-20%	20-30%	>30%
0,00%	67,00%	33,00%	0,00%	0,00%	0,00%	0,00%
mean: 2,33		var: 0,27		s. dev.: 0,52		

Reasons for investment in ICT

	Increasing competitiveness on the domestic market	Increasing competitiveness on the foreign market	Improvement of business processes and control	Following a business trend	Other
mean	4,5	3,5	5,83	5,33	5
var	6,7	6,7	5,77	5,07	1,33
s.dev.	2,59	2,59	2,4	2,25	1,15
median	3	3	3	3	2

Reasons for investment in external ICT

	Concentration on core business	Favorable cost of ext. services	Lack of trained labour	Business connections	Other reasons
mean	4,67	3,67	4,8	2,33	3,5
var	4,67	3,47	5,2	3,47	3,67
s.dev.	2,16	1,86	2,28	1,86	1,91
median	3	2	3	2	--

Labour education

	mean	Var.	s. devijacija
Workers with at least higher education	3	2	1,41
Workers pursuing training	2	0,8	0,89

Management education

	60-75%	75-90%	Above 90%	mean	var	s. dev
Higher	17,00%	33,00%	50,00%	6,33	0,67	0,82

Importance of ICTs in business

	computer	internet	web	LAN	SAP
mean	6,5	5,83	5,33	6,83	5,6
var	0,7	1,77	2,27	0,17	6,8
s.dev.	0,84	1,33	1,51	0,41	2,61
median	7	6	6	7	6

Usage and knowledge of ICT

	YES	NO	mean	var	s. dev.
SOA	60,00%	40,00%	1,4	0,3	0,55
SOA in business	0	100,00%	2	0	0
BRMS	40,00%	60,00%	1,6	0,3	0,55
BRMS in business	0	100	2	0	0
BPS/BPM usage	0	100,00%	2	0	0
Computer training	100,00%	0	1	0	0
R&D	80,00%	20,00%	1,2	0,2	0,45
R&D investment	Up to 1 million kn	2-3 mil. kn			
	80,00%	20,00%	1,2	0,2	0,45

Firm activity

	mean	var	standard dev.	median
Manufacturing	4,75	6,92	2,63	5
Service	4,80	4,70	2,17	5
				%
Wholesale and retail trade	6,80	4,70	2,17	20,00%
Processing industry				40,00%
Other business services				40,00%

Amount of foreign capital in the firm

udio	0,00%	1-20%	mean	var	s.deviation
%	80,00%	20,00%	1,2	0,2	0,45

Education of the respondent

Education	higher	masters	mean	var	s.deviation
%	60,00%	40,00%	2,4	0,3	0,55

Note: N = 150 and values are in the range of 1-7

Profit and amount of foreign capital

Firm profit in percentage of revenue, last 10 years						
loss	0%	5-10%	10-15%	15-20%	20-30%	>30%
0,00%	0,00%	100,00%	0,00%	0,00%	0,00%	0,00%
mean: 3		var: 0		s. dev.: 0		
2.amount of foreign capital						
<10%	10-20%	20-30%	30-40%	40-50%	50%-100%	100,00%
50,00%	0,00%	0,00%	50,00%	0,00%	0,00%	0,00%
mean: 2,5		var: 4,00		s. dev.: 2,12		

Geographic location of the client's firm

	mean	var	s.dev	median
Domestic, region	7	7	0	7
Old EU MS	1	0	0	1
New EU MS	1	0	0	1
world	1	0	0	1

Activity of client forms by economic sectors

	mean	var	s.dev
Agriculture, hunting, forestry, fishing	1,5	0,5	0,71
El. Energy, gas, water supply	2	2	1,41
Financial intermediation	4	8	2,83
Wholesale and retail trade	3,5	4,5	2,12
construction	2	2	1,41
Processing industry	2	1,41	1,41
Mining	1	0	0
Education, health, public services	4,5	12,5	3,54
Other business services and real estate	1	0	0

Expected growth by sectors of IT

	mean	var	s.dev
Network infrastructure	3,5	4,5	2,12
Fixed network	2,5	4,5	2,12
IP network	3,5	4,5	2,12
Radio access network	2	2	1,41
Business ICT solutions	6	0	0
Management services	6	0	0
SI	5	2	1,41
CS	4,5	0,5	0,71
NDI	4,5	0,5	0,71

Strategic motives of foreign owners for investment in Croatia

	mean	var	s.dev
Support for business partners	1	0	0
Expansion in the region	1	0	0
EU projects	1	0	0
Expansion of the existing market in the EU	1	0	0
Entering the EU market	1	0	0
Other	4	18	4,24

Main barriers for FDI in Croatia

	mean	var	s. dev.
Uneducated workforce	1	0	0
High labour cost	4,5	4,5	2,12
Business environment	5,5	12,5	3,54
Undeveloped ICT infrastructure	2,5	0,5	0,71
Poor legislature, legal system, public administration	7	2	1,41
Other	3,5	12,5	3,54

Firm activity

	mean	var	s. dev
manufacturing	4,5	4,5	2,12
services	7	0	0

Note: N = 20. Values are in the range of 1-7

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PLATO VERSUS PLUTOCRACY

JEL classification: B19

Abstract

In “The Republic” Plato primarily discussed the idea of justice, by exposing correlations between human soul and political order. He relates the realm of private property, market relationships, and profit-oriented mind with the lowest social class, which corresponds to the domain of lust and pleasure in human soul. Higher rated social classes or abilities of soul are only responsible for the well-being of society and for the establishment of harmony in human soul. In “Laws” he developed an idea of a permanent training against the domination of excessive pleasure, as the basic condition for setting up a society in accordance with human nature.

The neoliberal concept of economic order not only questions, but silently denies such or similar perceptions of humanity. Emphasizing market as a regulator of all social relationships and human values, it presumes the highest value of greedy accumulation of money, power, or material possessions. Simultaneously, it implies plutocracy as an ideal of social order.

In this paper we intend to discuss that contrast, including the opposition of Keynesianism and Friedmanism in modern economics.

Keywords: human nature, social order, neoliberalism

1. INTRODUCTION

In his recently published book entitled *Keynes: The Return of the Master*, Robert Skidelsky mentioned Plato or Platonism exactly seven times. Each time these names intended to connote an idealized, non-realistic theory or inclination. He used them in accordance with the ordinary way of presenting Plato's philosophy in educational institutions and overviews of so-called "great philosophers" worldwide.

On the other hand, dictionaries define "plutocracy" as "a country which is ruled by its wealthiest people, or a class of wealthy people who rule a country". (Sinclair, 1998, p.1267) Hence, one is most likely to interpret the title of this paper as an opposition between idealistic attitude and ruling of the rich. Does it make sense? Hardly.

But, perhaps, we should not take these usual meanings too literally. For, if one takes a look over the books written about Plato in last 30-40 years – e.g. only by Croatian authors – one would realize that the label mentioned above is an oversimplified misinterpretation of something that could be called "Plato's philosophy". Namely, his thoughts – particularly in his late age – approach human nature in order to deal seriously with its most tricky features, contrary to any sort of unrealistic idealization. Even his "theory of ideas" has nothing to do with idealization. Anyhow, wouldn't it be surprising that pure drive to see things better than they are has caused such a glory and authority over two and half millenniums?

In this paper Plato is not a personification of some attitude or inclination, but the representative of *his own thoughts* related to the topic co-determined by the term "plutocracy" – derived from the ancient Greek *plouto-kratia*: oligarchy of wealth (Liddell-Scott, 1976, p.1432). It's well known that throughout the human history small groups of rich people were ruling from time to time, in different types of social orders – slavery, feudalism, capitalism, socialism. But, in this occasion we are not interested in the rule of the rich in its historical manifestations. We rather intend to focus on plutocracy as an expression of a certain *cultural tendency*, as the rule of "the idea of wealth" or wealth itself. Or, to put it in the contemporary context – as Skidelsky (2009, p.133) interpreted one Alastair Darling's statement – "he seemed to be saying that the fault lay in a money-obsessed culture – one in which money had become the measure of all things". In other words (Ferguson, 2008), the planet Money increasingly overshadows the planet Earth. The ascent of man as a thinker, which took place in last four millenniums, has been replaced by the ascent of man as a banker.

Pascal Bruckner explained the possibility of domination of such a plutocratic drive or passion claiming that money is

"a miraculous consolation. As long as we make efforts to earn, save or spend it, it absorbs all energy, it is self-sufficient, it makes life perfectly meaningful. It's imbued with strong forces, too strong to tolerate any competition. As it is well known to the Church, it's the only rival to the God, equally able to embrace the manifold of the world in its unity, to limit its expansion. To tell the truth, it is the only absolute accepted in the age of relativism." (Bruckner, 2004, p.31)

Culture obsessed with *wealth or money* as a universal measure or the new absolute *versus* Plato's or genuine Platonic ideas about the culture based on taking into account the wholeness of *human nature* – that is exactly the topic of this paper.

2. ECONOMY, ECONOMICS, AND ECONOMISM

Would it be surprising if one raise an objection that there is no *versus*, i.e. no opposition between obsession with money and human nature? For, more than three centuries ago western societies started being dominated by people like John Law, obsessed with making money, with the world market, banks, investments, stocks and stock-exchange, insurance, etc. – and nowadays such a tendency is booming. Therefore, it's getting harder to disagree with Karl Marx's statement, that economic relationships determine all other aspects of life. One might conclude that we are predetermined by nature to strive for wealth more than for anything else, that we are first and foremost interminably accumulating, i.e. plutocratic beings.

However, should millenniums when it was not the case be overlooked, epochs when people were occupied with some other ideas or values – religious, military, ethical, aesthetic? Times when economics as a science did not exist, when economy was considered as a pure means of survival (*oikonomia*: management of a household or family) (Liddell-Scott, 1976, p.1204), and wealth as a desirable support, not as a final goal? Recent publicly widely discussed expectations from economics suggest that such epochs slipped one's attention.

„Today, wealth increase is the only goal western society has to offer. The previous great competing objects of striving – military glory and eternal bliss – are radically out of favor.” (Skidelsky, 2009, p.134)

It seems to be taken for granted among general people that the same human activity which allegedly caused the global crisis, together with the accompanying science, can solve it. Not only media, but almost all social institutions elevate the *economic* standpoint as the most relevant, unavoidable in discussing any problem in this world. In Bruckner's words:

“Capitalism obviously desecrated everything: customs, habits, beliefs – except capitalism itself, which avoided skepticism towards great conceptions of the world. The triumph of economism, namely the elevation of a single discipline into absolute science, the mother of all sciences, that aspires, like in Marx's example, to rule social, political, and intimate life, and, starting from it's own postulates, to restructure the whole universe.” (Bruckner, 2004, p.90-91)

The most discussed problem in recent economics is the world market: should it be regulated by state governments or left to itself? The related questions are: How much is the market predictable? Is it able to perform self-regulation? It's evident that the topic is not man, human being as such, but one of social

constructions lifted to the metaphysical level. Market is the subject of interest as the most vivid and the most important entity in the world, omnipresent and omnipotent.

Should such an elevation be taken for granted as the only, or perhaps the most progressive, option in the course of history? What are the conditions of possibility for that elevation? Does it assume some specific perception and comprehension of humanity and of human togetherness, strange to all previous historical epochs?

Philosophers like Friedrich Nietzsche, Martin Heidegger, Eugen Fink made it clear that economism was unavoidable in the Modern History, due to domination of the new scientific method and of the idea of unlimited man's freedom (regarding God and nature). Relying on numbers, images, and symbols – as Damir Barbarić (2001, p.13-39) interprets – new sciences have introduced radical relativism into human consciousness, a universal and endless replaceability. On the other hand, starting from the Renaissance, man has perceived himself as the measure of all things, absolutely unrestrained – but in the meantime he has shown incapacity to deal with such a freedom: after becoming saturated, he escaped from it into the passivity of the mass-behavior and simultaneously into the “hectic restlessness of uncontainable work and production”. These controversial, chaotic attitudes and circumstances – “the whirl of infinity” – have caused the reduction of society to the never-ending process of universal trade and exchange, i.e. *market*.

Hence, *plutocracy* is the mental and the social expression of such a historical constellation, and *economism* is the corresponding theoretical reaction. What about economists? Do they take that constellation as a normal, acceptable – maybe even desirable – condition of the mankind?

The well-known fact is that we live under the domination of neoliberal economic theory inaugurated half a century ago by Milton Friedman, in his programmatic work *Capitalism and Freedom*. In that period of time, until early 80s, widely accepted economic worldview was the one represented by John Maynard Keynes. The recent crisis of the world market made him actual again, as the most prominent Friedman's opponent. Is the opposition between two of them a sufficient theoretical background for discussing and maybe even solving the crisis? Is the solution to the market crisis the recovery and stabilization of the market or perhaps repositioning the market in the hierarchy of man's priorities?

3. FRIEDMAN VERSUS KEYNES-SKIDELSKY

Let's start with Friedman's basic teaching. He took for granted that capitalism, as a huge profit-making mechanism, should and is able to take care of the wholeness of human lives under the condition that politicians leave the market function spontaneously. Plutocracy as an obsession with amassing, the *spiritus movens* of such a mechanism, was his unquestioned starting position. Average

hominids, i.e. social individuals, were not perceived as distinctive, mysterious, unique beings, but as “human capital” (Friedman, 2009, p.102) or “human resources” (ibid, p.107), who serve the running of such an industry. Free market is a guarantee that their other individual goals, purposes, and freedoms could be realized in societies worldwide. (ibid, p.200) All kinds of “collective states” are considered to be a “horror”. (ibid, p.201)

“Economic freedom is an end in itself. In the second place, economic freedom is also an indispensable means toward the achievement of political freedom”. (ibid, p.8) “Indeed, a major aim of the liberal is to leave the ethical problem for the individual to wrestle with it.” (ibid, p.12)

Such a teaching begs for some questions. First of all, should some kind of obsession be left to determine the wholeness of human existence? Aren't we somehow rational beings by nature? Friedman admits that we are, primarily in foreseeing future events at the market and in being able to calculate future risks and to act accordingly – but, inside of his horizons, our rationality doesn't seem to be strong enough to deal with obsessions, to rule over them. Or, perhaps, thirst for infinite accumulation should be taken as a tolerable, even desirable, useful or noble obsession, which should not be questioned?

Secondly, does a free market exist at all? Has it ever existed? Do restrained or powerless governments prove the lack of market control – usually carried out invisibly by powerful politicians, intelligence agencies and media owners in tandem with omnipotent multinational companies? In addition, should one ignore the hidden world oligarchy of extremely rich ancient bankers' families intensively involved in semi-secret associations, like Bilderbergs, Trilateral Commission, Council on Foreign Relations, and many others? Perhaps they are not interested and not active in market regulation? Isn't there, from day to day, more and more evidence that at least in last several centuries the world events were and still are stage-managed by rude plutocrats? In *The Shock Doctrine* Naomi Klein offers a lot of well documented proves that they are. She announced them in this way:

“This book is a challenge to the central and most cherished claim in the official story – that the triumph of deregulated capitalism has been born of freedom, that unfettered free markets go hand in hand with democracy. Instead, I will show that this fundamentalist form of capitalism has consistently been midwived by the most brutal forms of coercion, inflicted on the collective body politic as well as on countless individual bodies. The history of the contemporary free market – better understood as the rise of corporatism – was written in shocks.” (Klein, 2007, p.18-19)

Thirdly, could and should human beings be brought down, reduced to a sort of capital or resource – like real estate or natural raw-materials? On the other hand, is it really our natural existential position to be placed at somebody's disposal, to be on call, available for some usage, perhaps like tools, sand or electricity?

Fourthly, are we truly self-made, autochthonous social individuals and simultaneously the only ones who should take responsibility for ethical issues?

Do we grow up and pursue our goals and purposes intellectually and emotionally independently from others? Is collectivism avoidable at all? Isn't some sort of it inherent to the human nature? On the other hand, should social institutions and collectives feel ethically irresponsible? Basically, does it make sense to speak about ethics at all in such an imagined extremely individualistic context?

Finally, how can any kind of freedom be an end in itself – freedom for the sake of freedom? And at the same time a means for some other sort of freedom. Does it make a logical sense? And, in general, are economic and political freedoms sufficient to offer us a fulfillment of living – or we find them desirable as means for some other, more essential, perhaps non-economic and non-political goals?

It seems that Friedman's attempt to justify plutocracy left too many open questions, because his statements are based in too many prejudices or unconvincing evaluations. Nonetheless, his neoliberal theory was widely accepted not only by rich plutocrats, but also by scholars, namely economists who relayed on mathematically supported self-confidence in predicting the future of the market. Five years ago some of them, acting as bankers, made some crucial mistakes, and the market did not respond with an expected self-regulation. The recent crisis made visible some systematic theoretical errors and limits of our rational capabilities to foresee the future – surprisingly, much more visible than 40 years of ethically unacceptable, disastrous implementation of Friedman's economic ideology worldwide.

What about ideas of Friedman's opponent – Keynes? Let's evoke some of them following his esteemed biographer Skidelsky. In his opinion, Keynes was "the most brilliant non-economist who ever applied himself to the study of economics". (Skidelsky, 2009, p.55)

"Keynes was a moralist. There was always, at the back of his mind, the question: What is economics for? How does economic activity relate to the 'good life'? How much prosperity do we need to live 'wisely, agreeably, and well'? [...] Broadly, Keynes saw economic progress in freeing people from physical toil, so they could learn to live like the 'lilies on the field', valuing today over tomorrow, taking pleasure in the fleeting moment." (ibid, p.xvii) His additional question was: "If growth is a means to an end, what is the end, how much growth is 'enough', and what other valuable human purposes may be pre-empted by a single-minded concentration on economic growth?" (ibid, p.ix)

Obviously, Keynes's approach to economics and economy was pretty different from Friedman's. His standpoint was *outside* the economic science and all economic activities – primarily based in ethics. His ambition was to answer questions about the position and the role of the economic dimension of living in the broader context of human existence. In order to establish a "harmonious society" (ibid, p.190), he was teaching that

"the pursuit of money – what he called 'love of money' – was justified only to the extent that it led to a 'good life'. And a good life was not what made people better off: it was what made them good. To make the world ethically better was the only justifiable purpose

of economic striving.” (ibid, p.133) Therefore, “capitalism is merely an instrument. Liberty and justice, for example, are not ‘goods in themselves’ but means to the realization of intrinsic goods.” (ibid, p.138)

In order to put capitalistic economy in the right course, Keynes recommended avoiding of “inescapable uncertainty about the future” (ibid, p.xv) by introducing “continuous role of government” (ibid, p.xvii) in the regulation of the market. In his opinion – opposite to Friedman’s – future risks cannot be calculated in advance, because some amount of unpredictability always remains. Hence,

“prudence in face of the unknown is the key to Keynes’s philosophy of statesmanship.” (ibid, p.158) In addition, he “looked to an ‘educated bourgeoisie’ to set political standards to the community” (ibid, p.159), he “thought that, with the separation of management from ownership, public motives would increasingly come to dominate in the conduct of large enterprises. He did not foresee that the private interests of managers would come to take precedence in both private and public spheres”. (ibid, p.166) Finally, “he treated justice instrumentally, as contributing to a ‘contented’ society. In this respect, he comes closest to the idea of justice as ‘fairness’. By ‘fairness’ he usually meant the social arrangements generally accepted in the society he best knew, Britain.” (ibid, p.147)

Such Skidelsky’s interpretations and comments of Keynes’s thoughts are supplemented with some more profound critical objections.

“Keynes’s speculations on the theme of the ‘love of money’ are the nexus that binds together his ethical theory and his economic theory. But the coherence is only partial. His economic theory attacks the hoarding aspect of ‘love of money’, but not the priority given to moneymaking. [...] So, one has put up with what is ‘faul’ to get quickly to ‘fair’. But a life dedicated to a ‘faul’ set of values cannot be an entry ticket to a life with a ‘fair’ set.” (ibid, p.146)

Therefore, he calls Keynes’s speculations “ethical utopia”. (ibid.) Later, after listing Keynes’s basic ideas, he states:

“Having said this, it is easy to see that he might have been deluding himself. He envisaged a modern capitalist economy governed by a Platonic ideal, and gentlemanly codes of behavior. But once the capitalist genie is let out of the bottle it cannot be pressed into the service of pre-modern ethics of a good life and pre-modern codes of behavior. The good life in the classical sense presupposes that human desire has some ultimate end, or *telos*, whereas modern economic theory and life presuppose that it is insatiable. As regards behavior, he took for granted a class-based system of values which economic progress was undermining. These were contradictions which Keynes never fully faced.” (ibid, p.153)

On the basis of experiencing social life more than half century after Keynes’s death, Skidelsky expressed two key-insights of his own:

1. “Today we would say that the Moore-Keynes goal of maximizing the quantity of goodness in the universe cannot provide an agreed criterion for economic action, because rational people disagree about what is good. Economics therefore is bound to take wants as data and treat the maximization problem in terms of wants satisfaction. This is a problem for any attempt to marry ethics and economics. We can ease it, but not remove it entirely,

by constructing indexes of 'well-being' which contain 'quality-of-life' measures." (ibid, p.140)

2. "An economy devoted to the manufacture of goods may be said to have a natural terminus when wants are satisfied. Advertising may postpone it, but it cannot remove the day of fulfillment. But an economy which makes money into goods has no such cutoff point because, as Keynes said, abstract money will always seem more attractive than concrete goods. Our imaginations race ahead of our senses, filling us with unsatisfied desires, and money is the continuous stimulator of our imagination, creating a perpetual sense of dissatisfaction with what we already have." (ibid, p.145)

Finally, as a sort of solution of the problem, he states that "we need a new synthesis, in which government is accepted as non-benevolent, but market forces are not thereby totally rehabilitated." (ibid, p.173)

4. SPECIFYING THE PROBLEM

Yes, we would agree with Skidelsky, we need a new synthesis in order to establish – as Keynes calls it – harmonious society. But, what kind of synthesis? Both of them are concerned with the relationship between markets and governments as the key-factor in solving broader problems – e.g. just mentioned relativism of values and the lack of limits in striving for abstract wealth and in satisfying endless desire. Weren't they perceived as the biggest obstacles not only in taking care of ethics at the social level, but also in an individual experience of meaningful living?

Widespread and radical relativism and the lack of limits, leading into nihilism, were the topic of Nietzsche's thoughts, almost century and half ago. His deep insights in dimensions of the modern crisis of humanity made it clear that pure economic problems were just a particular aspect of much wider and more profound crisis of the "working culture" itself. In the aphorism entitled *Leisure and idleness* Nietzsche (1976, p.259) states:

"Even now one is ashamed of resting, and prolonged reflection almost gives people a bad conscience. One thinks with a watch in one's hand, even as one eats one's midday meal while reading the latest news of the stock market; one lives as if one always 'might miss something'. 'Rather do anything than nothing': this principle, too, is merely a string to throttle all culture and good taste. [...] If sociability and the arts still offer any delight, it is the kind of delight that slaves, weary of their work, devise for themselves. [...] Soon we may well reach the point where people can no longer give in to the desire of *vita contemplativa* (that is, taking a walk with ideas and friends) without self-contempt and a bad conscience."

The attentive lecture of at least Nietzsche's works would have helped both Keynes and Skidelsky to realize that, even though the powerful bankers, managers and politicians, together with the leading economists, might shape destinies of billions of people, their deeds are *not the cause*, but an *expression* of the contemporary crisis, and hence *cannot* solve it – no matter how much ethically aware or benevolent they are, and how much they let each others act independently. Even if they were the cause of the corruption of humanity, does it imply that they are able to correct it?

It seems that the “working culture” itself, as a sort of unnatural social disharmony, should be taken as the core of the problem. But, in order to face the problem appropriately, one should ask about the condition of possibility not only of a workaholic culture, but even more, of *any* culture in which *any* kind of obsession, i.e. lust or passion, rules over reasonable ideas and evaluations. Where to search for it, if not in human nature? Some deeper insights might prove that the whole context of contemporary living, including plutocracy, is perhaps just a new modification of something that was historically and essentially *déjà vu*.

Another Nietzsche’s aphorism, entitled *How things will become more “artistic” in Europe*, suggests that it’s exactly the case. The aphorism deals with the more profound and widespread phenomenon – man’s obsession with acting, improvising, and experimenting with himself. Having started in the Periclean age in Athens, it was suppressed in the Middle Ages, and revitalized in modern times, in America as well as in Europe. What are its social consequences?

“For what is dying out is the fundamental faith that would enable us to calculate, to promise, to anticipate the future in plans of such scope, and to sacrifice the future to them – namely, the faith that man has value and meaning only insofar as he is *a stone in a great edifice*; and to that end he must be *solid* first of all, a ‘stone’ – and above all not an actor!

To say it briefly (for a long time people will still keep silent about it): What will not be built any more, is – a society in the old sense of that word; to build that, everything is lacking, above all the material. *All of us are no longer material for a society*; this is a truth for which the time has come.” (Nietzsche, 1976, p.303-304)

It seems that the source of the global confusion and crisis has its roots deeper in us, even beyond the modern workaholism: we don’t hesitate to ignore all natural boundaries, because “the individual becomes convinced that he can do just about everything and *can manage almost any role*” (ibid.). Hence, we became again, like in ancient times, unpredictable actors, improvisers unable to perform any long-lasting social role – but now being simultaneously exposed to “breathless haste”, which deprives us of true cultural values, taste, delight, even any serious thinking. Extreme relativism of social roles imbued with radical deprivations – can it offer or create anything good?

But maybe Nietzsche was wrong! He claimed all of that long time ago. However, wouldn’t it be hard to prove that his diagnosis isn’t nowadays even truer? For, it’s impossible to deny that man today is increasingly and systematically cut off from too many constitutive elements of traditionally perceived humanity. Hence, a “new synthesis” should perhaps primarily tend towards connecting confused individuals, tired workers-actors, with their human essence or authentic nature, and, in addition, towards joining such refreshed beings in some sort of originally human community. Could it be achieved by synthesizing somehow the existing governments and the market? Is it primarily a political-economic task?

Around two and half millenniums ago – exactly in the Periclean age, in some essential aspects very similar to ours – there was a philosopher who inspired Nietzsche and some others to deal with such tricky traits and

deprivations of human nature and their mental, intellectual, and social consequences. He was searching not only for the *origin* of man's obsessions, but also for the long-lasting *prevention* of social problems caused by "artistic" and furious lusts or attitudes.

5. PLATO

According to Plato's basic insight into human nature, we are not initially and primarily rational beings, but beings exposed to pain and pleasure. Our spontaneous behavior is irrational escaping from pain towards pleasure. The most painful feeling is the one of the limitedness of our lifetime, caused by the awareness of our mortality. We don't know what death is, hence we are afraid of it. We only know that it's some sort of stiffness and resting of our body, and we feel that aging makes us more and more inflexible and immovable. Therefore, even as kids we instinctively try to escape from it into the pleasure of frantic moving and shouting, striving for permanent pleasure if possible.

Pleasure itself is furious, it tends to get rid of any form or limitation, and drives towards absence of law, wantonness, self-admiration, trendiness, shamelessness, muddle, and self-conceit. At the social level, the domination of pleasure leads necessarily to injustice.

In *The Republic*, Plato (Burnet, 1900-1907, vol. IV) positioned the people ruled by lust and pleasure – the vast majority – into the third social class: only they were allowed to have private property and to enjoy wealth, but they were strictly separated from any kind of governing city-state and of making decisions about social life as a whole. In that way plutocracy could never be socially established, because the rich would be subjected to those who, in the process of educational selection, showed higher and broader abilities: to protect or to rule the state. The constitution of their souls should become free of lust, greed, fear or immoderate pleasure. The rulers should be those who are *panoptikoi* – able to comprehend the wholeness and the hierarchy of human ideas, feelings, attitudes, and activities, and to rule by giving each of them an adequate importance and role. Doing so, they would establish justice: everybody's engagement in a domain of his/her abilities and competencies. More precisely:

"Justice of a polis does not simply consist of everybody's performing his own tasks – that is, Socrates says, an outward doing one's own, and only the image of justice. The heart of justice is achieved if each individual, doing his own, becomes reasonable, true, and just. It means that inner order, harmony, friendship, and interconnectedness of the whole – in one word: justice and the beauty of the soul – does not rescue or support only someone's job which corresponds to his natural abilities, but first of all him personally, as the actuality of his own nature, established by the performed job." (Šegedin, 2012, p.100)

In his latest work, *Laws*, Plato (Burnet, 1900-1907, vol. V) presented the way how to intensify basic educational efforts in order to overcome drive towards excessive pleasure. In accordance with the ancient, almost forgotten practice, he found emotional influence – persuasion and instigation – more efficient than rational one. During repeated celebrations filled with divine gifts – like wine and music-dance full of rhythm and harmony – citizens should exercise how to fight

with pleasure in a tricky way: not by escaping from it, but by facing it in playing festal games controlled by older and reasonable ones, enjoying it, and, simultaneously, restraining it. The expected outcome should be fearlessness in accepting our own mortality, and, in addition, modesty, shyness, tranquility, and everything else contrary to what was already mentioned as a destructive trait of pleasure. In other words:

“Plato’s demand, on which all his efforts in *Laws* are focused, is: man should be strong enough to live through his lifetime ‘in conformity with the core of his nature’ (804b1), i.e. being a god’s toy – what truly is his best trait – he should live ‘playing the most beautiful games’ (803c). [...] Playing game really is the hardest and the most serious activity, it is exactly the biggest and the most difficult war which alone trains us for genuine fearlessness and complete virtue. In game one experiences entire mysteriousness and wonder of his own nature, and exercises courage to endure essential ignorance and to spend life in harmony with such a nature. Incurably and inevitably mortal, he awakens and develops in himself – by playing game – shyness, which prevents him from abandoning his nature in the case of intoxication with the seductiveness of pleasure. Life in game – as an imitation of god’s serenity during withstanding man’s essential ignorance and during living without retreat man’s mortality – being ‘the best life’ is ‘the truest tragedy’ and ‘the most brilliant drama’ (817b).” (Barbarić, 1986, p.80)

Establishing our own natural attitude by playing hard and beautiful games; being exposed to pleasure but not being overcome by it; being permanently at war with ourselves in order to become brave enough to face reality – all of that *versus* unconditional surrender to fear and obsessive search for pleasure in escaping from our genuine nature: escaping into “theatrocracy” (Plato) or tireless improvising and workaholism (Nietzsche), as well as – into plutocracy.

6. COMPARISONS

Close to the end of his book Skidelsky discusses how to educate future economists. He recommends to educators:

“They would take as their motto Keynes’s dictum that ‘economics is a moral and not a natural science’: that the economist should be ‘mathematician, historian, statesman and philosopher... in some degree’, and that ‘no part of man’s nature or his institutions must be entirely outside his regard’”. (Skidelsky, 2009, p.189)

Keynes himself was all of that, but maybe not in a sufficient degree, because his social ideas were obviously utopian. His idea of justice was geographically and essentially pretty limited, his expectations from managers separated from ownership were proved unreasonable, and his notion of “educated bourgeoisie” remained inadequately determined. And above all, one should agree with Skidelsky’s objection that living under the rule of immoderate, plutocratic drives and pleasures cannot lead to the rule of moderation and modesty, namely to living “wisely, agreeably, and well” – it simply does not match with human nature. Basically, Keynes let Plato’s lowest class (*The Republic*) or untrained citizens (*Laws*) rule the state, expecting from them some kind of self-regulation, namely, self-transformation into something opposite from what they are.

Friedman had similar expectations from the world market: no matter how people behave, what they are obsessed with, what mistakes they make – the free market should spontaneously correct all of them and establish a sort of ethically neutral economic harmony. Therefore, compared with Plato's ideas, Keynes might be called a naïve idealist; but compared to the doctrine of Friedman's Chicago School, he might be called a deep and refined humanist.

"The Chicago School strain of capitalism does indeed have something in common with other dangerous ideologies: the signature desire for unattainable purity, for a clean slate on which to build a reengineered model society. This desire for godlike powers of total creation is precisely why freemarket ideologues are so drawn to crises and disasters. Nonapocalyptic reality is simply not hospitable to their ambitions... It is in these malleable moments, when we are psychologically unmoored and physically uprooted, that these artists of the real plunge in their hands and begin their work of remaking the world." (Klein, 2007, p.20-21)

Anyhow, the point of contact in the teachings mentioned above – except Friedman's – is emphasizing *immodesty* as the main problem, and the role of *education* in solving it. The main distinction between Plato and Keynes-Skidelsky lays in the positioning of the source of the problem: two of them place the main confrontation between market forces and governments; Plato places it inside human nature – between reason and drives, self-control and surrendering to pleasure. In his opinion, the essential purpose of educational training is to encourage and to enable human reason to fight permanently and successfully with our weaknesses, primarily with hedonism, which is the root, among other things, of plutocracy – in human soul as well as in society. Keynes, on the other side, was too tolerant towards unrestrained hedonism: he didn't realize its long-lasting destructive and irreparable impact – at the individual and at the social level. Skidelsky is aware of all of that, but still thinks that a shift in political-economic relations might overcome plutocratic drive and solve the crisis successfully.

One might ask: Is it really important who appears to be a temporary master on the world stage – businessman, politician, or average consumer – if each of them is submitted to the domination of pleasure: the obsession with infinite profit, unlimited power, unending consumption, mixed with each other? Isn't such a global "society" necessarily a vicious circle of competition, manipulation, ruthlessness, aggression, deception, threatening, etc. in a public life, and confusion, stressfulness, illusive enthusiasm, exhausting fight, disappointment and depression, superstition, fruitless consolation, etc. in an everyday life of individuals?

Is such an obsessive and hectic life together with its variations a desirable or at least our single option? Do we have any publicly widely accepted, clear idea of some essentially different paradigm of living – based not in dreams, but in human nature? Nevertheless, it doesn't seem hard to realize that the only way how to oppose the crisis of humanity – which includes economic, political, environmental, identity crises, crisis of confidence and self-confidence, of marriage, family, etc. – is the establishment of such an *education* which is directed towards *overcoming all immoderate tendencies* in human souls by

making people brave enough to face finiteness and natural limitations of everything we deal with, including ourselves.

Hence, plutocratic drive inside and outside of us should not be controlled for the sake of some other form of immoderate obsession, but in order to introduce the opposite paradigm of living, which primarily includes permanent fighting for – always temporary – establishment and re-establishment of *right measure* in human souls and in society as a whole. How to control plutocracy? Should we, at least for the beginning, obsessively fight with it?

Pascal Bruckner offered an answer in his awarded book *Misery of Prosperity. The Religion of Market and Its Enemies*:

“To be an ‘anti-capitalist’ first of all means to stop being obsessed with capitalism, to think of something else. *Instead of being against, why not to step aside, to get out of the way?* We do it by changing the signs of luxury, at least individually: free time instead of big salaries, meditation instead of hectic manner, spiritual life instead of mercantile fever, small communities instead of wide world, isolation with chosen friends instead of loneliness in crowd.” One should “validate as higher everything what doesn’t strictly belong to the category of usefulness, uncountable goods: poetry, love, erotic, contemplation of nature, solidarity, everything what surpasses man, what lifts him up, releases him from his narrow-mindedness, his monetary mediocrity, his maniacal compulsion to accumulate.” (Bruckner, 2004, p.142-143)

Couldn’t this be taken as an unintentional description of the members of Plato’s two higher social classes from *The Republic* or well-trained citizens from *Laws* – who let the majority of people remain too weak to oppose plutocratic lust, but who *didn’t let them rule* the city-state?

7. CONCLUSION

Let’s ask again: If we value Plato’s, Nietzsche’s, Bruckner’s or similar ways of thinking which emphasize fighting for the establishment of moderation and measure as a strange and useless, in this moment globally inapplicable idealization – what remains? It’s evident that there are many “realistic” options left – but all of them *accept status quo*, either explicitly or implicitly, either being aware of it or not. For, all ideas of change and reform which do not *touch and try to cut off at the roots* of the problem, make it less visible and indirectly endorse it: economic ideas, as well as historical, technological, political, philosophical, educational, environmental, etc. Doing so, they – mostly unintentionally, but efficiently supporting all those who intentionally manipulate people’s mind and imagination – inhibit us in facing natural puzzles, challenges, and tasks related to experiencing and developing our authentic humanity. They introduce more and more confusion, disorientation, and unrealistic expectations in individual souls and public opinions, transforming plutocracy into “idiocracy”.

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**GERMANY'S U-TURN IN ENERGY POLICY:
HOW WILL IT AFFECT THE MARKET?**

JEL classification: L13

Abstract

In Germany the performance of opening the electricity markets proves to be poor. While the sector's productivity nearly doubled, the customers were left out in the cold. In actuality, the generated redistribution mass remained in the firms. There, the management used the threat of competition as an instrument for rationalisation and for the moderation of wage growth, while it simultaneously and successfully made an effort to circumvent the market competition. In the end, due to the established oligopolistic structures profits approximately quadrupled.

However, at present there are indicators for a change in the market structures, brought about by a new political framework and the U-turn in Germany's Energy Policies in the aftermath of Fukushima.

This paper will analyse the market's development based on the most recent data from Germany's industry statistics. It also aims at explaining these findings and discussing the structural effects of the new environment.

Keywords: energy policies, imperfect markets

1. THE PERFORMANCE OF GERMANY'S ELECTRICITY MARKETS

In 1998, as part of the EU's Common-Market programme, Germany opened its Electricity Markets. By doing so, German decision makers were convinced of the logic of liberalisation: electricity suppliers, which had formerly been operating as state controlled regional monopolies, were then confronted with competition for the first time. Taking this into account, they were expected to generate gains in productivity and enhance the redistribution mass on behalf of the customers. In the end, a reduction in electricity prices as well as a strengthening of the overall international competitiveness of Germany's industry would result.

For example, a price reduction of 20 up to 30 per cent was considered realistic by Germany's former Minister of Economics (Rexrodt cited in Handelsblatt, 1998). However, as Bontrup and Marquardt (2011) pointed out, reality looks quite different.

1.1. Stylized Facts of the Liberalisation

The following data are primarily based on the German industry statistics provided by the Federal Statistical Office. The data reflect the most recent status, which in most cases regards the year 2010, and they concentrate on companies with a key focus in adding value to electricity markets.

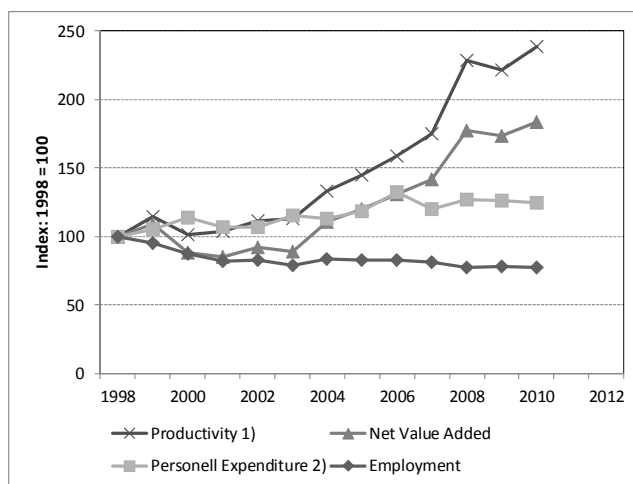


Figure 1 Productivity in the Electricity Market

Notes: 1) Net Value Added per Employee; 2) per Employee

Source: Federal Statistical Office and author's own calculations

Regarding the productivity, the liberalisation was relatively successful (see Figure 1). Between 1998 and 2010 employment was reduced by about one fourth, i.e. by 58.000 persons in this sector. In the meantime the net value added increased by 77 per cent, leading to a more than doubled labour productivity. Although the remaining employees added more than twice as many values as before, this improvement was only passed on to them in parts. Personnel expenditures per employee merely rose by one fourth.

In principal, the remaining redistribution mass could have been assigned internally to the shareholders or externally to the suppliers of the electricity companies, the state or the customers. Indeed, externally especially the suppliers of coal and gas asked for significantly higher prices. Until the end of 2010 coal prices more than reduplicated while prices for non-liquid gas were five times higher than in 1998 (see Bontrup and Marquardt, 2012b, p.164). Moreover, the state continuously increased its dues.

In reaction to this cost-side and administrative impulses, electricity companies demanded higher prices (see Figure 2). The prices paid by the German industry increased from 1998 until 2010 by approximately 30 per cent. From 1998 until 2012 a growth rate of 50 % occurred. But, having filtered out the price components which were caused by the state, from 1998 until 2010 a decrease of about 5.5 per cent can be observed. With respect to the prices private households had to pay, the dynamics was quite similar, even though a smaller reduction remained after adjusting for the administrative components (see Bontrup and Marquardt 2012b, p.120).

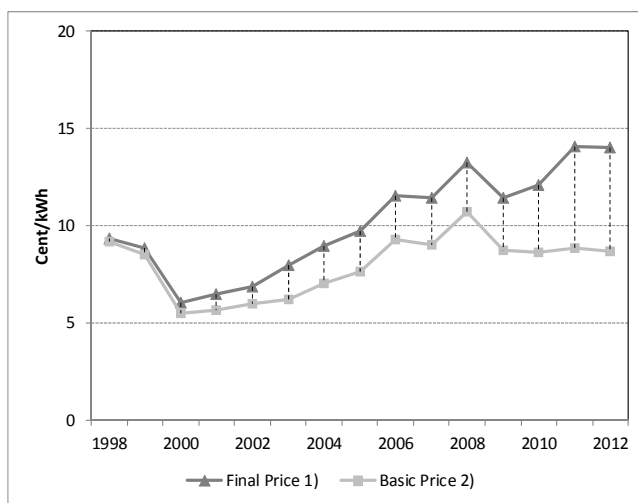


Figure 2 Electricity Prices paid by German Industry

Notes: 1) excluding VAT; 2) including costs and profits of the suppliers, excluding all administrative components

Source: BDEW, 2013

However, regarding the described improvement in productivity, even the adjusted price development is completely disappointing, since it does not only reflect remaining cost-side stimuli passing through the prices, but also an aggressive price-setting by the electricity suppliers in order to raise their own profits (see Figure 3). Between 1998 and 2010 the net operating surplus of the electricity sector in Germany grew by approximately 400 per cent compared to 50 % in the overall economy. Moreover these profits were scarcely transferred into investments but rather used for dividend payments as well as for mergers and acquisitions. Hence, against all odds, it was the shareholders who predominantly realised the gains of higher effectiveness and not the customers, as initially intended.

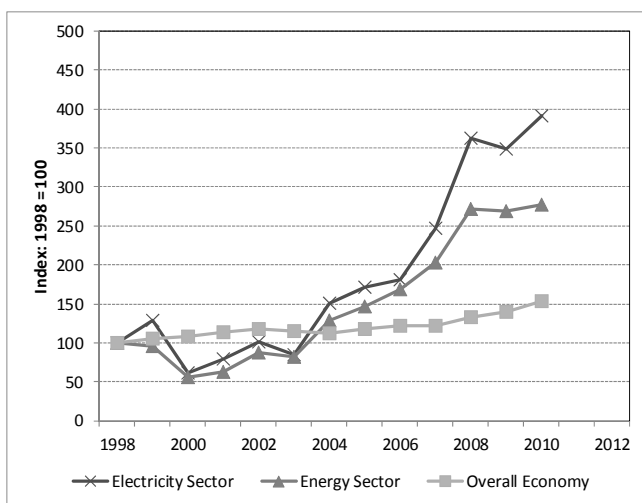


Figure 3 Development of Net Operating Surplus

Notes: The Net Operating Surplus was calculated as the difference of Gross Value Added – Depreciation – Personnel Expenditure.

Source: Federal Statistical Office and author's own calculations

1.2 Causes of the Deficits

The main reason why customers were deprived of the advantages of higher productivity was a market failure resulting from the firms' strategy in combination with deficits in the market regulation (see Bontrup and Marquardt, 2011, Chapter 2).

While on the one hand the management internally used competitive threats as an instrument for rationalization and moderation of the growth of wages, it on the other hand successfully aimed at circumventing the market competition.

When Germany opened the electricity sector, the nine regional monopolies, which had been established before, soon started to merge. From 2002 onwards, the so called “Big-4” (E.ON, RWE, EnBW and Vattenfall) remained in the market as the big players. They dominated the process of electricity generation by temporarily owning about 90 per cent of the market’s capacity (see Bundesregierung der Bundesrepublik Deutschland, 2009, p.2). Furthermore, they controlled the grid and used this to exclude competitors from their own regional submarket by artificially high fees for the transmission of electricity. Additionally, they held capital participations in more than 300 municipal electricity suppliers and thus had important influence on their own competitors’ strategies.

This development was permitted by deficits in regulations. To start with, the German competition law was too weak to prevent the process of mergers and acquisitions in the beginning. Secondly, exploiting the grid was made possible by a unique path German policy makers had chosen. Instead of a state controlled regulation, they opted for a non-effective, self-regulative form of the market’s participants.

In the meantime, the framework has changed. Regarding the process of concentration in the preceding years, a limit had been reached. From then on, the antitrust agency has been operating restrictively when evaluating further mergers and acquisitions. Furthermore, in the light of an antitrust lawsuit E.ON did not only have to sell generation capacity, but also divested most of its acquisitions. With respect to the deficits in regulation German decision makers were put under pressure by the EU Commission. Germany was forced to implement a state controlled regulation authority operating with a “revenue-cap” for the grid operators (see Bontrup and Marquardt, 2010) as well as a legal unbundling of the value-added steps. This led to a massive decrease of transmission fees and to a partial selling of their grid by the “Big-4”.

2. ELEMENTS OF THE U-TURN IN GERMANY’S ELECTRICITY POLICIES

In view of the breakdown of the nuclear reactors in Fukushima, the German policy makers reversed their stance on atomic power (see Bontrup and Marquardt, 2012a). Only seven months after the government had agreed on the extension of the allowed operating time of nuclear plants, they decided to abandon the supply of electricity by atomic energy in predetermined steps completely. In 2022 all the nuclear power plants are bound to be deactivated. In addition, eight reactors were disconnected from the grid immediately.

This policy, called “Energiewende” (i.e. “Energy Turnaround Concept”), requires strenuous efforts, especially in building up renewables as well as flexible gas and steam power plants. In detail, this policy concept will stipulate an accelerated extension of renewables up to at least 35 per cent of electricity production in 2020 and from then on 15 per cent points more every ten years until a level of 80 per cent will be reached in 2050. Furthermore, a more dynamic extension of the grid will be needed, especially in order to connect the on- and off-shore wind turbines, which are primarily located in the north of Germany, down to those regions in the central and southern part of Germany, where the industrial producers and the majority of the population are concentrated.

The extension of the renewables is fostered by a system of subsidies in combination with a purchase commitment by the net operators (see Bontrup and Marquardt, 2012a, p. 29-35). The state has fixed a purchase price for each technology and for every kWh of electricity, usually guaranteed for the next 20 years by law. The price has to be paid by the operators in advance. Furthermore, the operators are legally obligated to priorly buy “green electricity”. Afterwards the difference between the given purchase price and the current price at the electricity exchange is passed on to the customers via the consumers price of electricity. Hence in the end the customers bear the burden of the turnaround concept.

In order to compensate for different investment risks and statuses of technological progress of the distinct generation technologies, the subsidies vary. They also vary in time, depending on the date of installation: the sooner the capacities are installed the higher the price will be. Depending on the expansion of renewable energies, the guarantee price can discretionally be changed for new investments.

3. FORMATION OF GERMAN WHOLESALE ELECTRICITY PRICES

Customers normally buy their electricity at retailers. Nowadays, each household and each firm is able to, on average, choose between 85 suppliers. The degree of competition at this stage of energy supply is classified as satisfying by Germany's Monopoly Commission (see Monopolkommission, 2011). Many retailers are municipal suppliers with none or at most limited generation capacities. They therefore have to buy most of the electricity at the wholesale markets either directly from the producers or indirectly via the energy exchange. The demanded price for their customers is calculated according to this purchase price.

In the past, most of the electricity has been sold directly by means of long-term bilateral arrangements or by OTC-arrangements with intermediaries. Meanwhile, the energy exchange is gaining relevance. Due to the new generation environment (compare below) retailers increasingly prefer the flexibility in

purchasing at the exchange. They usually engage in future contracts, calculating the expected electricity demand at the date of the contracts' maturity. Afterwards some fine-tuning can be done at the exchange via day-ahead purchases.

Now, a new environment is consequential at this central stage of value adding from the Energy Turnaround Concept. It induces strong effects on the formation of wholesale prices and the oligopolistic market structure.

In order to analyse this (see also Müsgens, 2004 and Ockenfels, Grimm and Zoettl 2008), let us for simplicity assume that at a certain point in time all the different arrangements which were due at this date could be aggregated to a common market where a uniform wholesale price establishes. Maybe, this assumption seems strange, since there are three different market segments (bilateral or OTC arrangements, the spot market and future contracts at the exchange). However, all the segments of the market interact and indeed will lead to a common market equilibrium which is dominated by the spot market price (see Bundeskartellamt 2011, p. 60). Due to the possibility of arbitrage even the particular form of execution arising from future contracts or bilateral arrangements depends on the exchange market spot price. For example, if the spot price at the electricity exchange is below the price agreed in the future contract or a bilateral agreement, the writer of the contract or the supplier will not have to produce the electricity physically by generating it in his own plant, but he will be able to buy it at the electricity exchange for a lower price. Hence, the generated supply of electricity all in all mainly depends on the spot market price.

The demand for electricity in the wholesale market is closely inelastic. The demanding retailers are acting as agents of their customers and they have to satisfy the needs of their customers irrespective of the price. The demand of the customers itself is barely influenced by the fluctuating wholesale price, because the customers usually have to pay a predetermined fixed rate to their retailers. Hence, the demand in the wholesale market varies throughout the year and during the time of the day and thereby primarily depends on the needs. For example, in winter, when it is dark outside, people need electricity for switching the lights on or when people start to work in the morning the companies' electricity demand increases. Consequently, the demand curve is almost vertical and its location depends on the varying needs of the customers (see Figure 4). According to Groscurth and Bode (2009, p.13) in peak times, i.e. in the evenings of November, customers demand a power output of about 80 GW per hour. In periods of low demand, i.e. in the early mornings of August, the demand drops to about 45 GWh. On average, the demand amounts to about 65 GWh. Thus, the demand for electricity fluctuates in the shaded area (see Figure 4).

With respect to the supply of electricity, the price has to cover the marginal costs, at least if we assume that there is no strategic shortening of generation capacities in order to push the price up artificially. Fixed costs are irrelevant in the short term as they have the character of sunk costs. They only influence investment decisions regarding future production capacities.

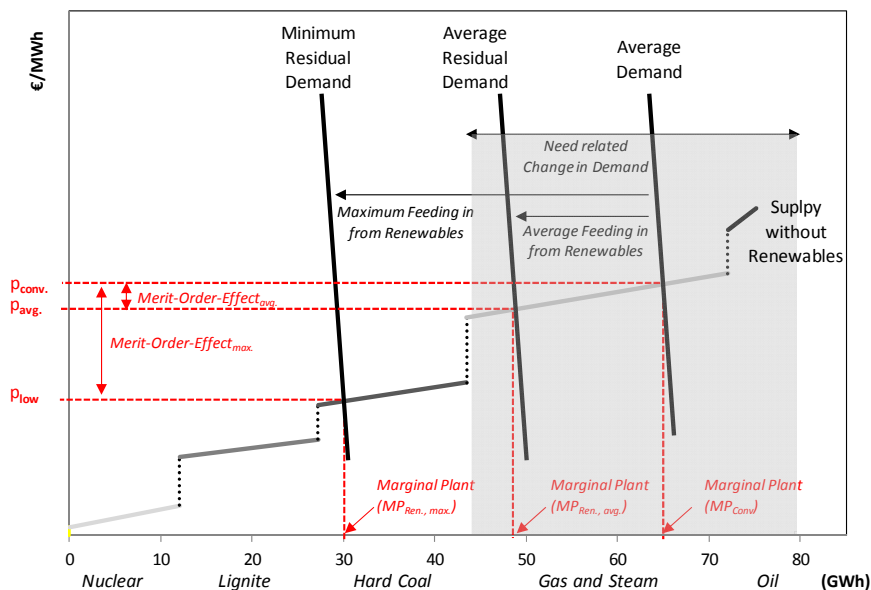


Figure 4 Model of Wholesale Price Formation

Source: Bundesnetzagentur and author's own calculations

Regarding the marginal costs, the most important items of expenditure are those for primary fuel and allowances in the EU Emission Trading Scheme. Labour costs and general expenses could be neglected. At given input prices marginal costs heavily depend on the generation technology (see Table 1) and the maturity of a given technology, which determines its power efficiency. For instance, compared to gas power plants of the same age, modern coal power plants have an advantage regarding the costs of fuel, whereas gas power plants are advantageous regarding the EU allowances. Due to the recent deterioration in the EU allowances, coal plants cause considerable lower marginal costs than gas plants. And compared to old coal plants, a new one operates with higher effectiveness at lower emissions and hence at lower marginal costs. In practice, of course a more sophisticated calculation has to be done. For example, marginal costs need not necessarily have to be constant. In addition, we should take into account the fact, that the start-up and the shut-down of plants cause considerable costs. Thus, a supplier who normally is not able to store electric power, might temporarily even be willing to provide electricity at negative prices in order to avoid a costly shut-down of plants.

Table 1

Estimation of Production Costs

	Modern Hard Coal Power Plant	Modern Gas Power Plant
Investment [Mio. EUR] 1)	1,500	750
Power [MW _{el}] 1)	1,000	1,000
Investment [Mio. €/MW _{el}] 2)	1.500	0.750
Interest Rate [WACC] 1)	8.00%	8.00%
Depreciation Period [Years] 1)	20	20
Annuity [end of year; Mio. EUR] 2)	152.8	76.4
Equivalent of h/a in full use of capacity 1)	8,000	8,000
Production of Electricity [MWh _{el} /a] 1)	8,000,000	8,000,000
Costs of Capital [EUR/MWh] 2)	19.10	9.55
Power Efficiency [Per Cent] 1)	46%	58%
Input of Primary Fuel [MWh/a] 2)	17,391,304	13,793,103
Equivalent of Input [Coal: t/a ; Gas TJ/a] 2)	2,136,524	49,615
Input Price per Unit [EUR/t ; €/TJ] 3)	106.97	8,391.00
Expenditure of Fuel [EUR/a] 2)	228,543,959	416,323,493
Costs of Fuel [EUR/MWh] 2)	28.57	52.04
CO ₂ -Emissions [t/MWh Input Prim. Fuel] 1)	0.34	0.19
CO ₂ -Emissions [t/a] 2)	5,913,043	2,620,690
CO ₂ -Emission [t/MWh _{el}] 2)	0.739	0.328
CO ₂ -Price of EUA [EUR/t] 3)	3.00	3.00
Costs of Emissions [EUR/MWh] 2)	2.22	0.98
Production Costs [EUR/MWh] 2)	49.88	62.57
Production Costs [Cent/kWh] 2)	4.99	6.26
Marginal Costs [Cent/kWh] 2)	3.08	5.30

Notes: 1) Experience value or realistic value or technologically based value
2) Calculated values, 3) Recent market price

Source: Following Groscurth and Bode (2009) and author's calculations

The described differences lead to a stepwise rising supply curve of electricity, called the “merit order curve” (see Figure 4). The curve exemplarily reflects the structure of generation capacities for the year 2012 in Germany. The curve only focuses on the supply provided on the wholesale market which normally does not include electricity generated by subsidised renewables and sold to the net operators in advance. Moreover, the curve accounts for the fact that not all the capacities being installed are available for production. While nuclear power plants are supposed to operate with full capacity, here for the other plants a default rate of 15 per cent is presumed. Furthermore, the curve is constructed by

assuming empirically reasonable relations of the values for the different marginal costs on the one hand and, due to different maturities, a continuous rise of marginal costs within a certain technology on the other hand. It starts with those capacities that operate at the lowest marginal costs and so on. In this model, the supply of electricity generated by nuclear plants has the lowest marginal costs per MWh. It is followed by lignite plants, then by hard coal and finally by gas power and oil plants. In practical, the different technologies are not that clearly isolated from one another in the merit order. For example, some new gas plants might have less marginal costs than old hard coal plants.

In a scenario without subsidised renewables, i.e. with only the conventional plants producing electricity, the market price ($p_{\text{Conv.}}$) would vary according to the primarily need-related change in demand (see Figure 4). The price always allows for covering the marginal costs of the marginal provider ($MP_{\text{Conv.}}$). All the other producers that additionally serve the demand are gaining rents, which allow for covering their marginal costs as well as their fixed costs and perhaps for generating profits.

However, the model is imperfect in two aspects. On the one hand the specific rule of the net operators has to be taken into account. In order to stabilise the voltage in the grid, the net operators coordinate the demand and supply side of the market while using the demand as the predetermined market side. Hence, if a lack of capacity is to be expected, they will ask the producers to expand their supply. If a surplus of supply is looming, they will ask for a reduction of electricity generation.

On the other hand the model has to be supplemented with the electricity supply by renewables. This "green electricity" is protected from the logic of the markets. Accordingly there will not be any cost orientation in supply-side decisions, since the purchase price is guaranteed and usually lies above the marginal cost as well as above the wholesale market price. In addition, the net operators have to priorly enable the unlimited feeding of the "green-electricity" into the net. This electricity is used to satisfy parts of the customers' demand in advance and is usually not sold via the wholesale market. Thus, only the unsatisfied customer demand remains in the wholesale market as a residual.

Due to the generation of renewables, the residual demand curve shows a left shift (see Figure 4). But, the amount of eco-power that will be induced into the grid and the degree to which the (residual) demand curve will move to the left usually depends on the weather conditions. During hours of sunshine the photovoltaic modules are adding considerably to the supply of electricity, whereas in times of heavy wind the wind-parks do so as well. Amongst all the subsidised residuals it is only hydro power utilisation, biogas, biomass and geothermal power plants that are able to provide electricity reliably. But, according to the data of the EEX these kinds of renewables only contribute to the generation power of renewables by only 14 per cent. Consequently, the

conventional power plants are used as a stopgap primarily for the production of wind and solar energy in order to satisfy a highly fluctuating residual demand.

Indeed, the volatility of the electricity generated by those two technologies is immense. According to the Data of the EEX from April 18, 2013 a new record was set. The wind and the solar energy contributed 35.9 GW to the supply of electricity, i.e. at that point in time about 50 per cent of the demand was satisfied only by wind turbines and photovoltaic modules. On the contrary, for example on November 12, 2012 at 3 p.m. only 3.2 GW were provided by wind turbines and photovoltaic modules. On average in 2012 renewables in total generated approximately 15.4 GW per hour.

With respect to the model, in a period of regular demand the price without electric power induced by wind and solar energy would be at p_{Conv} (see Figure 4). With all the subsidised power plants producing at their average capacity, it would be at p_{avg} . Producing at the historically high capacity, it would even drop to p_{low} . Hence, the renewables contribute to a price reduction at the wholesale market, which is called the “merit-order-effect” (see Sensfuß, 2011). This effect is dependent on the weather which determines the degree of capacity utilisation of the wind turbines and the photovoltaic modules. Due to several studies this effect is rising and it is estimated between 5 and 10 EUR per MWh for the year 2011 (see Bundesministerium für Wirtschaft und Technologie et al., 2012). In comparison, the average market price at the EEX totalled about 50 EUR per MWh.

Taking account of the supply provided by renewables, the price for suppliers of conventionally produced electricity is still determined by the marginal costs of the plant at the market’s margin. But the plant which is being at the margin ($MP_{\text{Ren, max.}}$ or $MP_{\text{Ren, avg.}}$) is yet another one than in the case without renewables ($MP_{\text{Conv.}}$). Thus, the renewables tend to push conventional power plants out of the market. This trend increases, since the dynamics of the generation capacities of renewables in Germany is considerable. From 1998 to 2012 the electricity provided by renewables increased with a yearly average growth rate of more than 13 per cent. During the same period the yearly average growth rate of the installed capacity amounts to 17 per cent.

4. INFLUENCE OF THE NEW ENVIRONMENT ON THE MARKET STRUCTURE

The increasing importance of the renewables together with the other elements of Germany’s U-turn in Energy Policies will significantly affect the market structure, which has already been changing slightly before (see Chapter 1). Especially the oligopolistic power of the Big-4 will gradually be undermined.

Firstly, new producers of electricity have entered the market. While the Big-4 had concentrated on centralised nuclear, lignite, hard coal or gas and steam

power plants, they neglected the segment of renewables for a long time. Owners of renewables, which apart from off-shore wind-parks are less capital-intensive than conventional plants, are typically farmers, private households, private investors and public utility companies. Meanwhile, the proportion of the renewables amounts to 43 per cent of Germany's total generation capacity and 23 per cent of the electricity production. Consequently, the market power of the Big-4 is declining. Nowadays, according to the data reported by the Bundesnetzagentur they are holding only 60 per cent of the generation capacity. Nevertheless, they are still powerful (see Bundeskartellamt, 2011), particularly in view of the fact that their contribution to the electricity supply is even more substantial, since their conventional generation capacities operate reliably as they do not depend on any weather conditions.

Secondly, the Energy Turnaround Concept causes a heavy burden especially on the profits of the Big-4 (see Figure 5) and particularly for the future success of their German electricity business. Apart from two minority participations they are the owners of the nuclear power plants. In the past, these plants worked as a profit-machinery, partly because some of them have already been depreciated and partly because some of the costs were external costs. For instance, as a result of an insurance gap the operating risk was socialized. Furthermore, as they operated with low marginal costs, they were positioned far ahead in the merit-order (see Figure 4) and could produce rents around the clock with the exception of times of maintenance work. Estimations are calculating that the Big-4 might set up claims for compensation in the total amount of EUR 15 billion due to the deactivation of their nuclear plants (see Handelsblatt, 2012a,b). However, whether they have a realistic chance to prevail in a lawsuit is highly controversial (see Bontrup and Marquardt, 2012b, p. 135-138). But there is another exposure to the policies' U-turn that acts more indirectly. Due to the expanding and priorly feeding in of "green electricity" into the grid, the conventional power plants, which are also concentrated in the hands of the Big-4, on the one hand earn less money, since the wholesale price declines via the merit-order effect. On the other hand many power plants, especially those at the end of the merit-order have diminishing operating times. This does not only lead to higher costs of capital per MWh (see calculation in Table 1), but also to less situations in which the fixed costs could be covered by a difference between a higher market price and own marginal costs. Indeed, compared to the early years of the liberalization, the performance of the Big-4 was rather poor during the last two years and the outlook for their business in Germany is comparatively gloomy (see for example Handelsblatt, 2013).

Thirdly, the Big-4 are facing unfamiliar problems in financing a strategic turnaround, which is urgently needed in view of the new market environment. In the past, instead of building reserves or making investments in fixed assets, the excessive profits were predominantly used for dividends or mergers and acquisitions. In addition, due to their performance and their market power, they

found favored conditions for borrowing at the capital markets and thus accumulated debt over years. Now, confronted with the new situation in the market their ratings are downgraded. Thus, for them borrowing will be more expensive. However, financing the turnaround by cash flow is restricted by the more moderate profit situation.

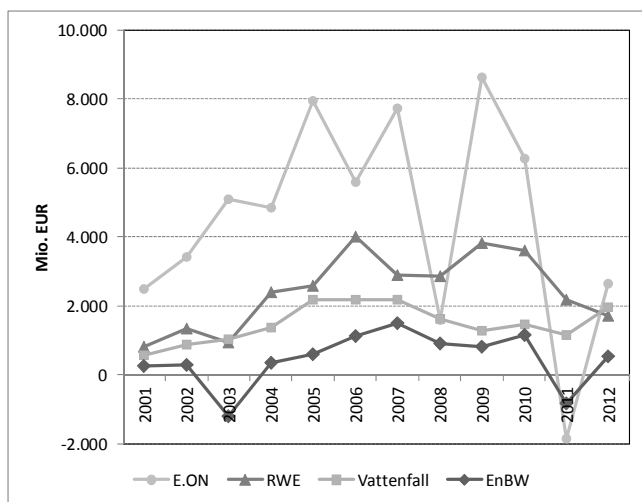


Figure 5 Profits of the Big-4 after Tax

Notes: As the data apply to the consolidated accounts of the companies, they do not only reflect the described profit situation of the Big-4 in the German electricity market but in all business fields and worldwide.

Source: Companies' Financial Statements

Fourthly, even if the problems in financing did not exist, the Big-4 as well as all the other suppliers of conventionally produced electricity are confronted with an increasing uncertainty with respect to the calculation of future fixed investments. Hence, apart from expanding into the production of eco-electricity, they do not have a reliable plan, how to expand their conventional power capacities. On the one hand, a more dynamic capacity building of gas and steam power plants will urgently be needed, since the expanding contribution of the unreliable wind and photovoltaic plants has to be combined with new flexible gas plants as backup capacities in case of unfavourable weather conditions. On the other hand, the impressive success of the extension of renewables perversely makes the investment into gas plants unattractive: Due to the higher contribution of renewables to the supply of electricity, the sector does not need as much EU allowances as before. The decline in the demand for the allowances reduces their price. In face of this, gas power plants lose attraction compared to coal power plants (see calculation in Table 1). And as a result of the merit-order effect, a potential investor has to expect a further decline in wholesale prices and foremost

markedly reduced operating times for gas plants, which will typically stand at the end of the merit order. Hence, it can be assumed that these gas plants would have only few periods for covering the fixed costs, which on top of that would rise per output unit because of the reduced operating time (see Table 1).

5. CONCLUSIONS

The story of Germany's liberalisation of the electricity markets is characterised by the dominant role of the four oligopolistic suppliers. The German policy was partly unable to circumvent this development, partly the decision makers appeared to be too naive in believing in the self-regulation of the markets. Finally, the Big-4 used their market power for distributing the gains of the improved efficiency to their own shareholders.

Due to the central elements of the Energy Turnaround Concept a gradual change is emerging. Although the Big-4 seem to discover the attractiveness of renewables, it looks like they have missed the ideal time at which a new strategy for their German business should have been created and implemented. As a result a decline of their market power is likely to occur.

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HOUSING SUBSIDIES IN SLOVENIA IN THE LIGHT OF AUSTERITY MEASURES

JEL classification: R29

Abstract

Housing subsidies in Slovenia have been introduced in 2000 with the amendments of the 1992 Housing Act. However, these were reserved exclusively for tenants in the non-profit sector. Due to their positive results, the Government also introduced the subsidies for tenants in market rentals. Apart from the subsidies for rentals, there were several other subsidies offered, especially for purchases of dwellings by young families resolving their housing issues for the first time and for other categories of citizens. However, the present economic crisis has put a major pressure onto the budgetary means of the Government. Therefore, some austerity measures were introduced in the last few years, which took its toll on the subsidies as well. The purpose of the paper is to present the positive effects of subsidizing households' housing expenses, especially those renting under the market conditions. The number of applications by young families for both purchases and rentals (over 26,000 in six years) indicates that the need for this type of assistance is huge. At the same time, the paper will strive to indicate the possible side effects of the austerity measures in the resent housing situation in Slovenia. According to the analysis of the National Housing Fund, this step tends to deprive over 10,000 young households in the years to come.

Keywords: subsidies, non-profit, housing

1. INTRODUCTION

The recent economic crisis has affected almost every aspect of household consumption in Slovenia. In particular, the consumption of those with a prominent need for financial aid through the system of social assistance has been affected. This can be attributed to the 2012 Fiscal Balance Act, as well as some other statutes. The 2012 Fiscal Balance Act introduced a number of austerity measures, which cut back or reduced certain benefits to households in need. Among others, it reduced and abolished certain the housing subsidies, intended for young households.

Prior to the dissolution of the Socialist Federative Republic of Slovenia (hereinafter: the SFRY), housing was regarded as a social good. The socialist regime emphasized the right to adequate housing, while neglecting the ownership right to a certain extent. (Nelson, 2005, p. 13) Housing policy was oriented towards distributing the housing stock among all citizens. However, after the dissolution of the SFRY, housing and social system in Slovenia changed. The new Government took a completely different approach regarding the two policies. The new role of the Government encompassed primarily enabling appropriate housing conditions for citizens. (Gorenčič, 2005, p. 13) This shift was primarily seen in the newly enacted Constitution¹, as well as the 1991 Housing Act².

The 1991 Constitution proclaimed Slovenia as a state governed by the rule of law and as a social state.³ With this provision, the Slovenian legislator indicated that the social issues of citizens are considered as a priority. On the other hand, pursuant to Article 78 of the 1991 Constitution, the state is only to create opportunities for citizens to obtain proper housing. Šturm interprets this provision in a way that state holds a responsibility to provide appropriate *housing conditions* for its citizens, while it is their responsibility to find suitable home within such framework. (Šturm, 2002: 761-763) Various housing benefits and subsidies are a part of the ‘‘housing conditions’’, since they provide citizens with financial help for providing a proper home.

Up to the present day, there have been several housing subsidies offered to citizens. Some of them were intended as assistance for buying own dwellings, while other were intended for rentals. One could be tempted to conclude that the demand for rental subsidies, and especially market rentals, could not be high, since 77% of dwellings in Slovenia are owner-occupied, 14% are used by users⁴, while a mere 9% are renters (in all four types of rentals⁵). What is more, the

¹ Official Gazette RS, 33/1991 from 28 December 1991.

² Official Gazette RS, 18/1991 from 3 October 1991.

³ Article 2 of the 1991 Constitution.

⁴ Meaning that they are not the owners of the dwelling, nor are they paying any compensation for use.

⁵ Market, non-profit, employment based and purpose apartments.

official⁶ number of market rentals is quite small compared to the non-profit rentals, which encompass 70% of all rentals. (SORS, 2011) However, the data may be misleading. The black market of rentals is flourishing, so the high number of “users” may actually resemble hidden market rental relations. This is why the number of household in need of housing assistance may actually be (and is) higher.

The paper will demonstrate the positive effects of subsidies for the households’ budget, as well as for the entire housing sector, society and economy. Part one will present the historical circumstances relevant for the housing policy in Slovenia. Part two will describe the housing subsidies and benefits offered so far. Part three will summarize the findings and draw attention to the negative effects of austerity measures for the housing sector.

2. HISTORICAL BACKGROUND

During the period of socialism, housing was highly subsidized. The rent price of social apartments was so low, that it did not demand for the subsidy, though, but the running costs (for water, electricity, etc.) were subsidized. However, tenants in market rentals could not obtain such subsidies, since they could not obtain a formal rental contract. (Bežovan, 2008) Thus, the subsidies were reserved for tenants in social apartments, reducing their housing costs to mere 4% of the overall household’s consumption. (Mandič, 1994) Nevertheless, there were certain individuals, who were unable to arrange their housing situation and needed help from the state. The small existing need was settled through the system of solidarity apartments. From the beginning of 1970s, there was an obligation for the Republics and autonomous regions to extract certain amounts for housing construction of solidarity apartments. The responsibility for construction was given to the Public Housing Enterprises, which distributed the funds according to their internal acts. Centres for social work in each of the municipalities allocated these units, based on certain eligibility conditions. For instance, the unit could be allocated to a household, in which only one member was employed. Only the Slovenian Housing Economy Act from 1981⁷ contained an explicit provision on the allocation of these apartments, while none of the statutes of other republics contained such provisions. (Nelson, 2005, p. 23) At the beginning of nineties, there were 29% of social and 4% of solidarity apartments, while the rest of the stock was comprised of private dwellings. (Mandič, 1994, p. 40)

The new housing policy, introduced after the independence of Slovenia, completely changed the housing circumstances in the country. Virtually the entire housing stock was privatized, following the enactment of the 1991 Housing Act.

⁶ The term must be interpreted in the light of the present situation regarding monitoring the number of rental units in the country. There is no official registry of rental contracts, while the black market in this sector is vivid. Thus, the used term “official” refers only to data provided through the latest Census.

⁷Official Gazette SRS, no. 3/1981.

At the end of the privatization, the ratio of privately owned to publicly owned dwellings was 88%:12%. These 12% were represented by 23,652 municipal dwellings, out of which 17,224 were non-profitable and 5,236 were intended for socially disadvantaged (Šinkovec & Tratar, 2003, p. 33-34). The main consequence of this process was that the number home-owners in Slovenia increased drastically.

In addition to the process of privatization, the 1991 Housing Act established a legal base for the enactment of the National Housing Programme (hereinafter: the NHP) with its Article 77, as well as for the establishment of the Housing Fund of the Republic of Slovenia (hereinafter: the HFRS) with Article 79. The first draft of the NHP was adopted by the Government in 1995. However, it was not enacted in the Parliament until May 2000⁸. (Sendi, 2012, p. 21) The HFRS has been entrusted with the execution of the NHP. The 2000-2009 NHP represented a comprehensive programme, regulating the long-term development of the housing sector. The programme identified in particular the problem of deteriorated housing stock. In addition, it anticipated the increased need for rental units in the future. Therefore, the main goal of the NHP was to increase the scale of construction of dwellings, as well as to achieve construction and renewal of at least 10,000 dwellings annually in the ten-year period. (MESP, 2011, p. 4) It did not neglect the role of municipalities in provision of housing - it determined direct and indirect measures for both the state and the local communities. The direct measures included legislative, organizational and financial measures, whereas the indirect involved taxation, social and spatial measures. The responsibility of local communities was in generating social housing stock, managing subventions and co-financing the generation of non-profit housing stock by means of providing construction lots and infrastructure. (MESP, 2011, p. 4)

2.1. The circumstances in the last decade

In order to increase the supply of non-profit apartments, the 2000–2009 NHP set as one of its goals the construction of 13,950 non-profit dwellings and 48,300 market dwellings within the period 2000 through 2007. (MESP, 2011, p. 6) However, the plans were far from adequately achieved. Ultimately, the entire construction reached 92% of the estimated construction. The construction of market dwellings exceeded estimated construction by almost 9%, whereas the construction of public units was only 32.5%. (Mežnar & Petrović, 2013)

Another measure for increasing housing prosperities of citizens was anticipated in the form of the National Housing Savings Scheme (hereinafter: the NHSS), enacted with the National Housing Saving Scheme Act⁹. The purpose of the scheme was to give citizens an incentive for individual savings to settle

⁸ Official Gazette SRS, no. 43/2000.

⁹ Official Gazette of RS, no. 86/2000 of 15 September 2000.

housing. It offered a possibility of obtaining a loan, which was double in value than the sum of savings upon the expiry of the saving period under a set (fixed) interest rate. Regardless of the favourable conditions available through the scheme, its attractiveness decreased over the years due to the increased offer of equally favourable commercial bank loans. In addition, the amendments of the National Housing Saving Scheme Act in 2006 and 2007¹⁰ lowered the premium. To illustrate this: in 2008, less than 30% of the available lots were sold. (HFRS, 2012, p. 14) Therefore, pursuant to the provisions of the Fiscal Balance Act¹¹, new savings contracts are no longer available and only the contracts, concluded in the past, are to be realized. (HFRS, 2012, p. 14)

In 2003 a new Housing Act¹² was enacted. The new statute reorganized the types of tenure in Slovenia. Primarily, it abolished the category of social apartments by summarizing it within the non-profit sector. Thus, non-profit rentals are now comprised of rentals, for which tenants either pay their own participation or not. The own participation is compulsory contributions of tenants in non-profit sector, whose level of income exceeds the level from the Rules on renting non-profit apartments¹³ for obtaining an apartment without one's participation. The value of own participation can amount to maximum 10% of the value of the non-profit apartment according to Article 116 of the 2003 Housing Act. The parties conclude a special contract on the conditions of payment and reimbursement of the own participation. The value of the participation is reimbursed at latest in ten years under 2% interest rate.¹⁴ Selected applicants, whose household's income does not exceed this value, do not pay the participation. This category actually resembles the previous category of social apartments and can be awarded only to the most financially underprivileged. Municipalities and non-profit housing organizations are in charge of the allocation of non-profit apartments. Each municipality or the non-profit housing organization (if the latter is established in the particular municipality) organizes public tenders for its territory and determines the priority group, to which the apartments are to be allocated (young, elderly, bodily impaired, families with school-aged children). Apart from the incomes, relevant criteria for the allocation are present housing situation, number of household members and possible bodily or mental inabilities and dysfunctions. The HFRS conducts public tenders for non-profit rentals, in addition to tenders for market rentals and tenders for sales under favourable conditions. Municipalities are obliged to balance the allocation of the apartments available to both categories (with and without own participation) and are to reserve at least 50% of the available apartments for the social category.¹⁵ Tenders are driven by the rules of administrative procedure. Decisions on the selection of entitled applicants are reached no later than in six

¹⁰ Official Gazette of RS, no. 14/2006 of 2 February 2006 and no. 60/2007 of 6 July 2007.

¹¹ Official Gazette of RS, no. 40/2012 of 30 May 2012.

¹² Official Gazette of RS, no. 69/2003 of 19 June 2003.

¹³ Official Gazette of RS, no. 14/2004 of 3 February 2004 and later amendments.

¹⁴ Article 12 of the Rules on Renting Non-Profit Apartments.

¹⁵ Article 87(8) of the 2003 Housing Act.

months from the notice on the tender.¹⁶ After the final lists are composed, rental contracts are concluded between rightful claimants and landlords (non-profit organizations or municipal housing bodies).¹⁷

3. HOUSING SUBSIDIES AND BENEFITS

The current system of housing subventions was presented with the 2000-2009 NHP. Prior to the enactment of this act, the system of subventions in Slovenia encompassed only provision of so-called “object related” subsidies¹⁸. The so-called “subject related” subsidies were quite restrictive and included only the most socially deprived citizens. The 2000-2009 NHP recognized the need for broadening the circle of rightful claimants also in the “subject related” group of subsidies. Therefore, it predicted larger scope of public expenses for both types of subsidies, as well as for generating new social apartments, since the two measures were seen as one of the most fundamental issues of the public consumption policy of both the state and municipalities. In addition, the measures represented necessary prerequisites for the realization of the 2000-2009 NHP.¹⁹

3.1. Subsidy for non-profit apartments

The amendments of the 1991 Housing Act in 2000²⁰ finally introduced the subsidization of the non-profit rents. The subsidy was assigned by the municipal organ based on the means-test. The same means-test was used for awarding both rent subsidies and social rental apartments. At first, eligible tenants were exercising their right twofold: with the municipal organ (in form of a reduced rent price), as well as with the Centre for social work (in form of a higher pecuniary social assistance).

The system was somewhat altered with the enactment of the 2003 Housing Act and its later amendments. The new means threshold was set and is still currently valid: it corresponds to the means threshold as determined for awarding citizens with pecuniary social assistance, but increased for 30%. The novelty was also that the subsidy was awarded only for the area of the dwelling, which was recognized as appropriate in relation to the size of the household. Furthermore, the amount of the subsidy is set from 0.1% to 80% of the non-profit rent. Tenants with higher incomes receive lower subsidies, but all tenants are obliged to pay 20% of the rent price. (MESP, 2011, p. 7-8; Mežnar & Petrović, 2013)

The level of the subsidy is calculated as a difference between the non-profit rent and the income of the household, reduced for the minimal income in the country and 30% of the household's income. Relevant for the calculation are

¹⁶ Article 87(2) of the 2003 Housing Act.

¹⁷ Article 87(3) of the 2003 Housing Act.

¹⁸ This refers to such subventions, which are in connection to the acquisition and use of dwellings, or both.

¹⁹ Sections 1.2.4. b) and c) of the 2000-2009 NHP.

²⁰ Official Gazette RS, no. 1/2000, from 7 January 2000.

the monthly rent (without the effect of the location on the level of the rent²¹) and the actual area of the dwelling, which is recognized as appropriate in relation to the size of the household.²² The subsidy is awarded for one year period and its value is fixed within this period. Given that the circumstances of the household change during this year (that the income decreases or that the number of household members changes), the tenant is entitled to demand that the new level of subsidy is calculated.²³ Tenant is entitled to apply for the subsidy also in the following year(s), if the circumstances in the household still meet the conditions for the subsidy.²⁴

Under these conditions, there were 6,067 entitled tenants in non-profit rentals in the year 2010. The overall expenditure for subsidies was 6.5 million EUR, while the average subsidy was 90 EUR a month per household. (MESP, 2011, p. 20)

Table 1 and 2 indicate the number of rightful claimants and annual amounts of subsidy for the period 2000-2009, separately for the old and the new system of awarding. It is evident that, even though the number of the rightful claimants during the period 2000-2004 was somewhat higher than in the period 2005-2009, the overall amount of subsidies awarded is almost two times higher, indicating that the monthly value of the subsidy increased as well after the introduction of the new system. However, it must be acknowledged that the non-profit rent prices were gradually increasing during the period 2004-2006, in accordance with Article 19 of the Decree on the Methodology of Determination of Rents for Non-Profit Housing and the Criteria and the Procedure for Implementation of Subsidised Rents²⁵. Thus, the increase of the subsidies also resembles the increase of the non-profit rents.

Table 1.
The number of rightful claimants and the amount of subsidy for non-profit rentals within the period 2000-2004 (old system)

Year	Increase of the pecuniary social assistance due to rent price (with Centres for social work)		Decreased rent price due to inability to cover the entire amount of the rent price (with the municipal body)		Sum of benefits given out by both institutions	
	Number of rightful claimants	Annual amount (in EUR)	Number of rightful claimants	Annual amount (in EUR)	Number of rightful claimants	Annual amount (in EUR)

²¹ This is one of the elements relevant for determination of the rent price, apart from the size of the apartment and its value.

²² Article 121 (4) of the 2003 Housing Act.

²³ Article 121 (6) of the 2003 Housing Act.

²⁴ Article 121 (7) of the 2003 Housing Act.

²⁵ Official Gazette RS, no. 131/2003.

2000	2,300	1.170.55 1	/	/	2,300	1.170.551
2001	2,500	1.174.11 3	1,720	207.753	4,220	1.381.866
2002	2,740	1.266.88 1	2,050	448.803	4,790	1.716.684
2003	2,750	1.317.90 3	5,500	2.329.00 9	8,250	3.646.912
2004	3,354	1.697.09 4	6,894	3.373.34 6	10,248	5.070.440
Sum 2000 - 2004		6.626.54 2		6.358.91 1	29,808	12.986.45 3

Source: Analysis of the 2000-2009 NHP (MESP), p. 14. The last row is added by the authors for easier interpretation.

Table 2.

The number of rightful claimants, the amount of subsidy for non-profit rentals and average monthly subvention within the period 2005-2009 (new system)

Year	The sum of finance for subventions of non-profit rents in EUR	Number of rightful claimants	Average monthly subvention per rightful claimant
2005	3.884.157	5,454	59
2006	4.854.401	5,694	71
2007	5.293.056	5,807	76
2008	5.363.160	5,333	84
2009 (estimation)	5.508.000	5,400	86
Sum 2005-2009	24.902.774	27,688	
Sum 2000-2009	37.888.227		

Source: Analysis of the 2000-2009 NHP (MESP), p. 15

3.2. Subsidy for young families

The 2006 and 2007 amendments of the NHSS Act²⁶ introduced another novelty regarding housing benefits: the subsidy for young families who accessed housing through purchase, construction, reconstruction or change of the purpose of existing buildings, and subsidy for market rentals. (MESP, 2011, p. 9) The eligibility for the subsidy was based on the following criteria: Slovenian or EU citizenship²⁷, concluded sales contract for a dwelling or the final construction permit, issued after 1 March 2006, status of the young family, number of household members and income threshold. The status of young family was assessed according to the age of one of the parents: he was not to be older than twenty eight years (or thirty years, if they were doctoral graduates), while at least one of the children must not have been a school-age child. The subsidy was awarded for eight years and ranged from 160 EUR per family member in the first year to 300 EUR in subsequent years. Due to the high number of eligible claimants in 2011, the subsidy was reduced to 120 EUR per family member. (HFRS, 2012, p. 14)

Within the 2006-2011 period, the HFRS has announced six public tenders for both of these subsidies. The complete number of applications was 26,637, of which 20,485 were eligible for one of the subventions, amounting to eighteen million EUR. (HFRS, 2012, p. 14)

Both subsidies for young families searching for their housing for the first time were cancelled under the amendments of the Fiscal Balance Act. The subsidies are not going to be paid even to the rightful claimants to whom it was awarded within the period 2006–2011, nor are they available for the future applicants.

3.3.

Subsidy for market rentals

One of the most important benefits was introduced with the amendment of the 2003 Housing Act in 2008²⁸: subsidy for tenants in market rented apartments. The subsidy is available for claimants who meet the means threshold as set for the subsidies for non-profit rentals.²⁹ In addition, they must also meet other eligibility conditions for obtaining a non-profit rental (see section 3.2. above). A prerequisite is that the claimant had previously applied for a non-profit apartment, but was not selected by the awarding committee due to the limited number of available apartments. The claimants are also able to apply for the subsidy, if there was no tender in their municipality for more than one year.³⁰

²⁶ Official Gazette RS, nos. 14/2006 and 60/2007.

²⁷ For the EU citizens additional prerequisite is that they must also have the permanent residence permit in accordance with Article 160 of the 2003 Housing Act.

²⁸ Official Gazette of RS, no. 57/2008 of 10 June 2008.

²⁹ Article 121.b of the 2003 Housing Act.

³⁰ Article 121.a of the 2003 Housing Act.

The subsidy is calculated as a difference between the acknowledged non-profit rent of 3 EUR/m² and acknowledged market rent, which differs between the regions and can amount to 4 – 7 EUR/m². (MESP, 2011, p. 21)

During the first year, in which these subsidies were available (2009), forty nine municipalities paid subvention to 307 tenants, amounting to 153.516 EUR. The number rose the following year, when sixty eight municipalities paid subvention to 782 tenants. The same trend of increase was observed also in the following years.

The greatest contribution of these subsidies is that the pressure onto non-profit rentals has decreased. With rising number of applicants for non-profit rentals and limited number of available units, the subsidy for market rental is a useful tool for reducing social hardship of many households in need.

3.4.

uarantee Scheme for natural persons

Since the economic crisis brought certain inconveniences for the entire economy and especially construction sector, the Government introduced The Republic of Slovenia Guarantee Scheme Act³¹ in order to alleviate the consequences thereof. The Act offered a new possibility for certain natural persons to obtain a housing loan with the state's guarantee. The main objective of the scheme was to assist the unemployed, who were laid off due to business reasons and for other socially disadvantaged individuals (irrespective of the crisis). The eligibility criteria included having a permission for permanent residence in Slovenia and being employed for a fixed period of time, resolving the housing situation for the first time, being a member of a young family³² or an unemployed person who lost their job after 1 October 2008.

The duration of the scheme was set for two years, from 2009 until the end of 2010, as the economic situation expected to improve by then. The HFRS approved 173 schemes in 2009 and 247 in 2010, while rejecting a mere twenty one application in 2009 and 2010. (HFRS, 2012, p. 16)

4. FUTURE OF HOUSING SUBSIDIES IN SLOVENIA

At present, only subsidies for non-profit and market rentals are available for citizens. Other subsidies and benefits have been either partially or in total cancelled.

The new NHP for the period 2013–2022 (which has not been enacted yet) is to reorganize the entire sector of housing benefits in Slovenia. The main goal of the 2013-2022 NHP is to create conditions to obtain adequate housing,

³¹ Official Gazette of RS, no. 33/2009 of 30 April 2009.

³² This criterion was determined in the same manner as for the subsidy under the NHSS.

while it is being led by the principle of public interest. Goals for creating efficient and balanced housing supply are emphasized. A new categorization of dwellings is foreseen with the 2013-2022 NHP: public rental (comprised from previous non-profit, purpose rent and employment based houses) and market rental dwellings. Moreover, the rent price for public rentals is to be unified for all three types. (MESP, 2011, p. 10)

One of the novelties is the housing benefit intended for lower and below-average income households. The main emphasis of the new housing benefit is to encourage households to obtain adequate dwelling, not only according to its size, but also according to other criteria (location, income, rent price and their ability to cover costs). These must obtain such a dwelling on the free market that would suit their needs and possibilities. The benefit would be then an additional support as regards affordability.

Deemed as lower or below-average income³³ is the income, to which a rent price of 9 EUR/m² for an adequate dwelling represents less than 40% of the household income. The housing benefit would represent a difference between the rent price of 9 EUR/m² and the rent price, which exceeds 20% of the household income. The benefit would be available for tenants in both public and market rentals. (MESP, 2011, p. 21)

The simulation calculations of the HFRS have indicated that the number of rightful claimants would increase almost two-fold with the introduction of the housing benefit: from the present 6,067 of non-profit rental claimants to 12,000; from the present 782 of market rental claimants to around 2,000 claimants. The calculations are based on the assumption that the monthly income census would be 675 EUR net for a single-member household and 1,013 EUR for a two-member household. The housing benefit would amount to 140 EUR and 200 EUR respectively. The same amount of housing benefit would be available to all tenants, irrespective of the location of the dwelling, as well as the type of the rental. Given that the income of the household would increase, the housing benefit would be cancelled. (MESP, 2011, p. 22) At the moment, there are around 6,600 rightful claimants waiting for the non-profit dwelling, around 5,000 would be entitled to the housing benefit. The ultimate number of rightful claimants of housing benefit would be around 19,000 tenants. As a result, from the present 6,9 million EUR needed for the subsidies, in the future there would be around 50 million EUR needed. (MESP, 2011, p. 22)

The austerity cutbacks introduced by the Government have restricted or cancelled many rights and benefits, not just regarding housing, but also in connection with other social policies in the country. Prior to the amendment of the Fiscal Balance Act, there was a change in the social legislation as well, introduced with the amendment of the Exercise of Rights to Public Funds Act³⁴.

³³ This income represents only the upper limit of a monthly household income.

³⁴ Official Gazette of RS, no. 40/2011 of 27 May 2011.

The major change was seen in the manner in which certain rights and benefits are now awarded. Even though the subventions for rent prices were not radically change, the value of other social benefits was reduced, influencing the housing costs as well. The main change is that the value and the size of property owned by the claimants will be taken into consideration when calculating amount of social benefits. Moreover, a dwelling in which the claimant resides is exempt from the calculation only if it does not exceed a certain, i.e. adequate, size³⁵. (MLFSA, 2012; Mežnar & Petrović, 2013)

5. CONCLUSION

In light of the present economic crisis, many social transfers have been decreased or cancelled. This has imposed a great burden onto the consumption of many households across Slovenia, including the increase of housing costs. Among the most endangered are especially young families and households with lower incomes, who do not own their own home. These two categories have suffered the greatest reductions of housing subsidies with the austerity measures. The HFRS has estimated that more than 10,000 young families are to be deprived due to the reductions in the following five years. This could lead to additional demographic and social constraints, such as delayed independent life, delayed creation of families and parenthood. (vlada, 2012, p. 15) Therefore, one can doubt whether cutting off social and housing benefits is a proper measure in the current economic situation.

It must be acknowledged that the lack of funding has indeed been a major constriction for the execution of the housing policy in Slovenia. This can be illustrated with the circumstances in the financial state of the HFRS, which is one of the main actors in this sector. The anticipated funds from the state budget for the period 2000–2004 were approximately 146 million EUR, while the actually provided funds were around 12 million EUR, corresponding to merely 8.2% of the anticipated funds. (Sendi, 2007, p. 157) In addition, in the period 2009–2011 the state did not increase the capital of the HFRS, while other financial source are as well limited (e.g. non-deposit funds and instruments of the EU) (HFRS, 2012, p. 10)

The new NHP for the period 2013–2022, once and if enacted, is likely to improve the state of the housing benefits in Slovenia. However, prior to the enactment, the Government must carefully design the appropriate measures to be taken as well. A comprehensive approach is needed in order to ensure that the ultimate result of all novelties is not just the change as such, but also the improved housing situation and increased welfare of citizens.

³⁵ For one-member household, the size of the adequate dwelling is 60 m².

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**MONETARY POLICY REGIMES, DISINFLATION
AND GROWTH IN CENTRAL EUROPE**

JEL classification: E42

Abstract

At the end of the 80's Central European Countries started to abandon their administratively fixed exchange rates and gradually adopted new monetary regimes with more or less emphasis on the exchange rate, inflation and growth targets. This study analyses the economic background of the choice of monetary regime in these countries and their success in curbing inflation. The main question the paper addresses is whether any of these monetary strategies can be regarded as more beatific in the pursuit for achieving a close to eurozone level inflation. The paper also points out that the antiinflationary policy can only be efficient in the long run if it does not endanger the keeping up of the eurozone average growth rate in these converging economies. A panel examination delivered by the study of 15 Central and Southern European Countries – similarly to De Grauwe and Schnabl, 2008 – provides evidence of inflation targeting as being an effective policy to reduce inflation, however, reveals biased results concerning economic performance.

Keywords: monetary policy, economic convergence, inflation

1. INTRODUCTION

The paper gives a brief overview of the monetary policy regimes pursued by the new members and some advocates of the European Union. The emerging economies of Central and South Eastern European countries have to face the urging requirement of real economic convergence and disinflation at a time. Their way of catching up is largely influenced by the monetary policy framework they opted for. The main goal of my research is therefore to investigate which alternative regime supports EMU accession in the most adequate way. After introducing some main characteristics of the particular economies the paper compares the growth and inflationary tendencies of 15 Central and South Eastern European countries between 1995 and 2012 and tests some factors of inflation and growth in an OLS framework to find empirical evidence whether monetary policy affects nominal and real convergence significantly.

2. BACKGROUND

The 15 countries examined in the paper (Bulgaria, Croatia, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Serbia, Slovakia, Slovenia and Turkey) have chosen fairly different economic policy strategies in their European integration process. As common features of all the countries making efforts to comply with EU (eurozone) requirements the strong commitment to the embedment into the world economy by goods and capital market liberalisation and the commitment to disinflation can be emphasised which created consensus among leading economists of these countries and the international financial experts. Within this commitment to world economic opening the particular countries have chosen specific objectives and tools, nevertheless, disinflation has played an indisputably dominant role in the choice of economic policy alternatives.

Among monetary policy regimes inflation targeting, having been a fashionable policy direction for the recent decades, relies on diverse special literature as for its theoretical footing as well as for its practical results. Its main advantage is provided by the direct definition of a numerical medium term inflation target in contrast to other regimes where the intermediate target (monetary aggregate or exchange rate) does not directly connect to the change in the price level. A central bank operating in an open economy in this regime will attempt to smooth inflation and output (see among others Svensson, 2006):

$$L = \omega_1(\pi - \pi^*) + \omega_2(y - y^*) \quad (1)$$

In the case of small open economies experts most often cited in this field (see among others Mishkin-Schmidt-Hebbel, 2006), strongly recommend to build in exchange rate stability in the loss function of the central bank and in inflation forecasting models as target variable which expresses that the central

bank has to manage exchange fluctuations causing major economic distortions. The loss function in this conception is as follows:

$$L = \omega_1(\pi - \pi^*) + \omega_2(s - s^*) + \omega_3(y - y^*) \quad (2)$$

There is no need for deeper theoretical or empirical reasoning to accept the above form of the loss function as a general description of the objective function of the central bank of a small and open economy – with weights reflecting national priority ranking – and therewith as an equation well describing the economies under examination in this paper.

There might occur rather strong deviations, though, if we allow that any of the above parameters take zero value. Under fixed exchange rate inflation smoothing can be unnecessary, and if inflation targeting is interpreted in a strict sense, all the above parameters apart from the inflation difference should be regarded as zero. This can signify the best possible solution if information on aggregate demand and the exchange rate channel of the transmission mechanism is not reliable, hence it is worth concentrating on the medium term inflation target in a narrow sense. Small open economies should also follow suit in annulling certain targets when they are sensitive to exogeneous shocks. These countries, furthermore, are better off if they follow exchange targeting before seeking price stability and can even pursue a currency board system (Orlowski, 2008) which as we will later see is a widespread solution in the Baltic countries. The so called flexible inflation targeting can be reconciled with more emphasis on output gap and the mitigation of exchange fluctuations. (Svensson, 2006).

Inflation targeting is considered as widely supported for its greater flexibility as it generally provides greater room for manoeuvre for central banks to set in discretionary tools. In the case of Central and Eastern European countries the introduction of the regime came to front after these economies were torn by the Asian and Russian crisis and were forced to commit themselves to a well defined policy rule. (Orlowski, 2008).

Later on it will be shown that inflation targeting has overall proved to contribute to successful disinflation in most examinations but succeeded in meeting other objectives in the central bank's loss function to different degrees in various countries. The general alternative to targeting inflation was exchange targeting (or currency board) in the new modern market economies of Europe. It is worth examining how countries with different strategies have performed in nominal and real economic performance and whether inflation targeting can be regarded as outstanding or at least such implying any advantage as regards inflation and output growth.

3. METHODOLOGY

The first part of the research briefly introduces the monetary policy preceding euro adoption of the new member states of the EU joining in 2004 and

2007 as well as Croatia, Serbia and Turkey well supplementing the above group as regards their economic development and geographic closeness. Beyond a general description of the various monetary policy objectives and tools the paper points at some distinguishing economic conditions of the selected countries. Countries were grouped according to their geopolitical background which does not always correspond to the choice of monetary policy regime.

In the second part, for the sake of a better comparison of the effectiveness of monetary policy, the strength of inflation persistence was estimated and the impact of some variables which have a strong theoretical link to inflation in a panel regression framework. The statistical goodness of the inflation targeting monetary strategy was tested relying on the data of seven inflation targeters and 8 non-inflation targeters (as control group) on the basis of the methodology recommended by Wu (2004) with the help of regression equations with various indicators influencing the rate of inflation (current account balance, relative price changes, the expansion of domestic consumption) with an econometric model estimation.

The basic equation used for estimating quarterly inflation was as follows:

$$\pi_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 \pi_{t-1} + \beta_3 C_i + \beta_4 T_t + \varepsilon_{it} \quad (3)$$

The dependent variable in the equation was the quarterly inflation rate (consumer price level increase compared to the corresponding period of the previous year) measured in the selected countries (π_{it}), the explanatory variables are the following: a dummy variable reflecting the policy choice of the country (with a value of 1 if the country is inflation targeter and 0 if not), a one-period lagged quarterly inflation variable (π_{t-1}). The C variable compresses the country-specific, whereas the T variable the periodically different (time-specific) variables which are common for all the countries (and thus might be corresponded to supply-shock inflation), and ε_{it} is the error term. (The i index denotes the particular countries and the t index stands for the given quarter of a year. If the β_2 parameter takes a value between 0 and 1 it indicates that the inflation rate follows a stationary autoregressive process with regression toward the mean. Alternative ways of filling in the C variable is using public (household) consumption to GDP ratio, trade balance or current account balance as percentage of GDP (as most countries in Central Europe have an outstanding economic openness the change in these variables can well reflect demand shocks), variables measuring government spending (expenditure and public debt to GDP), or the change in dual productivity capturing the Balassa-Samuelson effect of relative price dynamics in the tradable and non-tradable sector. Instead of using the consumption/GDP variable most studies recommend an approximation of the output gap (see e.g. Ball and Sharidon, 2003) for accounting for the Phillips-curve effect. Foreign exchange volatility, M2-to-GDP ratios, real GDP growth and gross fixed capital formation to GDP variables in the data set were also included as recommended by De Grauwe and Schnabl (2008) and Staehr (2010) to account for financial market processes and the Bhagwati-effect stemming from relative increase in capital

endowment. Ball and Sharidon (2003) assign the relative price change of international commodity price index as the variable under T , denoting an external, time-variant effect, which was also adopted in the regression.

Average output growth and inflation data were also compared in the period to reflect the trade-off between inflation and output growth during the convergence process of the selected countries.

The quarterly data of IMF IFS was used for inflation, export and import, quarterly GDP and Eurostat database for productivity, M2 and fixed capital formation for analysis. Some data series (for example in the case of Malta, Croatia, and Serbia) started later than 1995 because of historical reasons and M2 data were not available after euro introduction (in the case of Slovenia, Estonia, Malta, Cyprus, Slovakia). For the latter the eurozone average was applied instead of country specific variables after EMU accession. In addition, the OLS estimation of Gretl is able to process time series with missing data.

4. MONETARY POLICY REGIMES PRECEDING EMU ACCESSION

Baltic countries

After a 40-45% drop in GDP following the gaining of independence of the three Baltic countries a period of GDP growth began in 1995, and after the Russian crisis in 1999 a more stable economic period followed (Sutela, 2002). Before the 2008 global financial crisis an overheated economy characterised the three Baltic states with high levels of private foreign currency debt and around 10% inflation.

Having given up attempts to maintain a floating exchange regime at the beginning of economic transition all the three countries shifted to fixed exchange regimes in the frames of a currency board (Latvia and Estonia) and in a close to currency board system (Lithuania) between 1992-1994. The maintenance of a currency board requires 100% foreign exchange reserves to safeguard the value of the domestic currency in circulation. Thanks to the well defined nominal anchor interest rates and inflation generally align to the economy whose domestic currency is the anchor for the currency board.

The Baltic countries' economic convergence can be best characterised by early full capital liberalisation, fixed exchange rates and an open economy often facing high current account deficit (Sutela, 2002). The three countries joined the ERM II. in 2004-2005 and Estonia has been a eurozone member since 2011.

The Visegrad group

The Czech Republic, Slovakia, Poland and Hungary was gradually shifting from exchange targeting to a flexible exchange regime (by fully liberalising capital markets) and inflation targeting between 1998 and 2001. After

a serious drop in output and two- to three-digit inflation between 1990-1995 the four countries successfully stabilised the economy by the end of the 90's and reduced inflation under 10% (Novák, 2009).

These countries pioneering in inflation targeting in Central Europe had to face a dual postulate: stabilising the price level and their fiscal position. Inflation targeting is often identified as a policy regime having no strict prerequisites, the lack of adequate financial markets and institutional background as well as the commitment of the fiscal authority to price stability (even if central bank independence is ensured as in the Visegrad Four) can hurdle the effectiveness of the monetary policy following the medium term inflation forecast. Fiscal deficit often prevented the fulfillment of the Maastricht criteria in all these countries but especially Hungary has been suffering under a mostly above (and Poland a close to) 60% public debt unique in the region which entailed high interest rates and a loss of credibility of economic policy which would be crucial for anchoring inflationary expectations.

The global financial crisis badly hit Hungary and the Czech Republic, Slovakia and Poland have relatively suffered less fallback and have partly regained growth potential. Slovakia has been a member of the EMU since 2009.

Cyprus and Malta

Cyprus and Malta while starting from an economically less dependent situation on the eurozone countries – with strong ties to the United Kingdom - introduced the euro as currency peg preceding (Cyprus) or following (Malta) EU accession and conducted exchange rate targeting until the introduction of the euro in 2008.

Capital liberalisation became effectual in Malta in the 90's, and by 2004 in Cyprus.

Whereas maintaining the highest M2-to-GDP ratios among acceding countries, both Cyprus and Malta countries have stabilised inflation under 5 percent throughout the whole period, but the economic performance has decelerated since the recent crisis which has led to a close to eurozone debt-to-GDP level (80%) (Eurostat, 2013) in both countries with the deterioration of the financial environment.

Slovenia, Croatia and Serbia

The successors of the former Yugoslavia – including Slovenia, Croatia and Serbia – formed their self sufficient monetary policy and introduced national currencies within a fixed exchange system after the wartime hyperinflation in the 90's. Monetary policy in this region was largely influenced by the dominant role of the euro, the strong euroisation, in everyday economic transactions and the savings of private actors. (Barisitz, 2004)

Slovenia moved towards full capital liberalisation at the beginning of the 2000's. Price stability was realised first in the frames of monetary targeting, then maintained under implicit exchange targeting. Slovenia until its joining to the eurozone in 2007 maintained a rigid fiscal policy with an often positive fiscal

balance and this way was the first to meet the Maastricht criteria among the new EU members.

Croatia and Serbia were still suffering under the long-lasting effects of the war at the beginning of the 2000's which primarily appeared in the twin deficit and foreign indebtedness. Croatia maintains an officially managed float system with a narrow band around the central parity of the currency exchange against the euro, whereas Serbia applied fixed regimes (with a band and later crawling peg) before the introduction of inflation targeting and managed float in 2006 in a relatively high inflationary environment – above 10% inflation (IMF, 2013).

The global financial crisis has been accompanied by the the deceleration of economic performance in recent periods in all the three countries and a growing public debt even negatively affecting the Slovenian financial sector but Croatia due to its dynamic development before 2008 is now among the more developed countries of the region as regards GDP per capita and is going to become an EU member in 2013.

Romania, Bulgaria and Turkey

After a hyperinflationary period of all the three Southern countries in the 90's, apart from the year 2007, Bulgaria has managed to keep inflation below 10% since 2000 but Romania and Turkey started the 2000's with above 50% inflation rates (IMF, 2013). The beginning of the 90's in addition meant stagflation in Bulgaria and Romania as a consequence of the transformation period and a lot of financial stabilisation measures were necessary also in the highly dollarised economy of Turkey.

Bulgaria similarly to the Baltic countries undertook a currency board regime after the serious recession in 1996-97 and could successfully anchor inflationary expectations (Hristov, Zaimov, 2003).

Romania first adopted monetary and exchange rate targets as nominal anchor and in mid 2005 finally changed to inflation targeting under managed floating.

Turkey also has a long history of policy regime changes: from managed floating to crawling peg, and monetary targeting to implicit and explicit inflation targeting. Explicit inflation targeting was launched in 2006 after fiscal stabilisation, the decrease of interest rate volatility and currency appreciation. After the crisis Turkey came up against a depreciating currency and increasing interest expectations which made the central bank reformulate inflation targeting and introduce financial stability as supplementary goal to price stability. (Kara, 2012).

All the three countries underwent a serious abatement in economic performance during the crisis, Turkey leading the list with a 15% decrease in on quarter, however, Turkey is on a strong economic growth path in contrast to other European countries and neither of the three has to cope with huge public debt levels (public debt is between 30-40% in all these countries by now).

5. PRECEDING RESEARCH RESULTS ON INFLATION TARGETING

Research results on the effectiveness of inflation targeting have shown a diverse picture in the economic literature. Hu (2003) and Wu (2004) justified that inflation targeting among developed OECD countries proved to be overperforming any other monetary policy in both curbing inflation and even in safeguarding a balanced growth for the real economy. The examination of Mishkin-Schmidt-Hebbel (2006), in contrast, failed to shore up arguments for IT-countries (IT: inflation targeting) reaching outstanding results in arresting inflation. In their view the performance of these countries have simply gone through a similar disinflationary process as was typical of most industrialised countries in the 90s. Nevertheless, there is a broad group of experts who agree that inflation targeting has delivered extra gains in anchoring inflationary expectations, which is manifested in both the level and volatility of inflation. At the same time Batini-Laxton (2005) established that the applicability of the IT-system does not surmise a rigorous set of criteria, thus emerging economies can adopt it in case they define appropriate institutional and technical goals. However, high government deficit and the political influence on central bank decisions (Orlowski, 2008) can not be reconciled with the IT strategy. Novák (2009) investigating a panel of developed OECD and emerging Central European IT-countries came to the conclusion that inflation targeting contributed to decreasing the persistence of inflation in both group of countries, though in Central European countries credibility deficiencies in economic (above all fiscal) policy and the inflexibility of foreign exchange policy often distorted the effectiveness of monetary policy.

High degree of dollarization can also be a disadvantage and lead to high domestic interest rates. Nevertheless, IT-systems can be effective in overbearing inflationary expectations even in countries with no stable financial system established if the commitment of the monetary authority is credible like in the Czech Republic, Poland and Turkey. (Orlowski, 2008)

De Grauwe and Schnabl (2008) found evidence that in Central and South Eastern Europe exchange rate stability and inflation targeting contributed to disinflation, however, inflation targeting did not contribute to output growth.

6. EMPIRICAL FINDINGS

By examining inflation and output growth of a group of 15 emerging economies in the period between 1995 and 2012 I proceed from the model of Wu described above supplemented by some variables proposed by De Grauwe-Schnabl (2008) and Staehr (2010). As regards institutional and policy dummies – apart from IT – the inclusion of no further regressor seemed to be reasonable as central bank independence legally stipulated and the official exchange regime have had no explanatory power in previous estimations.

If we compare the average output growth and inflation figures for the same countries between 1998 – before 1998 some inflation data even exceed 1000% and therefore difficult to depict – and 2012 and in the last decade we can not discover a reliable relationship between real economic performance and price stability (growth seem to increase with higher inflation) but general convergence can be observed in the sample among countries’ data.

As regards inflation and output regressions, exchange volatility results appear as biased, contributing to both inflation and economic growth in the sample. (Table 1) and the amount of broad money in circulation seems to decrease both probably thanks to high level of foreign currency denominated assets held by private actors.

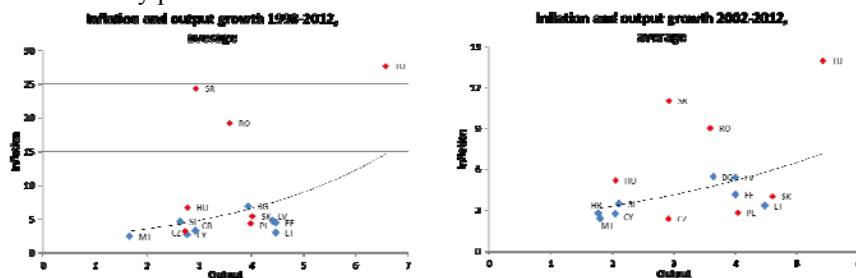


Figure 1 Average inflation and output growth

Notes: BG=Bulgaria, CY=Cyprus, CZ=Czech Republic, HR=Croatia, EE=Estonia, HU=Hungary, LV=Latvia, LT=Lithuania, MT=Malta, PL=Poland, RO=Romania, SR=Serbia, SK=Slovakia, SI=Slovenia, TU=Turkey, IT countries marked by different colour

Source: IMF, Eurostat, 2013, author’s figure

Dependent variable: inflation t

	Coefficient	Std. Error	t-ratio	p-value
it dummy	-6,64287	3,50765	-1,8938	0,05856
inflation t -1	0,727282	0,0206898	35,1517	<0,00001
exchange volatility	77,9384	9,14855	8,5192	<0,00001
GDP growth	-1,01938	0,318701	-3,1986	0,00143
commodity prices	0,0532851	0,087226	0,6109	0,54142
M2/GDP	-4,80497	1,34234	-3,5795	0,00036
export-to-GDP	0,351838	0,0927352	3,7940	0,00016
gross capital investment to GDP	-1,05555	0,235249	-4,4870	<0,00001
public expenditure to GDP	-2,7688	0,429089	-6,4527	<0,00001

R-squared	0,706174	Adjusted R-squared	0,703639
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Dependent variable: GDP growth

	Coefficient	Std. Error	t-ratio	p-value
it dummy	-0,327125	0,257408	-1,2708	0,20428

GDP_growth_1	0,711079	0,0285382	24,9167	<0,00001
exchange volatility	1,74777	0,341727	5,1145	<0,00001
M2/GDP	-0,196377	0,102042	-1,9245	0,05477
treasury bill interest rate	-0,0211974	0,00790026	-2,6831	0,00750
euro introduction	-0,665061	0,527477	-1,2608	0,20786
R-squared	0,721764	Adjusted R-squared	0,719438	

Table 1 Inflation and output growth regressions

Source: IMF, Eurostat, 2013, author's calculation

By regressing quarterly inflation rates (see Table 1) with the help of country-specific and time-variant variables inflation targeting dummy always appears with a negative sign but as significant only at a 10% level. Exchange rate stability (calculated as proposed by De Grauwe and Staehr (2008) against the SDR basket) seems to have a significant bearing on the CPI. At the same time, whereas exchange volatility also contributes to output growth in the period examined, inflation targeting seem to have a negative impact on the countries' real convergence even this negative lacks strong explanatory power.

The model with the highest R^2 value was selected for both inflation and output growth. Some variables could not be involved in the same regression as endogeneity might distort their coefficient and p values, therefore the number of variables is rather restricted. As proposed by De Grauwe and Schnabl (2008) and Staehr (2010) it is advisable to repeat the examination in a GMM framework to better tackle the problem of the endogeneity between data in a future research.

7. CONCLUSIONS

In the times of great moderation inflation targeting was widely acknowledged as a system which plays a crucial role in inflation stabilisation and even smoothes output volatility. The period of the recent global financial crisis further strengthened views on the adequacy of the inflation targeting regime. If we closer investigate the convergence process of Central and South Eastern Europe we have to ascertain that compared to fixed exchange regimes and exchange targeting the IT strategy has not brought surplus in the fight against inflation and in the real economic catching up of transformation economies based on empirical results. There are countries which successfully carried out financial stabilisation relying on foreign currency pegs and could avoid suffering greater losses caused by the extreme volatility of the exchange rate. From a theoretical viewpoint inflation targeting still does provides an extra gain: it involves economic actors in the game between the monetary authority and the public, channels expectations and therewith makes them more aware of the interaction between economic policy and their everyday economic transactions.

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MAIN ECONOMIC, POLITICAL AND SOCIAL CONSEQUENCES OF THE EUROPEAN CRISIS IN PERIPHERAL COUNTRIES

JEL classification: H69

Abstract

The European crisis has triggered a series of economic, political and social consequences in the European Union, particularly for the euro zone member states and this has generated a public discussion about the pertinence of a single currency. This paper presents some of the social, political and economic consequences. One of the main consequences of the crisis in peripheral countries is higher unemployment. The political reconfiguration at the national-level in some European countries is presented. The pressures on labor markets are high and there is a reconfiguration in the immigration and emigration in Europe.

Keywords: crisis, European Union, migration

1. INTRODUCTION

The economic, political and social consequences of the crises have been present in most member states but particularly in peripheral countries such as Greece, Ireland, Portugal and Spain. An increase in public debts, a boost in the risk premium, high unemployment, political instability and a change in migration patterns are among the challenges that peripheral euro zone member states are facing.

The European economic governance has failed to find prompt and adequate solutions in the wake of the economic crises. Diverse instruments and mechanism have been setup to reduce the negative effects and help the countries in need. The economic consequences are widespread and the bailouts have assisted in stabilizing some financial systems but have failed to thwart the economic downturn.

This paper analyzes the main economic, political and social consequences of the crises in peripheral countries by emphasizing some of the internal and external issues as well as the system failures that were present and released a spillover effect. The governments of these countries and their citizens are suffering the ample consequences of the crises and are, in some cases, frustrated by the slow and inadequate response by international and European institutions.

2. MAIN ECONOMIC CONSEQUENCES OF THE EUROPEAN CRISIS

The European Union (EU) is facing one of the worst economic crises over the past 60 years of history. The current crisis has placed the EU in a vulnerable position to international investors and demonstrated the system failures of an incomplete Monetary Union. The European economic governance has been seriously questioned for its lack of reaction towards recent problems.

The current crisis is the product of two crises: the financial crisis that began in September 2008 with the Lehman Brothers' bankruptcy in the United States (US) which rapidly spread to the rest of the world, and the sovereign debt crisis that initiated in October 2009 when the former Greek Prime Minister Georgios Papandreou stated that the Greek public deficit was higher than what had been announced months before by the previous prime minister. The 2009-2012 period has been catastrophic for the EU in general, but mainly for the peripheral countries because they have fallen into an economic downturn.

The launch of the euro impacted on the risk associated with each of the countries belonging to the euro area, i.e. there was a convergence in the risk premium among all members of the Economic Monetary Union (EMU). In order to enter the EMU, euro area members have to pass economic tests, in addition to the Stability and Growth Pact (SGP) restricted public deficits, but the different characteristics of the economies of the euro-zone do not correspond to the same risk.

Interest rates on bonds of euro zone governments converged from 1995 to 1999. Since 1999, the risk associated with the bonds of euro zone governments was practically the same. The fact is that although 12 countries share the same currency, their economies do not necessarily have the same conditions. There were economies like Germany and Finland with high competitiveness, which contrasted to others like Greece and Spain with low competitiveness.

In the late 2008, the credit fell and investors observed very closely the public finances of governments. From 2009 the risk premium increased for peripheral countries like Greece, Ireland, Portugal and to a lesser extent, Italy and Spain, but in summer of 2012, the risk premium of the latter countries

reached record levels. The European Central Bank (ECB)'s decision to buy an unlimited debt in the secondary market in September of 2012 has helped to reduce the risk premium of the peripheral countries of the euro zone, so that for the first quarter of 2013, there has been a significant decrease in the risk premium.

The economies of Ireland and Spain have already been bailed out in order to stabilize their financial systems, in the case of Spain specifically its "Cajas", while the bailouts in Greece and Portugal have been implemented to generate solvency, because these economies did not have enough liquidity to cover the payment of short-term bonds. In all four cases the bailouts were implemented after a significant increase in the risk premium.

Before the financial crisis broke, the euro zone economy was growing around 2% per year. However, in 2009 there was a drop of the economic activity of 4% (Figure 1). Figure 1 shows the economic growth in the euro zone and forecasts for 2013. This figure illustrates how after the fall in the economic activity of 2009, there was another with a lesser extent in 2012, the latter as a result of the sovereign debt crisis in peripheral countries. According to the International Monetary Fund, the forecast of economic growth for the euro zone in the coming years will be below 1.5%.

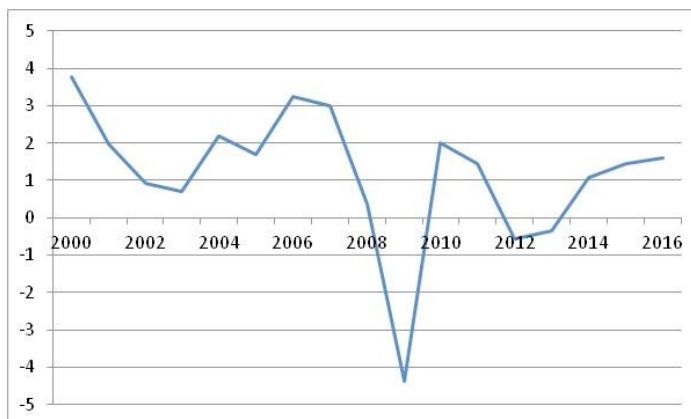


Figure1. Economic growth in the euro zone and forecasts from 2013 to 2016

Source: *International Monetary Fund, World Economic Outlook Database, April 2013.*

Some experts have mentioned that economic crisis in the euro zone is a result of high spending in recent years. However, when comparing debt (% GDP) in the euro zone with the US, from 2000 to 2008 the euro zone debt has remained stable (Figure 2). The increase in debt, as a result of the financial crisis in late 2008, has been lower in the euro zone than in the US, so that argument is not entirely valid.

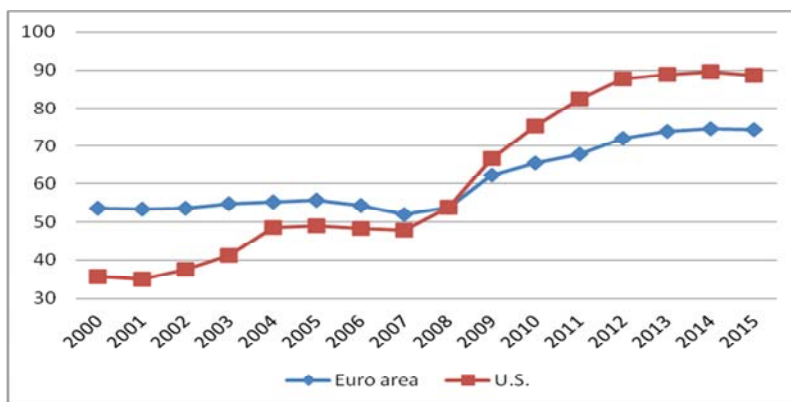


Figure 2. Government debt (% GDP) in the US and the Euro area

Source: International Monetary Fund, World Economic Outlook Database, April 2013.

Public debt in the euro area members varies considerably to euro zone average. Figure 3 shows the public debt (% GDP) of some euro zone members. Countries like Greece and Italy have owed public debt with values close to 100% (% GDP), since 2000 while other countries in Figure 3 have had values close to 60% until 2008. With the financial crisis almost all countries increased their public debt, however, countries like Greece, Ireland, Spain and Portugal had sharp increases. The sovereign debt problem is not that the euro zone has overspent, but some peripheral countries recorded increases in public debt.

The US is not exempted of some states spending more than the average. However, the difference from the EU is that there is an adjustment mechanism that serves the states with economic troubles, whereas in the EU there is no such mechanism. The US has a centralized budget that is more than 20% of its economy, while the EU's budget is 1% (fiscal policy remains at national level). Although the European Stability Mechanism (ESM) was created, it cannot be compared to the adjustment mechanisms that exist in the US.

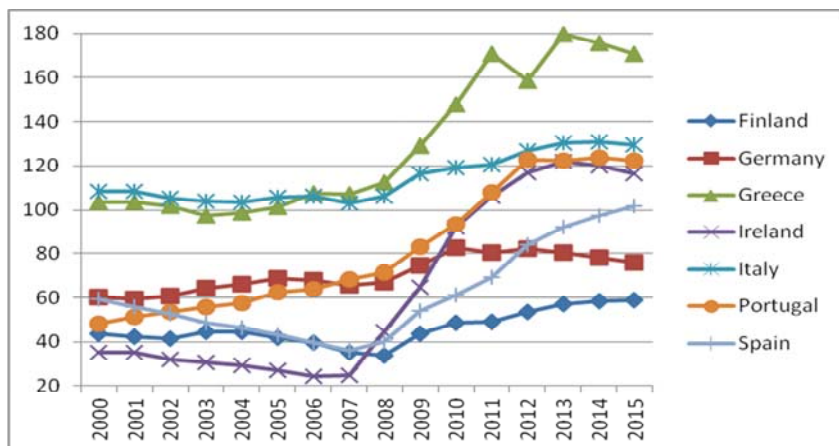


Figure 3. Government debt (% GDP) of some Euro area countries

Source: International Monetary Fund, World Economic Outlook Database, April 2013.

The impact of the sovereign debt crisis has hit European countries differently. On the issue of unemployment is where the greatest differences were noticed in the euro zone, because labor markets in the euro zone have different degrees of flexibility (Bernal-Verdugo, Furceri & Guillaume, 2012). Figure 4 shows that Spain and Greece had high unemployment rates in 2012, with levels close to 25%, while Germany had an unemployment rate very close to 5%. Figure

4 also shows that from 2008 there has been a substantial increase in the unemployment rate in countries like Spain, Greece and Portugal, while in Germany the unemployment rate decreased.

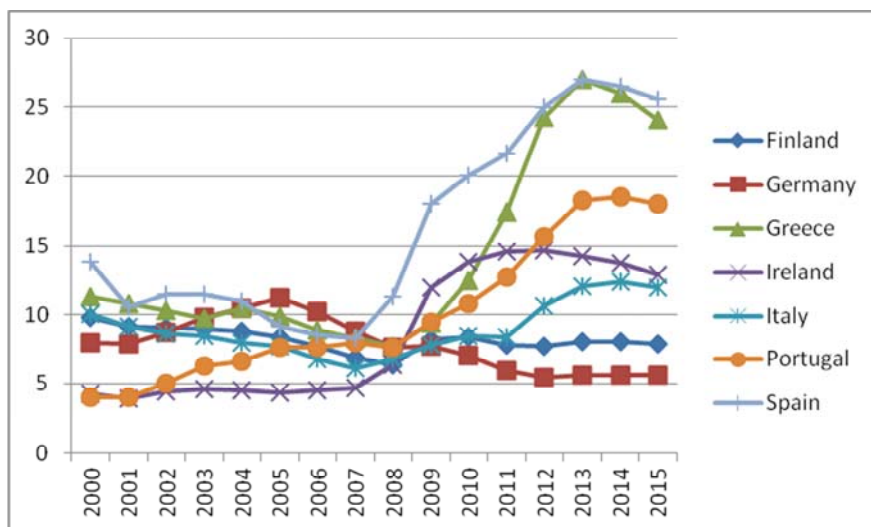


Figure 4. Unemployment rate of some Euro area countries

Source: International Monetary Fund, World Economic Outlook Database, April 2013.

Table 1 shows the current and projected unemployment rates in 2013 and 2014. The euro area will have an increase in the unemployment rate in 2014, but other countries will have a reduction from -0.87 (United States) to -0.04 (Japan). Therefore, in 2014 the unemployment will remain a great issue across Europe.

Table 1. Unemployment rates

Country / Date	Current (May 2013)	Projected (Q4 2014)	Change (points)
United	7.60	6.73	-
Canad	7.10	6.71	-
OECD	8.01	7.85	-
Japan	4.10	4.06	-
Euro	12.20	12.26	0

Source: OECD Short-Term Labor Market Statistics (<http://dx.doi.org/10.1787/lfs-lms-data-en>) and OECD Economic Outlook Databases (<http://dx.doi.org/10.1787/eo-data-en>).

The underlying problem in the euro zone is the competitive gap among member states. Figure 5 shows that Unit Labor Costs (ULC) vary significantly in the euro area because while in Germany the ULC have been decreasing

considerably in the last decade hence becoming one of the most competitive countries, in Spain, Greece, Ireland and Italy their ULC have increased in the last decade. Since 2009, most countries in Figure 5 show a significant reduction of ULC. The difference in the competitiveness of euro area countries is significant, and it is one of the variables that explain the vulnerability in that area.

Although members of the euro zone share the same currency, the economic and financial results are different, so that the financial problem of a small country affects the entire euro zone, while in the US, financial problems or competitiveness gap in the states has no effect on the whole country because there is an adjustment mechanism on a centralized budget, which is much greater than in the EU.

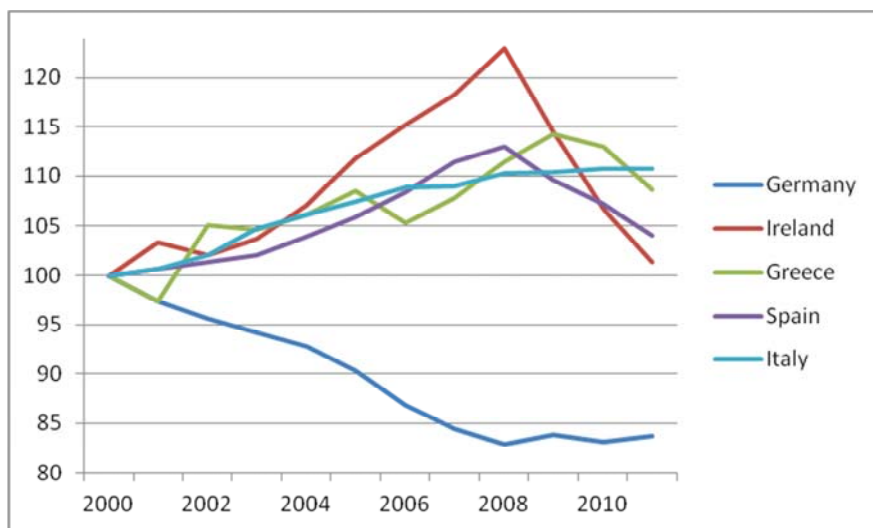


Figure 5. Unit Labor Costs (nominal) of some euro area countries

Source: AMECO Database, European Commission

The issue of moral hazard has been mentioned in the bailouts that have occurred in the euro zone (Jones (2010); De Grauwe, 2011b). Countries that provide money for bailouts, like Germany, have no incentive to grant money, because it creates the risk of generating bad behavior in countries that receive the money. The outcome shows that there is moral hazard: solidarity is more complicated when the Federal State does not have a centralized budget. Gros & Mayer (2010) suggest the creation of the European Monetary Fund, as a measure to bail out European countries. Others authors have highlighted that Europe needs some kind of Political Union (De Grauwe, 2011a) and the joint issue of Eurobonds.

The response of the European institutions has varied over time and has

been differentiated. On the one hand, the ECB implemented programs to provide liquidity and to reduce the interest rate from the beginning of the financial crisis. When the sovereign debt crisis began, the ECB bought government bonds to reduce risk premium, whereas in September of 2012 the president of the ECB bought the debt without limit, reducing the risk premium. On the other hand, the institutional response to stop public debt was the Treaty on Stability, Coordination and Governance, which further restricts the range of public deficit of the euro zone countries.

Since 2010, the Troika (the ECB, the European Commission and the International Monetary Fund (IMF) insisted in implementing austerity policies to the bailed out countries, however there was a change of discourse where austerity measures were requested for longer periods and with flexibility. The serious economic problems of Spain and Greece have caused a relaxation of the Troika in the pursuit of austerity.

3. POLITICAL CONSEQUENCES OF THE EUROPEAN CRISIS

The citizens of the EU have suffered the consequences generated from the global financial crisis (US), the banking crisis (Ireland), and the sovereign debt crisis (Greece), among others. The economic and political decisions taken by government officials have had important repercussions in the quality of their life style. Citizens and politicians protested against the austerity measures and as consequence, in some countries, their heads of state or government had to resign.

The economic crisis has unleashed many debates in the academic world but few have discussed about the political consequences at the internal and international level. In particular, we briefly analyze in this section what happened in Portugal, Ireland, Greece, Italy and Romania to highlight the impact on the internal policy of the aforementioned events.

Since the beginning of the crisis the Portuguese government had stated that they would not resort to a EU bailout. In March 2010, the Portuguese Parliament approved the first SGP that included a reduction in social spending, an increase in taxes for the wealthy and privatization of public companies, among others. Two months later, the Prime Minister of Portugal, Jose Socrates, was able to overcome a censure motion presented by the Marxist left politicians for his crisis measures. In March 11th, 2011, he presented his 4th austerity plan that was rejected by the opposition and provoked the resignation of his government.

While still in function, in April 2011, Jose Socrates requested the activation of a EU bailout, and formally began to negotiate with the IMF and the EU. On May the 3rd, the Portuguese Prime Minister announced that the IMF-EU

bailout rose up to €78 billion for three years. Nevertheless, the political tensions generated by the crisis became an insuperable obstacle for Socrates' government. The Portuguese crisis broke off the day before the approval of the new Financial Stability Mechanisms in the euro zone.

In 2008, the fiscal banking crisis affected Ireland. Brian Cowen's management as first Prime Minister of the Irish Republic coincided with the financial and banking crisis of his country. The government tried by all means to avoid asking for external aid. The euro zone members offered financial aid, however Cowen wanted to avoid a reform package with his creditors, which was a requisite associated to the bailout mechanism approved by the EU. Cowen had to abandon his first position due to the fear of the aid-associated demands. On November 22nd, 2010, the by then Prime Minister of Ireland announced that the government had to increase taxes and lower expense to admissible levels.

Ireland had to be bailed out on November 2010 for 85 billion euros by the IMF and the EU in order to underpin its banking sector. After accepting the IMF-EU bailout, the Irish government sank, leaving the Prime Minister's position unsustainable. According to a poll in Ireland, the bailout reached historical minimums with only 8%¹ of satisfaction to the government's performance. To the Irish people, a bailout means national humiliation, betrayal and to surrender their autonomy to the European Commission, the ECB and the IMF. Hence, Cowen turned in his resignation and called snap elections.

In April 2010, the then Prime Minister of Greece, Georgios Papandreou, heir to a political dynasty, sought support from his European partners to reduce an inherited debt. During the crisis, Brussels fiercely pushed the Greek government to approve the bailout deal. The Greek people, outraged by cuts and austerity measures, protested in the streets and organized general strikes. The first bailout was not enough so a second bailout was necessary.

In this precise context, Papandreou expressed his intention to hold a referendum on the European bailout plan and the membership of Greece in the Eurozone. The Greek Prime Minister was confident that the vote would confirm Greece as a member of the EU.

The internal and external reaction was immediate to Papandreou's announcement; it generated a market panic as well as anger from its European partners. Particularly, Germany and France pushed the Greek Prime Minister to return to the original plans of the bailout. Finally, Georgios Papandreou backed off to the international pressure. This failure and abandonment of his initiative forced him to resign to reach an agreement to form a new unity government in Greece.

In 2011, the Italian economy had been growing at 0.3% and public debt rose above 120% of GDP². In November 2011, the then Prime Minister of Italy,

Silvio Berlusconi, immersed in lawsuits for fraud and sex scandals resigned as Prime Minister of Italy after the EU and the markets forced him to resign in order to support the Italian crisis in return. Indeed, the European crisis had achieved what the Italian liberal parties had failed to accomplish: to end the reign of Berlusconi on the Italian political scene.

Having lost the parliamentary majority, Berlusconi announced he would resign his position ~~after the budgets with the adjustments~~ required by Brussels for 2012 were approved. No doubt the strong action of the president of Italy, Giorgio Napolitano, had achieved what seemed impossible to many: to speed up

¹ <http://www.thejournal.ie/cowen-insists-i-will-lead-ff-into-next-election-2010-12/>

² Eurostat. Available at: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsdd e410&plugin=1> Berlusconi's exit of power. Until the end, after 17 years in Italian politics, Berlusconi kept the tension in a country where the economic and political times are difficult.

The crisis strongly affected Romania, which requested a loan of 20 billion euros to the ECB, IMF and EU. The adjustment measures applied by the Romanian Prime Minister, Emil Boc, included: to reduce by a quarter the salaries of civil servants and to raise VAT, among others. These measures were well received by the EU and the IMF, but strongly rejected by the Romanians. Consequently, Emil Boc resigned to the mass protests that rejected the austerity measures backed by the International Monetary Fund.

The internal and external pressures have created tensions in the political level, mainly in European governments and some of them have not resisted the attack. The situation is critical and the forced departure of governments has failed to reduce the effects of the European crisis. In some cases, it has had the opposite effect than the expected and has worsened the political crisis. Undoubtedly, the European crisis has shown the fragility of the system and has claimed victims in its wake, overthrowing governments.

With the looming threat of contagion and the uncertainty of the euro, European leaders decided to bailout the indebted countries like Greece. Countries like Germany initially disagreed with other Eurozone members with regard to the collective rescue of Greece. Germany's position was simple: to exclude from the Eurozone those countries, which did not respect the rules and threaten the euro. However, the European Commission along with countries such as France pressured the German Chancellor to reach an agreement. Later, France and Germany agreed a plan to bailout Greece with the IMF and the Eurozone countries.

The crisis revealed shortcomings in the functioning of the Eurozone:

The level of political and economic integration to support the euro is insufficient; there is lack of cooperation among the members of the euro zone; a tool to appropriately manage any crises was non-existent; there was a lack of control and supervision of the European Commission on the Public Accounts member countries.

At the European Council in 2011, the 17 members of the Eurozone, along with the countries, which aspired to join the EU, agreed to sign a new treaty that would put strict limits on spending and government borrowing with penalties for those governments that violated the limits. The other members of the EU were prepared to join the treaty, subject to parliamentary vote, except for the UK.

The Euro group's³ role as coordinator and European economic governance body has become more important since the European crisis broke off. The Troika has imposed austerity measures to the bailed out governments; its mission is to monitor the fulfillment of the program according to its commitments. Both actors play an important role in decision-making bodies,

³ Meeting of the finance ministers of the EU: The ECB President, Economic and Monetary

Affairs Commissioner and the Chairman of the Eurogroup Working Group. control and monitoring of the agreements reached at the respective bailouts environment requested by the European governments.

In the European political scene, substantial changes can be observed before and after the European crisis. The European political reconfiguration is partly explained by the changes that arose as a result of internal and external political pressures. Some governments were overthrown by strikes and protests, others lost the support of their coalition governments, and some succumbed to external political pressures.

4. CRISIS, UNEMPLOYMENT AND IMMIGRANT WORKERS

International migration is a global phenomenon that is growing in complexity, effect, and scope, and Europe is no exception. Most economies in the world are simultaneously countries of origin, transit and destination, for thousands of international migrants. Traditional immigration patterns are fuelled by changing demographic, economic, political and social conditions (Ratha, Mohapatra and Silwai, 2010). These patterns affect the size and structure of immigrant population as well as societies, markets and economies in countries of origin and destination. And Europe has been a key part of these dynamics.

The global financial crisis at the end of 2008 severely disrupted

economic growth and caused significant setbacks affecting migration patterns worldwide. According to the International Labor Organization (Awad, 2009), the current crisis will cost 20 million jobs worldwide, forcing individual migrants to go back home and discouraging those potential migrants. Under this panorama, labor markets are observing an increasingly job competition between natives and migrants.

The current context observes a world economy slowly recovering, fostered mainly by developing and emerging economies performance (Martin, 2009). Most developed countries are still struggling and there is not a specific date for a complete recovery. This slowdown has had many different effects. In the case of Europe, most economies shift to a fiscal austerity scenario to reduce expenses and future debt commitments.

This context has created a new “jobless scenario” with economic and social pressures around. OECD (2009) considered that it would take another five years before employment and labor demand are back to pre-slowdown levels. Martin (2009) considered that large developing and emerging economies would be leading the world post-crisis recovery. Asia and Latin American are key regions for this future scenario.

Southern European countries are among the areas highly affected by the crises. At the end of 2010, the native population began to struggle with unemployment and the impossibility to cover the monthly mortgages payments, increasing the risk of losing their homes. This new scenario increases pressure over the local economies, reducing the prospect for growth and development. Unemployment became a threat to the economy and social stability. Immigrant populations in Europe have been suffering rising unemployment levels, doubling the impact observed on native population (Ratha, Mohapatra and Silwai, 2010).

Immigration flows to Europe have noticeably slowed in the last year, raising essential questions about the effect the current global economic crisis is having on inflows and return migration (Pajares, 2009). These questions appear particularly overwhelming because there has been no comparable recession in recent decades. The economic crisis has had an impact on both immigration and emigration flows in Europe (Awad, 2009). Immigration levels have slowed while emigration has increased in some EU countries. During the global economic downturn emigration levels of non-European residents increased in some EU countries, still unclear how many have returned to their home country or migrated to other destinations within or outside Europe.

At the beginning of 2000, about 20 million persons were unemployed in the EU-27, around 9% of the total labor force. By 2012 the unemployment rate for the Euro area-17 reached 11.8%. One of the most affected labor markets in Europe is Spain, by 2009 more than 4 million people were unemployed;

representing 18% of the active population, and the unemployment rate for natives was nearly 16% and 28% for foreigners (Urso and Schuster, 2013). The prospective is that the unemployment rate could be higher without increasing emigration. In 2012 more than 280,00 Spaniards moved out of their home communities looking for jobs. The difference between the unemployment rates for foreigners and natives had been increasing, with the rate for foreigners almost doubling compared to that for natives (Kahanec, Zaiceva, & Zimmermann, 2009).

The impact of a high unemployment rate has been affecting the Spanish economy. In the beginning of 2010, more than 1 million households (1,220,000 households) have all of their active members on unemployment rolls. For some immigrant individuals, labor mobility became a constant, moving from industry to another in order to survive with the economic crisis.

Pajares (2009) considered that unemployment and the economic crisis have significantly deteriorated the living conditions of many foreign residents due to the higher rates of irregularity and employment in the informal economy, which has limited their ability to access unemployment benefits. The crisis has made it more difficult for immigrant labor to renew their work permits and to meet rent or mortgage payments in shared homes. The living conditions of immigrant communities are expected to get worse when more foreign workers run out of unemployment benefits. The economic crisis is affecting the Spanish demographic scenario, causing the flows to shift again. According to data from INE, more individuals are leaving Spain than moving to it. Net migration in 2011 was reported at negative 50,090 people, with 507,740 leaving Spain and 457,650 arriving.

Under this financial crisis, Spain appeared to be entering in a new phase of international migratory patterns. Spain is once again becoming a sending country, and to some degree, Latin America is playing a key role in this new scenario (Urso and Schuster, 2013). According to INE, more than 15,000 Spanish individuals had left their country to establish residence in Latin America in 2011.

Latin America offers a stronger economy for Spanish immigrants, most of them with relatively high levels of education and professional qualifications. Approximately 57% of the Spanish population overseas (1 million individuals) chose Latin America as their primary destination. Argentina, Venezuela and Brazil accounted for more than 300,000 Spaniards. The additional incentives include: a common language, historical and cultural ties, and the continued presence of family and friends who emigrated in past generations and stayed as permanent residents. Latin America has historically played an important role in Spain's migratory cycles—both as a sender and as a recipient.

Germany is also experiencing new immigration flows from Spain.

Highly qualified immigrants from Southern Europe had been arriving to the country in the search of new opportunities. Most of the Spanish immigrants arriving to Germany are young, well-educated and multilingual. They recognized the negative economic and labor prospects at their homeland and decided to move abroad (Urso and Schuster, 2013). These new migrant patterns observe similarities to those conformed half-century ago. In the 1960s, guest workers from Southern Europe, and particularly Spain, were the first large immigrant group to move to West Germany looking for better job opportunities. Now a new generation of labor migrants is arriving to Germany, due to a lack of job positions and opportunities that their native land cannot provide.

Migration from Spain has specific characteristics; high skilled individuals are entering the German labor market to work in university laboratories, research centers and high-tech companies (OECD, 2009). Instead of applying to jobs others are not willing to do, they are moving into spaces where human capital is needed. Immigrants who came to Germany in the past were significantly less qualified than those who chose other countries as their new homes.

In the context of the crisis, the demand from the Spanish labor market is for fewer and more specialized workers. Maybe the major challenge in arriving at an assessment of the impact of the economic crisis on international migration is the lack of dependable and timely data. Many data remains unknown, but preliminary data is already emerging from national and international organizations that allow some tentative considerations to be made.

5. CONCLUSIONS

The global financial crisis led to a credit crunch globally, although in developed countries it was deeper. Despite having started in the housing sector in the US, in 2009 most developed countries had a sharp drop in production. And Europe was no exception, with several variations, but all of the countries in the EU registered an economic contraction.

The launch of the euro led to a convergence in the risk associated with the bonds of the euro zone governments. The global financial crisis led to an premium, mainly in peripheral European countries. In 2010, a sovereign debt crisis began in the euro zone and some countries were bailed out, like Portugal, Ireland, Spain, Greece and recently Cyprus. This crisis was not anticipated by the European institutions so they created new tools that would help the economic governance of the euro zone, most notably: the Treaty on Stability, Coordination and Governance, the ESM, the establishment of the Troika and a new temporal function *de facto* of the ECB (the unlimited purchase of government debt in the secondary market.)

The crisis increased sovereign debt of countries like Greece, Portugal, Spain, Ireland, and Cyprus, causing such countries to request bailouts. The bailouts came conditioned to austerity policies of public spending cuts and tax

increases, which would cause even steeper drop in economic activity. The economic consequence of the financial crisis was that the unemployment rate in countries such as Spain (27.17%) and Greece (24.5%) increased to historic levels, which has led to social discontent.

The financial crisis caused a poor economic performance in the EU Member States, which led to alternation of political parties in governments where elections were held, as in the case of France and the UK, among others. Also in some cases, the economic impact of the crisis led to call snap elections, as in Spain and Greece, while in Italy, with a high risk premium, the former Italian Prime Minister Silvio Berlusconi was forced to resign to give way to a technical government headed by Mario Monti.

The financial crisis has had two main consequences on migration. The first is that migration to peripheral European countries began to decline and has even taken place the phenomenon of return, due to the high loss of jobs in countries like Spain, Greece, Portugal, Ireland and Italy. The second consequence is that internal migration has increased in the EU, because it has increased the movement of people from European peripheral countries to Germany.

The financial crisis in Europe has lasted for more than four years, unemployment has increased mainly in the peripheral countries, there was an alternation of political parties in government and increased internal migration within Europe. Finally, the financial crisis has led to an unfinished institutional change in the EU, which has been the result of different preferences on economic austerity. The Franco-German axis has been reconfigured, because some fissures have been generated as a result of the preference of Germany for austerity policies.

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GERMANY'S SUSTAINABILITY STRATEGY IN THE CONTEXT OF THE UN GREEN ECONOMY APPROACH

JEL classification: Q01, O13

Abstract

The United Nations declared at the Rio+20 Conference in 2012 that a “green economy in the context of sustainable development” is a chance for poverty eradication and economic development in the institutional framework of sustainable development (United Nations, 2012). The German Government supports the UN approach for a green economy (BMBF and BMU, 2012) and declared that on the basis of a comprehensive understanding of the connection between the economy, finance and politics, and recognizing ecological boundaries and limits, environment-friendly qualitative and therefore sustainable growth should be achieved (BMBF and BMU, 2012). A green economy is now regarded as a solution for present and future social problems, and alluding to Dennis Meadows (Meadows, 2008), we can define it accordingly: A green economy is not the place you are going to. It is how you make the journey to sustainable development. We are now looking for a measuring framework for this journey. The question of the measurability of sustainability is the key to the implementation of sustainable development because as Hamilton and Atkinson clearly put it: “If current systems of economic indicators do not clearly signal that the economy is on an unsustainable path, the policy errors will be made and perpetuated (Hamilton and Atkinson, 2006).”

The Sustainability Gap Index (SGI), developed by the authors, calculates the degree to which sustainability is achieved in Germany. The index shows whether Germany is on a sustainable path according to the goals

set by the German Government in its sustainability strategy (German Federal Government, 2012a, German Federal Government, 2012b). The index enables us to compare the normatively (politically) defined sustainability order of the German Government (goals) with the actual "behaviour" of German society and with the interpretation of science and policy. The index enables us to answer the question of whether Germany is "better off" in sustainable categories of the green economy. The calculations of the sustainable indicators help us to understand where political action is needed in the transition process of the green economy towards sustainable development of German society

Keywords: *green economy, sustainable development, sustainability gap index*

1. GREEN ECONOMY

1.1. Green economy in the context of sustainable development

The International Energy Agency (IEA) stated in the World Energy Outlook 2008 that "the world's energy system is at a crossroads. Current global trends in energy supply and consumption are patently unsustainable — environmentally, economically, socially. But that can — and must — be altered (IEA, 2008)." The United Nations responded to this development and at the Rio+20 Conference in 2012 declared that the green economy should take place "in the institutional framework of sustainable development (United Nations, 2012)," and "is an approach to achieving sustainable development (United Nations, 2011)." The green economy is now seen as a process for achieving sustainable socio-economic development. The German Institute for International and Security Affairs interprets the green economy as a global concept that "has the potential to function as a central implementation strategy of the guiding principle of sustainable development (Simon and Dröge, 2011a)."

The UNEP supports this model and defined green economy in contrast to the old fossil-fuel-based brown economy (UNEP, 2011) "as a strategic economic policy agenda for achieving sustainable development (UNEP, 2011)." The UNEP green economy concept is mainly built on the weak sustainability concept and the fundamental work of Pearce (Pearce and Atkinson, 1992, Pearce and Barbier, 2000), Pezzey and Dasgupta (Pezzey, 1989, Dasgupta, 2008).

In 2011, UNEP stressed that a green economy does not only focus on current environmental and economic problems but also has to address inter- and intragenerational issues (UNEP, 2011). Another important aspect of the green economy in the view of UNEP is replacing the current brown technologies by new green technologies, which means "setting thresholds and altering technologies are important for achieving a green economy (UNEP, 2011)."

Hence, the energy sector is at the centre of this technological transition from the brown to the green economy (Rifkin, 2012, UNEP, 2011), as Rifkin stated by supporting the view of UNEP and IEA: “Our industrial civilization is at a crossroads. Oil and the other fossil fuel energies that make up the industrial way of life are sunseting (Rifkin, 2012).” Rifkin also explained his view of a third industrial revolution to Chancellor Merkel in Berlin in the following way: The “industrial induced CO₂ emissions are threatening the viability of life on Earth, [he sees] a sustainable post-carbon future [and] finding that new vision requires an understanding of the technological forces that precipitate the profound transformations in society (Rifkin, 2012).” Germany is now trying to find its way to the green economy to implement a sustainable development of German society supported by the German ministries (German Federal Ministry of Education and Research, 2012).

1.2. Germanys green economy approach

After the Rio+20 conference, the German Federal Ministry of Education and Research and the German Federal Ministry of the Environment presented their model for a green German economy. The two ministries also regard the concept of the green economy as a tool for the implementation of sustainable development in Germany (German Federal Ministry of Education and Research, 2012). The OECD calls Germany a laboratory for green growth (OECD, 2012).¹

A central aspect of this transition project is the realization of a sustainable energy system (German Federal Ministry of Economics and Technology (BMWi), 2012). The German government sees its current energy transition programme as an instrument that “boosts green innovations, creates jobs, and helps Germany position itself as exporter of green technologies (The Heinrich Böll Foundation, 2012, German Federal Ministry of Economics and Technology (BMWi), 2012).²” The German Federal Ministry of Economics and Technology will spend €3.5 billion up to 2014 “to support research and development into sustainable energy technologies (German Federal Ministry of Economics and Technology (BMWi), 2012).” The German government argues that the realization of the green economy requires sustainable production and consumption patterns to ensure prosperity for coming generations (German Federal Ministry of Education and Research, 2012).

The competitiveness and the resilience of German society should be sustained by the green economy, because only the preservation of natural resources and attention to the planetary boundaries will in the long run protect the social cohesion of society (German Federal Ministry of Education and Research, 2012).

1 <http://www.oecd.org/newsroom/environmentgermanyalaboratoryforgreengrowth.htm>

2 <http://energytransition.de/>

With its new green economy approach, the German government is building a bridge from the concept of weak sustainability to the strong sustainability concept by considering both the weak sustainability of the UNEP and also taking into account the findings of the Holling sustainability concept: the resilience of systems and the importance of the planetary boundaries.

Holling argues that “resilience, ..., determines how vulnerable the system is to unexpected disturbances and surprises that can exceed or break that control (Holling, 2001).” Perrings developed a concept of resilience based on the work of Holling and Pimm:

1. “The concept of resilience has two main variants. One is concerned with the time taken for a disturbed system to return to some initial state and is due to Pimm (1984) (Pimm, 1984).
2. A second is concerned with the magnitude of disturbance that can be absorbed before a system flips from one state to another and is due to Holling (1973) (Holling, 1973).

Both variants deal with aspects of the stability of system equilibria, offering alternative measures of the capacity of a system to retain productivity following disturbance (Perrings, 1998).”

The German government is now transferring these characterizations of the sustainability of ecological systems to the socio-economic system to characterize the new framework of the green economy. The green economy is, based on the considerations of Pearce and Markandya (Pearce et al., 1992), an instrument to stabilize the development of the German socio-economic system with respect to the distortions of the globalized world economy. Green economy is seen as an instrument to enhance the resilience of German society.

A green economy is now regarded as a solution for present and future social problems, and alluding to Dennis Meadows (Meadows, 2008), we can define it accordingly: A green economy is not the place you are going to. It is how you make the social and energy journey to sustainable development. The green economy delivers the instruments to achieve sustainable development (Pearce et al., 1992).

We are now looking for a measuring framework for this journey to inform the public about the status of the implementation of the green economy and to avoid the impression “that the current broad international approval [of green economy] constitutes little more than lip service (Simon and Dröge, 2011b).” The question of measurability is a central issue for the implementation of a sustainable development of society and the energy sector (Schlör et al., 2013) because as, Hamilton and Atkinson clearly put it: “If current systems of economic indicators do not clearly signal that the economy is on an unsustainable path, the policy errors will be made and perpetuated (Hamilton and Atkinson, 2006).”

The sustainability gap index, developed by the authors, calculates the degree to which sustainability has been achieved on the basis of the German sustainability strategy and delivers information about the development of Meadows' journey in the German energy sector and German society.

We are looking now for a sustainability concept and a suitable database for our measuring concept.

2. INDICATORS FOR MEASURING THE PROCESS OF THE GERMAN GREEN ECONOMY

Based on the UN Sustainability Strategy (United Nations, 2001), the German Federal Government defined a quantitative sustainable development strategy for Germany (German Federal Government, 2002a, German Federal Government, 2002b) in preparation for the Rio+10 Conference in Johannesburg in 2002 (United Nations, 2002).

This sustainable strategy was the first attempt by the German Federal Government to define a normative quantitative sustainable order for Germany (Schlör et al., 2004). The real sustainability order of a society can be observed by the social actions of households (Schlör et al., 2013), and reveals the households' preferences for sustainable development, thereby showing the real meaning of sustainability for society.

In order to measure sustainable development, the sustainability order of society has to be compared with the political targets of the German sustainability strategy (Schlör et al., 2008). These targets define the normative sustainability order of the German government. The sustainability indicators enable us to measure the sustainability gap (Ekins, 2001, Ekins and Simon, 1999) - the difference between these two orders, determining the degree to which the development of society is (un)sustainable (Schlör et al., 2013).

The government defines 4 key issues, 21 subthemes with 37 indicators to measure sustainable development in Germany (German Federal Government, 2002a, German Federal Government, 2012a) and reveal the current status of the process of the German green economy.

Theme: Intergenerational equity (IE)

15 subthemes: energy productivity, primary energy consumption, raw material productivity, GHG emissions, renewable primary energy consumption, renewable final energy consumption, renewable electricity production, land consumption, biodiversity, federal public deficit, investment, innovation, education, university education, university starters.

Theme: Quality of life (QL)

14 subthemes: GDP/capita, kilometre tonnage, passenger kilometres, share of shipping in freight transport service, share of rail in freight transport service, nitrogen, ecological agriculture, air quality, health men, health women, share of young smokers, share of smokers in total population, share of total population with obesity, number of criminal acts.

Theme: Social cohesion (SC)

6 subthemes: employment total (15-64 age), employment (55-64 age), day care children 0-2 age, day care children 3-5 age, equal opportunities for women, integration.

Theme: International responsibility (IR)

Two subthemes describe IR: development cooperation and open markets.

The government has set up indicators and sustainability targets for these key issues to avoid the impression that its strategy is merely a list of good intentions.³ The government uses its targets to define its understanding of the sustainable development of German society. Although there have been three changes of government in the meantime, the 2002 sustainability strategy still remains valid and was updated in 2012 in preparation for the Rio+20 conference 2012 (German Federal Government, 2012a, German Federal Government, 2012b).

3. MONITORING THE GREEN ECONOMY PROCESS BY SUSTAINABLE INDICATORS

We developed our index to aggregate the indicators of the German sustainability strategy to one index (Schlör et al., 2008): the sustainability gap index. Our sustainability measuring concept is based on the indicator and index definitions and the aggregation methodology of the OECD and UNDESA (OECD Working Group on Environmental Information and Outlooks, 2002, United Nations Department of Economic and Social Affairs, 2000).

3.1. The sustainability gap index (SGI)

³ *The indicators and its specific targets can be found in the progress report of the German government GERMAN FEDERAL GOVERNMENT 2012a. National sustainable strategy. Progress report 2012, released cabinet paper, (published in German: Nationale Nachhaltigkeitsstrategie. Fortschrittsbericht 2012 (released cabinet paper). Berlin (Germany): Deutsche Bundesregierung.*

Whether sustainable development has been achieved in the German energy sector can be determined by an analysis of all quantifiable indicators of the German sustainability strategy. The sustainability gap index measures the way society has to go to meet all the sustainability goals of the German society and of the German energy sector.

The indicator is derived in the following way. The single indicators are calculated:

$$I_{y,j}(n) = \left(\frac{F_y(n)}{SD_y(n)} \right)_{\substack{\text{base} \\ \text{year}=100}}, \quad y=\text{year}, j=\text{compensation method}, n=\text{indicator} \quad (1)$$

$$I_{y,j}(n) = \frac{\text{actual result (F) of the indicator (n) in the analysed year (y), compensation method (j)}}{\text{sustainability strategy target (SD) of the indicator (n) at the target year (y), j}} \quad (2)$$

The single indicators $I_{y,j}(n)$ will be aggregated to a superordinate index, which enables us to measure the sustainability system in one single index (Schlör et al., 2008, Schlör et al., 2013).

$$ISD(n)_{y,j} = \frac{1}{N} \left(\sum_{n=1}^N AF_n \cdot I_{y,j}(n) \right), \quad n=1, \dots, N, AF=1, j=SSC, SSSC, y=\text{year} \quad (3)$$

$I_y(n)$ = activity indicator (n) (i.e. energy productivity in 2010), N= total number of indicators, AF= weighting factor.

The sustainability gap can be calculated for the single indicators:

$$SD - Gap(n)_{y,j} = \left((I_{y,j}(n)) - 1 \right) \quad (4)$$

For the single theme:

$$SD - Gap^i_{y,j} = \frac{\sum_{n=1}^M SD - Gap^i_{y,j}(n)}{M}, \quad (5)$$

m = indicators of the single theme, i=theme, y=year, j=compensation method.

And for all indicators, we calculate the index:

$$SD - Gap_{y,j} = \frac{\sum_{i=1}^4 SD - Gap_{y,j}(i)}{4} \quad (6)$$

We determine the SD gap by the equal theme method in allusion to the equal-pillar method (Schlör et al., 2013).

In the equal-theme method, it is assumed that the four themes are treated equally however many indicators the theme may have. Therefore, the parallel equivalence of the indicators and the four themes can only be reached if the number of indicators is the same in each of the four theme pillars. If the indicators are not equally distributed, this leads to a different weighting of the indicators. The first theme "intergenerational equity" of the sustainability strategy covers 15 indicators, the second theme "quality of life" 14 indicators, the third theme "social cohesion" 6 indicators and the fourth theme "intergenerational equity" 2 indicators. Hence, in our measuring concept the themes are treated equally but the indicators are not.

The *SD – Gap* just measures the sustainability gap, i.e. the difference between the targets of a specific year set by the government in its sustainability strategy and the actual value of the indicator. The sustainability gap determines the distance the German society has to cover to attain sustainable development.

Every indicator I_n therefore documents an aspect which is, according to the German sustainability strategy, important for the sustainable development of society. We also introduce a weighting factor of $AF=1$, which enable us to treat the single indicators differently by summing up the indicators to one index. However, we make the assumption that all indicators are equal, because the German government did not mention any other procedure for dealing with the indicators. Hence, any weighting factor other than 1 would be our own interpretation and would not be covered by the sustainability strategy of the German administration (Schlör et al., 2008, Schlör et al., 2011, Schlör et al., 2013).

The sustainability gap index (SGI) developed by the authors calculates the degree to which sustainable development has been achieved or not. If the SGI is negative, then development is not sustainable. If $(SGI \geq 0)$, then development is sustainable according to the targets set by the German government.

We can therefore summarize that the sustainability indicators of the German sustainability strategy and its targets are instruments to analyse, using the sustainability gap index, whether German society and its sectors are on the way to sustainable development. The index delivers information on how Germany is managing the green economy process.

In this context, the question has to be answered of how an overfulfilment of sustainability goals should be interpreted. The sustainability concept of the Federal Government does not offer a method for solving this problem. In the following section, we offer two interpretations of how this area could be treated: sustainability surplus compensation (SSC) and sine sustainability surplus compensation (SSSC) (Schlör et al., 2013).

3.2. Sine sustainability surplus compensation (SSSC)

Sine sustainability surplus compensation means that we interpret an overfulfilment of the sustainability goal as meeting the sustainability target, so that an overfulfilment of one sustainability indicator (surplus) cannot compensate for failing to reach a different sustainability target (Schlör et al., 2013).

With the assumption of sine sustainability surplus compensation, we obtain the following equation:

$$x_n = \frac{F(n)}{SD_G(n)} = \frac{\text{actual results}}{\text{sustainability goal}} ; x_n \geq 1 \rightarrow x_n = 1; n=1, \dots, N. \quad (7)$$

This means that all indicator values above 1 are interpreted as 1: The indicator thus meets its sustainability target.

3.3. Sustainability surplus compensation (SSC)

By contrast, sustainability surplus compensation means that overfulfilment can compensate the underfulfilment of any other indicator. In the best case, sustainability losses can be completely compensated by a sustainability surplus (surpluses) (Schlör et al., 2013).

This concept can be described by the following equation:

$$x_n = \frac{F(n)}{SD_G(n)} ; x_n \geq 1 \rightarrow x_n \geq 1, n=1, \dots, N. \quad (8)$$

Thus, both compensation methods (SSSC, SSC) define the framework and the degrees of freedom a system has on the way to sustainable development (Schlör et al., 2013).

We will concentrate our analysis not only on German society but also on the German energy sector, because the energy sector is at the centre of the transition process to a green German economy.

4. THE SUSTAINABILITY GAP IN THE GERMAN GREEN ECONOMY

4.1. Sustainability gap

Table 1 shows the current status of the sustainable development of German society and of the German energy sector according to the targets set in the German sustainability strategy.

The table shows that German society is described by 37 indicators and 31 quantifiable indicators. The analysis reveals that two indicators (GHG emissions and university starters) already met or exceeded their sustainability targets in 2010. In the field of ecological agriculture, German society has to bridge the biggest gap (-0.71) to reach its sustainability target. Hence, we obtain only small differences between the two compensations methods. The sustainability gap for the whole of German society is -0.252 in the case of sustainability surplus compensation and -0.254 in the case of sine surplus compensation. Hence, we can summarize that German society has on average met 75% of its 2020 targets, but efforts in coming years will have to be ambitious to meet all the targets in 2020.

Table 1

Sustainability Gap/Surplus of the German Green Economy

Themes	Number of Indicators	Indicators, target year	SD-Gap/ <i>SD-Surplus</i>	
			SSC	SSSC
Intergenerational Equity	1	Energy productivity, 2020	-0.31	-0.31
	2	Primary energy consumption, 2020	-0.19	-0.19
	3	Raw material productivity, 2020	-0.27	-0.27
	4	GHG emissions, 2010	0.06	0.00
	5	Renewable primary energy consumption, 2020	-0.25	-0.25
	6	Renewable final energy consumption, 2020	-0.39	-0.39
	7	Renewable electricity production, 2020	-0.51	-0.51
	8	Land consumption, 2020	-0.66	-0.66
	9	Biodiversity, 2015	-0.33	-0.33
	10	Federal public deficit, no target year		no goal
	11	Investment, no target year		no goal
	12	Innovation, 220	-0.07	-0.07
	13	Education, 2020	-0.16	-0.16
	14	University education, 2020	-0.02	-0.02
	15	University starters (freshman share), 2010	0.01	0.00
Quality of Life	16	GDP/capita		no goal
	17	Kilometre tonnage, 2020	-0.14	-0.14
	18	Passenger kilometres, 2020	-0.05	-0.05
	19	Share of shipping in freight transport service, 2015	-0.25	-0.25
	20	Share of rail in freight transport service, 2015	-0.28	-0.28
	21	Nitrogen, 2010	-0.08	-0.08
	22	Ecological agriculture, no target year	-0.71	-0.71
	23	Air quality, 2010	-0.31	-0.31
	24	Health men, 2015	-0.19	-0.19
	25	Health women, 2015	-0.16	-0.16
	26	Share of young smokers (12-17 age), 2015	-0.08	-0.08
	27	Share of smokers in total population, 2015	-0.15	-0.15
	28	Share of population with obesity, no target year		no goal
	29	Number of criminal acts, 2020	-0.03	-0.03
Social Cohesion	30	Employment total (15-64 age), 2020	-0.03	-0.03
	31	Employment (55-64 age), 2020	-0.08	-0.08
	32	Day care children 0-2 age, 2020	-0.71	-0.71
	33	Day care children 3-5 age, 2020	-0.47	-0.47
	34	Equal opportunities for women, 2020	-0.57	-0.57
	35	Integration, 2009		no goal
International Responsibility	36	Public development cooperation, 2015	-0.44	-0.44
	37	Open markets, 2010		no goal

Source: German Government, 2012, German Statistical Office 2012, and own calculations 2013

Based on the results of the single indicators, we obtain the following values for the sustainability gap index of Germany and of the energy sector.

4.1.1. Sustainability gap index Germany

The data of table 2 shows that the four themes are not developing in the same way but that all indices are negative. The current development of Germany is not sustainable irrespective of the chosen compensation method. The data reveals that the compensation method only reduces the index by about 0.01 from -0.314 to -0.313. The compensation method only influences the theme of intergenerational equity, because both indicators with positive sustainable development belong to this theme.

The results reveal that the theme quality of life has the smallest distance to cover for sustainable development. The theme of intergenerational equity has to bridge a slightly greater distance to achieve sustainable development. Social cohesion and international responsibility have a significantly greater distance to cover to reach sustainable development for their themes.

Table 2

Sustainability gap index of Germany and of the German energy sector

Themes	Germany		Energy		Energy sine GHG emissions	
	SSC	SSSC	SSC	SSSC	SSC	SSSC
Intergenerational equity	-0.237	-0.243	-0.266	-0.236	-0.320	-0.320
Quality of life	-0.202	-0.202	-0.206	-0.206	-0.206	-0.206
Social cohesion	-0.372	-0.372	no energy indicators		no energy indicators	
International responsibility	-0.440	-0.440	no energy indicators		no energy indicators	
All themes	-0.313	-0.314	-0.236	-0.240	-0.263	-0.263

Source: German Government, 2012, German Statistical Office 2012, and own calculations 2013

4.1.2. Sustainability gap index of the German energy sector

When we analyse the energy sector, we see that the energy sector is described by 12 indicators in the German sustainability strategy and the energy sector covers one third of all indicators, which shows the importance that the energy sector has for sustainable development and for the green economy. With GHG emissions the energy sector also has one indicator which has already exceeded the sustainability target of the sustainability strategy. This good result is mainly caused by the closure of industrial plants in eastern Germany after 1989 (Fleischer, 1997).

The overall sustainability gap of the energy sector is -0.236 in the case of sustainability surplus compensation and -0.240 in the case of sine sustainability surplus compensation the gap. The gap is smaller than in the overall system of the whole of German society. If GHG emissions are excluded from the energy sector, the sustainability gap of the energy sector is greater than in German society.

We can conclude that German society has to invest more in the German energy sector to meet the sustainability targets. The German government is taking up this challenge in its new energy policy concept (German Federal Ministry of Economics and Technology (BMWi), 2012).

4.1.3. Summary

The analysis of the single indicators reveals the heterogeneity of the development of the indicators. To obtain a more comprehensive picture of the development of the indicators, we calculate the standard deviation of the indicators of the four key themes.

Table 2

Standard deviation of the sustainability indicators

Key themes	Germany		Energy sector		Energy sine GHG	
	SSC	SSSC	SSC	SSSC	SSC	SSSC
Intergenerational equity	0.200	0.193	0.164	0.147	0.104	0.104
Quality of life	0.175	0.175	0.096	0.096	0.096	0.096
Social cohesion	0.270	0.270			no energy indicators	
International responsibility	0	0			no energy indicators	

Source: German Government, 2012, German Statistical Office 2012, and own calculations 2013

In the case of Germany, the standard deviation of the indicators reveals the distance of the values of the indicators from their arithmetic mean in the specific theme. The standard deviation of the theme of social cohesion is greater than of the other themes. The standard deviation of the theme of international responsibility is zero, because this theme contains only one measurable indicator.

The standard deviation also shows that the values are higher in the case of the sustainability compensation method than in the case of the sine sustainability compensation method, because permitting overfulfilment of the indicators (i.e. GHG emissions) in the case of sustainability surplus compensation enlarges the distance between the indicators.

In the energy sector, we see a slightly different picture of the development of the energy indicators. The development of the standard deviation of the energy sector shows that the average distance of the single indicators from the arithmetic mean is smaller than in the overall system of German society. The measured values of the single indicators of the energy sector are closer to the arithmetic mean than the other indicators. The energy indicators are developing in more or less the same way. This development can be revealed more clearly if we exclude the GHG emissions from the energy sector. The standard deviation thus becomes smaller. The development of the remaining energy indicators follows an even more similar development.

The results show that the standard deviation is significantly lower in the energy sector than for the indicators of the whole of society. The energy sector is developing in more homogeneous manner towards sustainability than the indicators for the whole of society. In the case of the sine surplus sustainability compensation method (SSSC), we also detect that the indicators for Germany and for the energy sector are developing in a more probable way, because in that compensation method the values of the indicators which are greater than 1 are interpreted as 1. This reduces the distance between the indicators.

5. CONCLUSION

Our analysis has shown that the German government interprets the green economy as a process for the realization of sustainable development. The German green economy concept represents the adoption of the UN Green Economy

approach approved by the Rio+20 conference. We have also shown that the German green economy approach is building a bridge between the weak and strong sustainability concepts to establish a consensus view on sustainable development.

A central aspect of the green economy is the implementation of a sustainable energy system. Against this background, we developed the sustainability gap index (SGI) as a measuring framework for monitoring the transformation process of the energy system based on the German sustainability strategy and its measurable targets. The sustainability gap index (SGI) enables us to deliver data about the current status of the energy journey and inform the public about the progress of the German energy transition in the context of the German green economy. The index is an instrument for monitoring Meadows' journey.

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FDI AND ECONOMIC GROWTH IN CROATIA ACCORDING TO ECONOMIC THEORY

JEL classification: F21,F43

Abstract

The aim of this paper is to analyse influence of foreign direct investments (FDI) on economic growth of Croatia in period between 1995.and 2011. According to economical theory FDI have positive influence on economical growth of the country receiver of investments. The question that this paper is trying to answer is: Is economical theory in case of Croatia confirmed or are the circulation of chosen macroeconomic indicators of economical growth contrary to the expectations. In the paper is analysed the influence of the FDI on employment, GDP, export and investments.

The first part of paper describes economical theory and expected consequences of the FDI, the second part of the paper describes movement of the FDI in Croatia, with overview on the structure and short comparison with the transition countries. The third part of the paper is the analysis of FDI relating to each of above mentioned economical indicators of economical growth.

The analysis shows that foreign direct investments do not influence on chosen indicators or that FDI do not influence significantly. Based on the given results that are opposite to economical theory the conclusion is that problem is mainly in the structure of FDI with special emphasis on small part of greenfield investments.

Keywords: *FDI, economic growth*

1. ECONOMICAL THEORY AND EXPECTED CONSEQUENCES OF THE FDI

“Foreign direct investment (FDI) is a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy in an enterprise that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship.” (4th Edition of the OECD Benchmark Definition of Foreign Direct Investment)

Economical theory explains the FDI through the motives of receiver and giver. In theory, expected consequences of the FDI are explained in context of country, and not in the context of specific company. Generally speaking, FDI is more suitable channel for accumulation than credits on international market. It is the best way for transfer the ideas, know-how and technology. Receiver motive, as well as expected consequences, is general social benefit through economical growth, decreasing unemployment, positive influence on foreign trade, increasing of export, increasing of labour productivity.

General social benefit directly follows from aspects such as paid income taxes by multinational companies to national budget, transfer of knowledge and skills, raising qualification of employees and quality of labour, increasing of domestic products on foreign market, increasing the efficiency of domestic manufacturing sectors by imposing competition and consequences from increasing efficiency of rest of the economy known as ‘spillover’. According to theory and economical intuition FDI should increase demand for domestic raw materials and domestic products in generally, and FDI should contribute to diversification of economy structure of country receiver of the investments. Generally, FDI, according to economical theory, has positive effect in national economy on macro as well as on micro level.

Positive effect of FDI on export was proven by Barry and Bradley(1997) on data from Irish. Their conclusion was that increasing of export was significantly influenced by foreign manufacturers because the investment was mainly focused on export. Similar positive connection between export and foreign investments found Jensen(2002) in Poland. His analysis showed that FDI influenced positive on technological intensity of polish export. FDI can directly induce commerce and economical activity for country receiver through increasing the efficiency of domestic investments. According to Bosworth and Collins(1999) the FDI has positive effect on investments in transitional countries. If the receivers of the FDI are transitional countries the effect of capital inflow can be covering the current account deficit and fiscal deficit.

Gruben and McLeod(1998) analysing countries in development confirmed positive connection between FDI and economical growth. The same year Borensztein, De Gregorio and Lee(1998.) confirmed the existing of positive relation between increasing efficiency of domestic investments and FDI using data from 69 countries in development. Analysing data form transition countries of Central and Eastern Europe Lovrinčević, Marić and Mikulić(2005) confirmed “crowding-in effect”, positive relation between FDI and domestic investments. Verhon and Vasarevc(2011) confirmed that both domestic capital and FDI were statistically significant factors in producing the economy growth in Central and Eastern Europe during the 1992 – 2007 time period. Todaro and Smith(2003) state that the FDI is effective instrument in covering differences between planed government income and realised income. Kraft and Galac(2000) analysed increasing competitiveness trough inflow of foreign investments and effect on competitive environment in banking sector and concluded “It is obvious that arrival of foreign banks only partly intensified competition.”

However, FDI can cause and negative effect on the receivers economy. According to Graham and Krugman(1995) one of the costs caused by inflow of the FDI is decreasing of employment as a result of labour rationalisation. The negative effect can be increasing of net import as a result of higher import from central companies or through impact on income in balance of payment because of insignificantly investment of profit in companies made by FDI. Some authors are sceptical towards FDI due to the fact that it makes good platform for monopoly, and there by that it can have great influence on country economical policy. One of the possible disadvantages of FDI inflow is reducing manufacturing of domestic companies or reverse transfer of knowledge, technology and know-how from country receiver of investment to country that invests. Barry and Bradley(1997) deal with negative impact of multinational companies on domestic manufacturers by taking over part of the market. Furthermore, economical policy that is too concentrated towards multinational companies can cause economical instability in country receiver of investments.

There are a large number of studies regarding relation between FDI and economical growth and although most of them confirmed positive impact of FDI on economical growth, some of the studies confirmed negative impact of FDI on

economical growth through monopoly and instability of country on its developing path through distracting country interests. Number of studies that we can't neglect doesn't find significant impact of FDI or even finds negative effects (Gorg,Greenaway,2003)

2. FDI IN CROATIA

Inflow of FDI in Croatia (Figure 1) can be divided into three periods. First period lasted up to 1998 with a minimum annual investment inflow of 2 billion euro of which 79% are equity investments. The second period is a result of privatisation of telecommunications, financial sector and Greenfield investments in trade sector from 1998 up to 2009 in which 55% are equity investments. The third period, in which Croatia is today, is a direct consequence of global crises and major downfall of FDI.

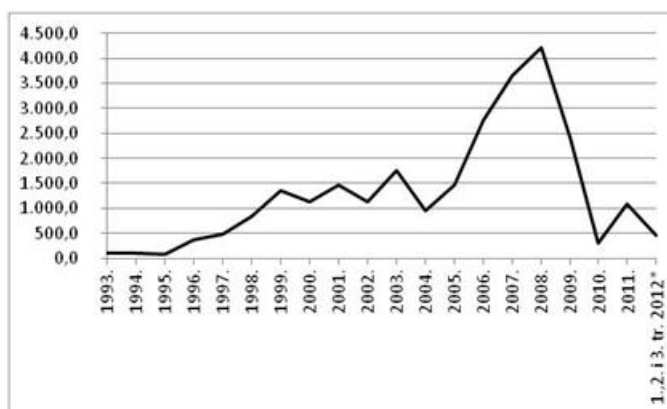


Figure 1. Inflow of FDI in Croatia (in million euro)

Source: Made by authors according to Croatian National Bank data

The latest data on foreign direct investments shown by UNCTAD's inward FDI performance index (Figure 2.) shows that Croatia has lowest ranking in the 2010. Rank is covering 141 economies, and according to this indicator Croatia is ranked 112th place in 2010 which is the lowest rank since 1993.(UNCTAD, 2011)

	1993	1995	2000	2005	2006	2007	2008	2009	2010
Croatia	80	105	46	52	36	31	27	44	112

Figure 2. Inward FDI Performance index

Source: UNCTAD, World investment report 2011.

Cumulative overview of investments in Croatia (Figure 3) clearly justifies Inward Performance Index. During the conflict period (1991 – 1995) average annual FDI inflow was only 189,2 million euro, with remark that data on FDI in Croatia are lead only from 1993. In period from 1993 to 2000 Croatia generated 4.488,4 million euro, while in the following 8 years Croatia generated 17.419,9 million euro of FDI inflow. After the war, FDI in Croatia took off, increasing significantly on the annual basis. Therefore, conflict period and consequences of war in Croatia lead to significantly FDI inflow not until 1996 when the inflow of FDI was higher than the sum of inflow from 1993 till 1995. Positive world investment climate, and a fact that significant number of companies went through privatisation process lead to rapid increase of foreign capital.

In the late 1990s, major privatisations occurred in the banking and telecommunications sector. Privatisation of service was particularly attractive to foreign investors because it was an easy market access and opportunity for the monopoly power. Export oriented manufacturing wasn't so attractive as it had limited access to the European market at the same time. In the 2000 the privatisation process slow down mainly due to the concerns of corruption. "In Croatia in 2012, the State holds a minority stake in over 600 companies and more than 50% of assets in over 60 companies. Seeking to leverage increased investor attention on the back of its accession to the EU, Croatia is set to reinvigorate its privatization drive." (UNCTAD, World investment report 2012) Regarding to listed date this is one of the most successful result accomplished in Central and East Europe. "Croatia compares favourably to its neighbours in terms of FDI attraction relative to the size of economy." (UNCTAD, World investment report 2012) But, by strengthening economical and financial crises Croatia deals with huge decreasing of FDI. In 2010 there was 4 billion euro of FDI less than in 2008 which is fall of 94%. (Martišković, Vojak, Požega, 2012)

Figure 3. Total Fdi and FDI by cumulation

	Total	Cumulation
1993.	101	101
1994.	92,8	193,7
1995.	79,1	272,9
1996.	382,1	655
1997.	480,2	1.135,20
1998.	849,7	1.984,80
1999.	1.362,90	3.347,80
2000.	1.140,60	4.488,40
2001.	1.467,50	5.955,90
2002.	1.137,90	7.093,80
2003.	1.762,40	8.856,10
2004.	949,6	9.805,70
2005.	1.467,80	11.273,60
2006.	2.764,80	14.038,40
2007.	3.651,30	17.689,70
2008.	4.218,60	21.908,30
2009.	2.415,00	24.323,30
2010.	297,5	24.620,80
2011.	1.075,30	25.696,20
2. i 3. tr. 20	452,7	26.148,90

Figure 2 Total FDI and FDI by cumulation

Source: Croatian National Bank

Privatisation process can easily be followed by inflow of FDI (Figure 3). For example, in 2004 in Croatia data show decrease of FDI, and that is certainly consequence of lack of bigger privatisation project. Up to 1998 about 70% of investment was in processing industry, while in 1999 that percentage is only 20%. (Sisek,2005)

Major fall of investments in 2010, 2011 even in 2012 can certainly be justified on grounds of crises. Negative and significant influence of crises in transitional country was proven by Globan(2011) But, when speaking of Croatia we have to mention bad rating as a country with high risk what most certainly is a great barrier for FDI inflow. When analysing Croatia's investment climate, the World Bank, the European Union and different commercial services all conclude

that Croatia needs to improve business climate and deal with problems like corruption, bureaucratic procedures and high cost of doing business.

According to the World Bank Doing Business rankings 2013 Croatia is at 84th place among the 185 economies. In 2010 Croatia was 103rd among 183 economies. The country stands particularly low in “dealing with construction permits” (143rd) and “protecting investors” (139th). (World Bank, Doing business 2013 data for Croatia)

2.1. Structure of FDI in Croatia

Analysing data on FDI inflow in Croatia one might conclude that Croatia (looking from prospective of positive influence of FDI mentioned earlier) is at enviable position towards other transitional countries. But, influence of the invested capital can not be judged only by its quantity. The structure and composition of the invested capital is of the greater importance than the quantity.

Most of the FDI in Croatia is a result of privatization processes and went into already existing companies. Although foreign capital that inflows through privatisation could have same effects as greenfield investments, in Croatia privatisation process was based on acquisition of companies that were already successful even without privatisation therefore privatisation didn't influence as increase of the competitiveness of export sector.

The greenfield investments (investments into companies established only by foreign capital) are almost negligible. Besides that, most of the investments weren't in export or manufacturing sector. In period 1993-2004 less than 30% of total FDI inflows has been related to new investments. (Šohinger, Galinec and Škudar, 2005)

In period 1993-2012 3rd quarter 33,7% were investments in financial intermediation, insurance and pension funds, 10,1% in wholesale trade and commission trade, 6,8% in real estate activities and 6,6% in post and telecommunications, 6,1% in manufacture of coke and petroleum products while 5,1% went into manufacture of chemical and chemical products and 4,9% in retail trade. Manufacture of other non-metallic mineral products had inflow of 3%, as well as other business activities. Real estate are at 2,5%, and all other activities are 18,2% of total investment inflow up to third quarter of 2012.

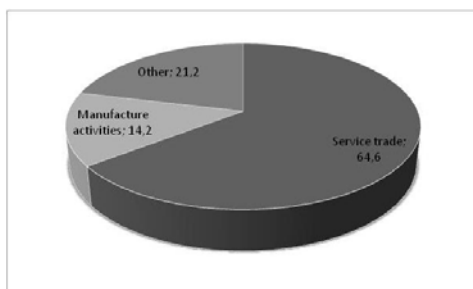


Figure 3 FDI by sector form 1993 to 2012

Source: Croatian National Bank

When reviewing structure of FDI in Croatia it is obviously that most of invested capital primarily went into service sector and has largely focused on serving the domestic market. Structure of service FDI is primarily to banking and telecommunications privatisation in late 1990s. Although the manufacturing sector attracted negligible part of investments it was an important recipient of foreign direct investment in the immediate after war period. The banking sector has been the largest recipient of FDI and up to 2000 the number of State owned banks dropped from 26 to 3, while number of privately-owned banks rose from 18 to 40. By 2000, foreign banks made up to 90% of total banking assets. (Kraft, Stučka 2002) The wholesale trade and commission trade and retail trade has received the second most FDI. The third largest sector for FDI inflows has been chemical and pharmaceutical industry. The petroleum refining sector only began receiving FDI in 2003 when privatisation of INA began, but since then has become fourth largest industry. The ICT sector has also driven FDI inflow by privatisation. FDI has also gone in real estate activities mostly because of tourism.

Already mentioned absence of greenfield investments and adverse structure of investments with mainly inflows in service industry is probably main reason for lack of stronger effects on macro economical indicators. Studies until 2004 confirm thesis that investments in processing sector didn't cause bigger effect on manufacture, productivity or export as it was case in some other transitional countries. (Škudar, 2004) In latest Croatian National Bank report in 2012 it is clearly stated that only half of total FDI went into new projects. New projects are mostly in real estates, tourism and trade. Unfortunately, there are no major investments in manufacturing sector in 2012. (Report CNB, 187, 2012) It is also obviously that unsatisfactory structurally trend is continued in first quarter of 2013. The beginning of 2013 is characterized, next to global risk aversion and global decreasing of investments, by deteriorated perception of risk in Croatia in regard to most of comparable countries. (Report CNB 191, 2013)

Reviewing data on structure of FDI in Croatia it is obviously that Croatia has too little Greenfield investments and that the investments were mainly

focused on privatisation of already existing more or less successful companies. Although, the world greenfield investments 2009 and 2010 had decline in values terms they held steady in 2011 and developing and transition economies hosted more than two third of the total value of greenfield investments in 2011.

2.2. Comparison of Croatia and the transitional countries

When speaking about the significance of FDI in the transition countries two effects are usually mentioned: effect on economic growth and effect on export performance.

Effect of FDI on transition economic was object of several studies. Kinoshita and Campos(2003) did the research for the period 1990-1998 including 25 Central and East European countries. The result of study confirms the hypothesis that FDI have significant positive effect on the economy growth. Lovrinčević, Mikulić i Marić(2004) studied efficiency of investments and FDI in eleven transitional countries in period from 1994 to 2002. Lovrinčević, Buturac and Marić(2004) analysed impact of FDI on domestic investments in transitional countries. Bogdan(2010) analysed relation between foreign investments and economic growth in Europe's post-transitional countries but he didn't find positive relation between analysed variables.

According to the data from UNCTAD world Investment report for 2012 in South-East Europe, manufacturing FDI increased, buoyed by competitive production costs and open access to EU markets. Also, FDI to the transition economies increased by 25 per cent in 2011. FDI flows to transition economies are expected to grow further in 2012 and exceed the 2007 peak in 2014. (UNCTAD World investment report 2012)

When comparing inflow of FDI in Croatia with neighbour countries in South-east Europe, statistic is more than satisfying. In 2006 out of total FDI gone into South-east Europe 35,9% went into Croatia, in 2007 39,8%, in 2008 48,8, in 2009 40,47%. The lowest inflow compared to other South-east European economies was in 2010 only 10%. In 2011 inflow rose again to 22,46%.

According to UNCTAD Investment report FDI to the transition economies of South-East Europe recovered strongly in 2011. In South-East Europe, competitive production costs and access to European Union markets drove FDI and inflows to transition economies are expected to continue to grow in the medium term reflecting a more investor-friendly environment.

Although Croatia because of the war wasn't in good position compared to other transitional countries, if GDP per capita is compared in some of transitional economies in period 1993 – 2012 conclusion is very interesting. Better than Croatia were only Czech Republic, Hungary and Estonia. The data given in Figure 4. looks very encouraging, but the impression is changed by looking at the structure of FDI and caused consequences.

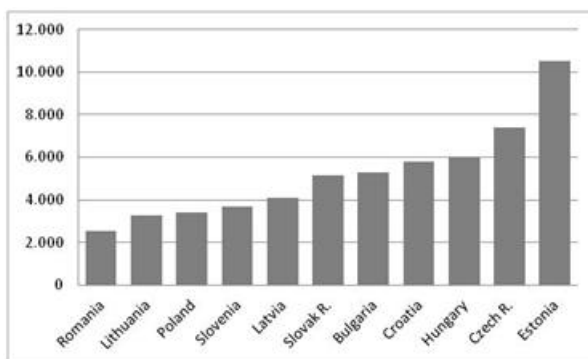


Figure 4 FDI per capita for selected transition economies, 1993 - 2012

Source: Croatian National Bank

3. ANALYSIS OF RELATIONS BETWEEN FDI AND SELECTED MACROECONOMIC INDICATORS

Considering the fact that capital in modern time is almost completely free to move between economies it is very interesting to see whether there is relation between FDI and some of the indicator of economic growth. For purpose of this paper we will try to determine whether there is relationship between FDI and employment, GDP, export and gross fixed-capital formation using linear regression. It is important to emphasize that most of the similar analysis didn't confirm FDI theory of positive impact on economy receiver of FDI.

3.1. Model and Data

FDI data was retrieved from Croatian National Bank, while employment, GDP per capita, export and gross fixed-capital formation data was retrieved from Croatian Bureau of Statistic. Data used in analysis is for period 1995 – 2012. Data is annual which means that there are eighteen observations.

The regression analysis was done using a model of simple linear regression. Dependent variable (Y) are export, GDP per capita, gross fixed-capital formation and employment, while independent variable is (X) foreign direct investment. Determining the characteristics of relationships between variables in Croatia starts with scatter diagram, and finishes with interpretation of results.

The regression equation is

$$y_i = \alpha + \beta x_i + \varepsilon_i, \quad i = 1, 2, \dots, n \quad (1)$$

where α and β are unknown parameters, and variable ϵ is error term in model. Model with estimated parameters is

$$\hat{y} = \hat{\alpha} + \hat{\beta}x. \quad (2)$$

The regression value is calculated by using the expression

$$\hat{y} = \hat{\alpha} + \hat{\beta}x_i, \quad i = 1, 2, \dots, n. \quad (3)$$

The regression value is estimation of dependent variable Y with real value of independent variable X , and difference between the regression value and real value of dependent variable is error term $\hat{\epsilon}_i$.

3.2. FDI and export

The impact of foreign direct investments on Croatian manufacturing exports was analysed by Vukšić (2005). Vukšić concluded that foreign direct investment had positive and statistically significant impact on export, but that this impact was very weak. Kersan-Škabić and Orlić (2009) tried to determine whether there is a relationship between trade and FDI inflow in Croatian economy and in what direction. They came to conclusion that FDI have no direct link with trade. Kersan-Škabić and Zubin (2009) determined that FDI inflow doesn't have effect on the GDP growth and export.

Scatter diagram in Figure 5 is showing correlation between dependent variable export and independent variable foreign direct investment. Linear determination coefficient is $r^2=0.633855$, and correlation coefficient is $r=0,79615$. This is a reasonably large value, and indicates a real relationship. The correlation is reasonably strong and positive between variables in period from 1995 to 2012 in Croatia.

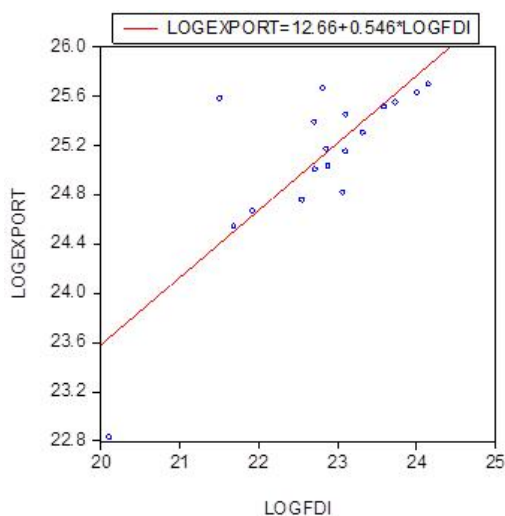


Figure 5 Scatter diagram and regression line for variables export and FDI in Croatia in period 1995-2012

In analysis we used log-log model so that variables used in analysis were

$$\begin{aligned} LOGEXPORT &= \log(EXPORT) & LOGFDI &= \log(FDI) \\ (4) \end{aligned}$$

Equation of regression model with estimated parameters is

$$\hat{Y}_{LOGEXPORT} = 12.6630252289 + 0546025389079x_{LOGFDI} \quad (5)$$

The linear regression result interpretation is:

If direct foreign investments increase by 1%, export will average increase by 0,546025%

Average deviation of empirical values of dependent variable from line of regression is shown by estimation of standard deviation $\sigma_{\square} = 0.419233$. According to F-test and signification of regression for export, p-value is 0,0001 and with $\alpha = 0,05$, null hypothesis of this test, that says that regression is not significant, is rejected. In model all assumptions that justify use of linear regression model have met.

3.3. FDI and employment

Already mentioned Kersan-Škabić and Zubin (2009) determined that impulse in foreign direct investment significantly influence on reducing employment in country, before as well as after takeover of company.

Scatter diagram in Figure 6 is showing correlation between dependent variable employment and independent variable foreign direct investment. Linear determination coefficient is $r^2=0.416686$ what means that FDI explains little of the variation in employment. The correlation coefficient is $r=0,645512$ which means that the correlation is relatively week and positive between variables in period from 1995 to 2012 in Croatia.

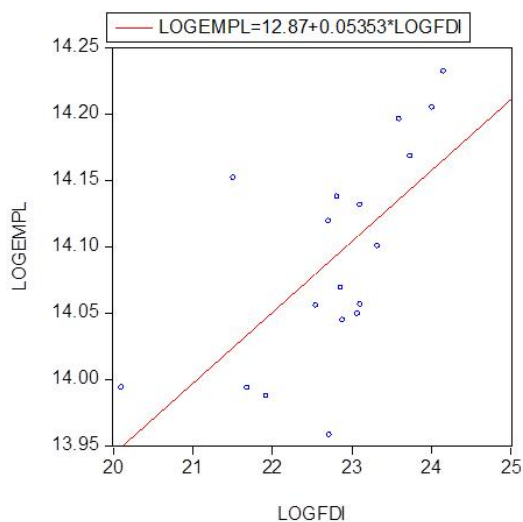


Figure 6 Scatter diagram and regression line for variables employment and FDI in Croatia in period 1995-2012

In analysis we used log-log model so that variables used in analysis were

$$\begin{aligned} LOGEMPL &= \log(EMPL) & LOGFDI &= \log(FDI) \end{aligned} \quad (6)$$

Equation of regression model with estimated parameters is

$$\hat{y}_{LOGEMPL} = 12.87297 + 0,053528x_{LOGFDI} \quad (7)$$

The linear regression result interpretation is:

If direct foreign investments increase by 1%, employment will average increase by 0,053528%

Average deviation of empirical values of dependent variable from regression line is shown by estimation of standard deviation $\sigma_{\square}=0.063979$. According to F-test and signification of regression for export, p-value is 0,0038 and with $\alpha=0,05$, null hypothesis of this test, that says that regression is not significant, is rejected. In model all assumptions that justify use of linear regression model have met, accept for assumption on autocorrelation. Referring to the Durbin-Watson test for the 5% significance level we reject the null hypothesis of no autocorrelation.

3.4. FDI and gross fixed-capital formation

Lovrinčević, Buturac and Marić (2004) analysed impact of FDI on domestic investments using regression analysis and data of transitional countries. They confirmed hypothesis that inflow of foreign direct investments in period 1993-2003 in average stimulated domestic investments.

Scatter diagram in Figure 7 is showing correlation between dependent variable gross fixed-capital formation (CAPITAL) and independent variable foreign direct investment (FDI). Linear correlation coefficient is $r^2=0.579225$ what means that fdi explains littel of the variation in gross fixed-capital formation. $r=0,76106$ what means that the correlation is relatively week and positive between variables in period from 1995 to 2012 in Croatia.

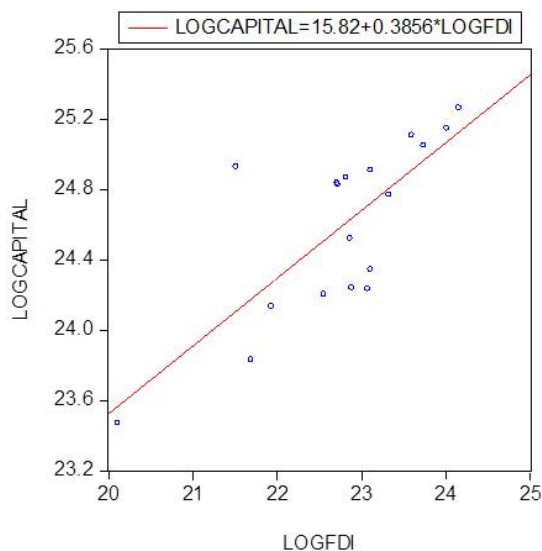


Figure 7 Scatter diagram and regression line for variables gross fixed-capital formation and FDI in Croatia in period 1995-2012

In analysis we used log-log model so that variables used in analysis were

$$\text{LOGCAPITAL} = \log(\text{CAPITAL}) \quad \text{LOGFDI} = \log(\text{FDI}) \quad (8)$$

Equation of regression model with estimated parameters is

$$\hat{y}_{\text{LOGCAPITAL}} = 15.81583 + 0.385587x_{\text{LOGFDI}} \quad (9)$$

The linear regression result interpretation is:

If direct foreign investments increase by 1%, gross fixed-capital formation will average increase by 0,385587%

Average deviation of empirical values of dependent variable from regression line is shown by estimation of standard deviation $\sigma_{\square}=0.331997$. According to F-test and signification of regression for gross fixed-capital formation, p-value is 0,0002 and with $\alpha=0,05$, null hypothesis of this test, that says that regression is not significant, is rejected. In model all assumptions that justify use of linear regression model have met, except for assumption on autocorrelation. Referring to the Durbin-Watson test for the 5% significance level we reject the null hypothesis of no autocorrelation.

3.5. FDI and GDP

This linear regression was made by using data from 1995 to 2011 on annual bases which means that there were 17 observations. Scatter diagram in Figure 8 is showing correlation between dependent variable GDP and independent variable foreign direct investment. Coefficient of determination is $r^2=0.431204$ what means that FDI explains little of the variation in GDP. The correlation is relatively week and positive between variables in period from 1995 to 2011 in Croatia.

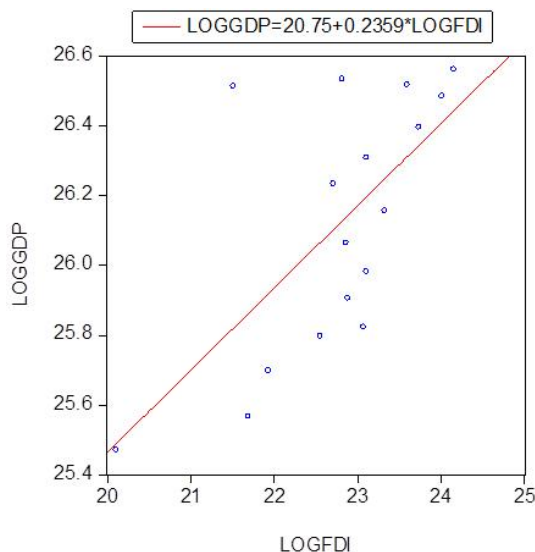


Figure 8 Scatter diagram and regression line for variables employment and FDI in Croatia in period 1995-2011

In analysis we used log-log model so that variables used in analysis were

$$\begin{aligned} LOGGDP &= \log(GDP) & LOGFDI &= \log(FDI) \\ (10) \end{aligned}$$

Equation of regression model with estimated parameters is

$$\hat{y}_{LOGGDP} = 20.74644 + 0.235908x_{LOGFDI} \quad (11)$$

The linear regression result interpretation is:

If direct foreign investments increase by 1%, GDP will average increase by 0,235908%

Average deviation of empirical values of dependent variable from regression line is shown by estimation of standard deviation $\sigma_{\square} = 0.393284$. According to F-test and signification of regression for GDP, p-value is 0,0042 and with $\alpha = 0,05$, null hypothesis of this test, that says that regression is not significant, is rejected. Model has problem with autocorrelation referring to the Durbin-Watson test for the 5% significance level we reject the null hypothesis of no autocorrelation.

According to linear regression analysis three out of four models have problem with autocorrelation. That means that deviations from regression line are unexplained changes of dependent variable in different time correlated and that they were impact by similar factors. Autocorrelation has negative effects on results, and it implicates possible neglecting of significant variables in model. The only model without the autocorrelation problem is model with export. Second problem with models is in their low representative. Again, the only model that has relatively strong representation is model with export as dependent variable. The only representative model, with all assumptions met is model with FDI as independent and export as dependent variable.

4. CONCLUSION

According to economic theory, the effect of the FDI on economic of receiver should be positive regarding economic growth, employment, export, labour productivity and almost all macroeconomic indicators. Although there are some economists that are warning about possible negative effect of FDI, most of them agree that FDI has positive effect on economy in long term.

Indicators for Croatia, as transition country, and FDI inflows could lead to conclusion that Croatia is very successful at attracting foreign investments but reviewing FDI structure one can instantly come to conclusion that Croatia has unfavourable structure of FDI inflow. Most of the inflow was directed into already successful companies through privatisation process, and there was very little of Greenfield investments that are mostly the main generator of positive effect on receiver economy.

Most of studies show that positive effect of FDI in Croatia wasn't accomplished in way that economic theory assumes. Also, studies that confirm economic theory are usually confirming that influence of FDI is not significant. To confirm theory, analysis of FDI and its impact on GDP, employment, export and fixed gross-capital formation was made using linear regression. After analysis three out of four models were ignored because of problem in assumptions of model. But, model with export as dependent variable shows that FDI has positive effect on export what is a confirmation of economic theory. This simplified analysis that is considering only the export is not enough to make general conclusion about impact of FDI on economic growth. Based on the given results of studies, that are opposite to economic theory the conclusion is that problem is mainly in the structure of FDI with special emphasis on small part of Greenfield investments.

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DYNAMICS OF EUROPEAN TAX STRUCTURES

JEL classification: H11, H2, H24, H25

Abstract

The paper is focusing on the European Union countries tax structure changes during the last decade. Deep economic recession in the 2009-2010 and critical sovereign debt levels have forced the European Union countries rethink their tax systems effectiveness to restore growth. One of the aspects of taxation system improvements is related with modifications in of tax structure. There is argued, that the tax structure has an important impact on growth. Taxes supposed not only to facilitate smooth cross border trade activities, but also should generate proper public revenue and not to harm economic growth. Therefore, the Commission invites to increase quality of taxation through more growth-friendly tax structure. The main purpose is to shifting tax burden from “labor to consumption”. The paper maps structural changes in taxation across the EU countries groups. Actually the most of structural changes takes place in the New Member States; at the same time the old EU countries tax structure has remained mostly unchanged. The new EU member states have decreased income taxation burden and increased taxes on consumption.

Keywords: taxation, tax structure, European Union;

1. INTRODUCTION

Since the beginning, the EU tax policies have concentrated on the “elimination of tax obstacles to all forms of cross-border economic activity” and “fight against harmful tax competition” (European Commission 2006). In this framework, the main activities on EU tax coordination has been focusing on indirect tax harmonization, “which may create an instant obstacles to the common market functioning” (*ibid.*). There has been declared that there is “no need for an across the board harmonization of Member States' tax systems”, but in fact, “many tax problems simply require better co-ordination” (*ibid.*)

However, deep economic recession in the 2009-2011 and critical sovereign debt levels in many EU countries have forced the European Commission to widen and refocusing tax policy objectives. There is a concern that tax systems in crisis-countries are not able to fulfill their fiscal tasks – collect adequate amount of public revenues. On the other hand – EU society’s general tax burden became a serious obstacle for economic growth.

In the recent years, some new aspects of the EU tax policies have emerged. The Commission invites to increase “quality of taxation” which means that tax system should generate a proper amount of public revenue and cause minimal harm to economic growth (EU Commission, 2011abc). One of the aspects of taxation system quality issue is a modification of tax structure. That means optimal and efficient allocation of tax burden across various tax subjects. The Commission invites to improve taxation through “more growth-friendly tax structure”, which means shifting tax burden from “labor to consumption” (European Commission (EU Commission, 2011c, p.4-5). Instead of taxing labor activities, the countries should more burden consumption activities; environmental resource use and housing. The EU Commission brings out that those taxes introduce fewer distortions and therefore, make less harm on economy than labor and income taxes (European Commission 2011b, p. 52).

Over the decades taxation studies have been focused mainly on individual characteristics of particular taxes. Some taxes - for example consumption taxes - are efficient on revenue collection purposes. Some other taxes – *e.g.* taxes on individual income – perform as efficient income redistributors. On the growth prospective, there are argued that income taxes are more damaging for the economic growth than property, consumption or environmental taxes (Myles 2009; Johansson 2008).

Studies on taxation structures are relatively new field of academic research. Formations of theoretical foundations for optimal taxation structure were given by Atkinson and Stiglitz (Atkinson and Stiglitz, 1976). Later on, several authors have widened the tax structure studies on various related issues. Also issues of tax compliance, productivity, income redistribution and other aspects are the interest of tax mix studies (Elgar, 2011, Martinez-Vazquez, 2010). Various international institutions have analyzed optimality of taxation structure in relations with efficient public finance and business cycle stability point of view (European Commission 2011; OECD 2012).

However, discussion over the efficient taxation structure should be distinguished from the debates about individual characteristics of particular taxes. Theoretical and empirical studies, which demonstrate particular taxes are more “harmful for growth” than other taxes, are not directly functional on implementing tax reforms. As Martinez-Vazques emphasizes, “.optimal tax literature never provided quick or exact recipes to be followed... optimal tax design requires the use of both direct and indirect taxes leaving open what the optimal tax mix should be” (Martinez-Vazquez, 2010 p. 43). There are no

theoretical and empirical studies available, which provides exact proportions for optimal tax structure.

Therefore the author shares the view that “practical tax reform requires a balance between the aims of efficiency, equity, simplicity and revenue raising“(Johansson 2008, p.1). Tax structure is rather country specific and depends on particular circumstances and society’s preferences. In this reason, the EU Commission invitation to shift the taxation burden from “labor to consumption” can be hardly seen as universal recipe for all EU countries in implementing their tax reforms.

In following will be studied actual changes in tax structure across the European Union countries during the last decade.

1.1. Research focus and terminology

In this text the phrase “tax structure” applies for two aspects - particular taxes are compared with GDP level or share of a particular tax in total tax revenues. Such a taxes distribution (e.g. by types) also named as “tax mix”.

There is considered dynamics of those tax ratios across the region during the decade. The changes of those ratios are interpreted as shifts in taxation structure. Country’s tax structure indicates relative distribution of taxes into different tax types and over taxation bases.

There are several widely recognized classifications of taxes - *e.g.* provided by OECD and the European Union (European Commission 2013, Annex B, and OECD 2012). In this text, the taxes are structured on the basis of ESA95 classification.

Structured by type, the taxes are classified as taxes on production and imports (also indirect taxes); taxes on income and wealth and capital taxes (also as direct taxes); and compulsory social security contributions (shortened in text SSC). Indirect taxes are value-added taxes (VAT); excise duties (*e.g.* on alcohol and tobacco) and other consumption related taxes. Social security contributions include compulsory and voluntary payments to the social security funds, made both by employees and employers.

Another classification of tax structure grounds on their economic function. Here the taxes are classified by their base of taxation. There are generally four bases for taxation – consumption, labor, capital and use of environment. In large - consumption taxes are close with indirect taxes. In turn, labor taxes are summing up personal income taxes and social security contributions. Capital taxation includes taxes on profits and assets related revenues. Characteristics of tax base provide important information about allocation of tax burden over society’s economic activities.

The main purpose of study is to generalize the trends of the EU countries tax structure. The period of analyses cover years 2000-2011 and grounds on the data provided by the *Eurostat*. The countries under consideration are distributed into 3 groups. The first group (thereafter named also EU15 Plus) is “old” EU members; also the group includes Malta, Cyprus and 3 non-EU member countries – Iceland, Norway and Switzerland. The second group (thereafter named EU10 NM or the new EU members), consist 10 EU new member states from East and Central Europe. The third group (as a control group) includes current EU27 member countries (thereafter named also EU27). The reason for such a countries separation is to demonstrate taxation particularities of the different sets of countries. Actually, there are significant differences in taxation structures between EU15 and E10 countries groups.

1.2 General tax developments in the EU

During the last decade, the EU countries total tax burden (incl. SSC) fluctuated around 40% as compared with GDP level. Nevertheless, the tax burden has declined (Figure 1). However, there are existing significant differences in tax burden between old and new EU member states. In the EU10 counties, the tax burden is 7.6 percentage points lower at the end of the period in comparison with the EU15 Plus group and the difference has widened. Also, in the EU10 countries tax burden has decreased faster than in other EU member countries.

Intuitively, there are various reasons behind tax level differences in the different EU countries groups. In the new member countries, the public sector is smaller and less socially focused. Long-term social entitlements (e.g. pension schemes and social guarantees, other) are usually less expanded in those countries. Often the EU10 countries have been focused mainly on economic growth issues and enhancement competitiveness though low-tax business environment. Despite the EU indirect taxation harmonization requirements have forced increase of consumption taxation levels in the EU10 countries; actually, decrease of direct taxes has offset the consumption tax increase and brought general tax level down.

Table 1

Total taxes and social security contributions as percentage of GDP, %

	2000-2001	2002-2003	2004-2005	2008-2009	2010-2011	Change over the period, % points
EU27 (1)	40.6	39.7	39.8	39.8	39.6	-1.1
EU 15 Plus (2)	39.2	38.7	39.2	38.9	38.7	-0.5
EU 10 NM (3)	32.7	32.3	32.2	32.2	31.1	-1.6
Difference (2)-(3)	6.4	6.4	7.0	6.7	7.6	1.2
Max	50.5	48.7	50.7	48.5	48.3	-2.2
Min	29.3	28.2	28.1	28.0	26.6	-2.8

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistic/s/data/database ; section *Main national accounts tax aggregates* and author's calculations

Definitely, the tax burden depends not only from tax rates, but different elements. Tax burden depends also from country's efficiency of tax administration and tax collection capacity; from the extent of shadow economy activities and stage of business cycle – all those different factors have explicit impact on tax burden level. Intuitively, the EU15 Plus countries are usually administratively and institutionally more capable to collect taxes more efficiently, than post-socialist EU member countries.

Taxation burden is also correlated with level of incomes. Table 2 demonstrates the GDP differences by the countries' groups. Despite the fact that during the period the new EU countries' incomes have grown faster, the income differences remained manifold and even growing in comparison with the EU15 Plus countries.

Table 2

Gross domestic product *per capita* in market prices, EUR

	2000-2001	2004-2005	2008-2009	2010-2011	Change over the period, % points
EU27 (1)	19 400	22 100	24 250	24 800	5 400
EU 15 Plus (2)	26 305	30 443	33 377	35 018	8 713
EU 10 NM (3)	4 865	6 960	10 310	10 460	5 595
Difference (2)-(3)	21 440	23 483	23 067	24 558	3 118
Max	50 700	62 450	74 350	80 350	29 650
Min	1 850	2 800	4 600	5 000	3 150

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database; Section *GDP and main components* and authors' calculations

Society's income level is an important factor, which has a clear impact on the society's tax mix. Higher income level allows societies allocate higher burden on direct taxation – e.g. personal incomes – than low income countries do. As will be demonstrated below- lower income countries are using less income and more consumption based taxation in comparison with the richer EU countries.

2. DYNAMICS OF TAX STRUCTURE BY TAX

In the next will be followed structural composition taxes and its dynamics across the EU countries (Table 3). All taxes are split by three type of taxes – direct and indirect taxes and social security contributions (SSC). Interestingly, in average all the tax groups cover about equal share - around 13% as compared with the GDP amount.

In general, during the period indirect taxes and social security contributions have remained rather flat level in GDP comparison¹. At the same time, the direct taxes importance is declined 1% point.

¹ The last column in the tables provides indicators change (*Change over the period in % points*). By the authors scale, the taxes change considered to be “considerable” if it exceeds more than 1% point *as percentage of GDP* or more than 2% points in case of certain taxes share *in total taxes*

Table 3

EU countries tax structure, %

		2000-2001	2002-2003	2004-2005	2006-2007	2008-2009	2010-2011	Change over the period, % points
Total taxes and SSC		40.6	39.7	39.8	40.3	39.8	39.6	-1.1
Direct taxes	As % of GDP	13.6	12.7	12.7	13.5	12.9	12.5	-1.1
	In total taxes, %	33.5	31.9	31.9	33.5	32.4	31.5	-2.0
Indirect taxes	As % of GDP	13.0	13.0	13.1	13.2	12.7	13.1	0.1
	In total taxes, %	32.0	32.7	32.9	32.7	31.9	33.0	1.0
SSC	As % of GDP	12.9	12.8	12.8	12.5	12.9	12.9	0.0
	In total taxes, %	31.7	32.3	32.1	31.1	32.5	32.6	0.9

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/data/database ; section *Main national accounts tax aggregates* and author's calculations

To generalize, certain changes in different tax changes as compared with GDP have taken place. General tax level has decreased. The most observable change is a decrease of direct tax burden share by 2% in all taxes and 1% as compared with GDP level. Such a decline was compensated with less significant increase of indirect taxes and social security contributions. However, indirect taxes cover at the end of the period the biggest share of all taxes. At the beginning of the decade, the direct taxation burden was slightly higher.

Diminishing trend of direct taxes – both in comparison with GDP level and in total taxation – fits with the EU taxation policy goals. However, the progress during the period is relatively slow.

In following the structural changes in taxation are considered by the EU countries groups (Table 4). As presented in the table 1, in the new EU members the tax burden is significantly lower than in older EU countries. What about the tax structure differences between old and new EU membership countries?

Table 4

Current taxes on income and wealth (direct taxes), %

		2000-2001	2010-2011	Change over the period, % points
EU27 (1)	As % of GDP	13.6	12.5	-1.1
	In total taxes, %	33.5	31.5	-2.0
EU 15 Plus (2)	As % of GDP	14.8	14.4	-0.5
	In total taxes, %	37.6	37.0	-0.6
EU 10 NM (3)	As % of GDP	7.7	6.4	-1.2
	In total taxes, %	23.5	20.7	-2.8
Difference (2)-(3)	As % of GDP	7.2	7.9	0.7
	In total taxes, %	14.1	16.3	2.2
Max	As % of GDP	29.8	29.7	-0.2
	In total taxes, %	60.0	61.3	1.3
Min	As % of GDP	6.7	4.6	-2.2
	In total taxes, %	19.6	17.1	-2.5

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/data/database ; section Main national accounts tax aggregates and author's calculations

As said, during the period direct (income) taxes burden have decreased in the all countries groups - as compared with GDP and in total taxation. However, the most significant decline on of the direct tax burden took place in the new member counties. The EU15 Plus countries direct tax burden remained almost untouched.

The burden of direct (income) taxes as compared with GDP has remained clearly higher in the old EU15 countries than in the new EU10 states. The NM10 countries collect about 8% less direct tax than EU15 countries do.

In the new EU member states the income tax burden in total taxes at the end of the period was only 20.7% of all taxes; at the same time, the old EU members' income taxes covered 37% of total taxation.

Differences in use of direct taxes among the groups are also widened during the decade; mainly due to decrease of income taxation burden in the NM10 countries. By the individual countries, the amplitude of taxation burden (max-min amplitude) has also widened.

In general, those significant differences in direct taxation demonstrate the principal distinction on tax burden allocation among the EU different countries groups.

The higher income tax levels are correlating with higher general income levels (Table 2). Actually, that is a typical in the global context – higher income societies rely more on direct taxation than lower income countries do. However, despite the NM10 countries are increasing their income levels, they did not shift the taxation burden more towards income taxation. In opposite, they have decreased income taxation burden! Therefore, the EU's tax shift away from income taxation has taken place on the account of the NM10 countries mostly.

There are two main interrelated aspects, why the new EU membership countries direct taxation ratio has decreased faster than in the old EU countries. First, the new EU members had to harmonize their indirect (consumption) tax levels to the EU regulations. Explicitly, that led to significant tax increases on VAT and other consumption taxes. To compensate the increase of tax burden in those relatively low-income societies, the personal income tax rates were decreased.

Second, the concern about the countries competitiveness forced the new EU10 members to make business environment more attractive through low taxation of business or personal revenues. As an outcome, the governments' increased revenues from indirect taxation, which allowed them to decrease income taxation. As an outcome of lowering personal income and profit tax rates, the burden of direct taxation in the new EU member fell significantly. At the same time, the decline of direct taxation in the old EU15 countries has been insignificant.

Following table 5 demonstrates the dynamics of indirect taxation across the EU countries during the decade. In general, the indirect tax burden has been rather static. The only considerable change is visible with indirect taxes share in total taxation in the EU10 countries.

At the end of the period, the indirect taxes reached 13.1% as GDP level and covered 28.7% of total taxation. The countries' groups demonstrate rather equal level by that indicator. At the same time, production taxation share in total taxation is rather diverse. In the NM10 countries, the indirect taxes cover more than 40% of total taxation, but only 31% in EU15 member states.

Table 5.

Taxes on production and imports (indirect taxes), %

		2000- 2001	2010- 2011	Change over the period, % points
EU27 (1)	As % of GDP	13.0	13.1	0.1
	In total taxes, %	28.2	28.7	0.5
EU 15 Plus (2)	As % of GDP	13.2	13.1	-0.2
	In total taxes, %	31.2	31.0	-0.2
EU 10 NM (3)	As % of GDP	12.9	13.0	0.2
	In total taxes, %	36.9	40.1	3.2
Difference (2)-(3)	As % of GDP	0.33	0.03	-0.3
	In total taxes, %	-5.6	-9.0	-3.4
Max	As % of GDP	17.1	18.2	1.1
	In total taxes, %	42.3	53.0	10.7
Min	As % of GDP	10.6	10.2	-0.4
	In total taxes, %	24.6	24.2	-0.4

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistic/s/data/database ; section *Main national accounts tax aggregates (gov_a_tax_ag)* and author's calculations.

During the period, the NM10 countries have increased use of indirect taxes more than 3% points. That is, decrease of importance of direct taxes (-2.8%) in those countries has replaced by the same proportion increase of indirect taxes. At the same time, in the EU15 Plus countries, both indirect and direct taxes changed only slightly.

Similarly to the direct taxation, min-max amplitude of the indirect tax burden by the individual countries has widened during the period.

Table 5 demonstrates dynamics of social security contributions burden. Similarly to the indirect taxes, their level as compared with GDP has remained during the decade about the same level. Such a situation is somehow surprising because of aging of the European societies and increasing demand for social programs. On the other hand, the SSC importance in total taxes has slightly increased.

Table 5

Actual social security contributions, %

		Average 2000-2001	Average 2010-2011	Change over the period, % points
EU27 (1)	As % of GDP	12.9	12.9	0.0
	In total taxes, %	31.7	32.6	0.9
EU 15 Plus (2)	As % of GDP	10.0	10.1	0.1
	In total taxes, %	25.4	26.2	0.8
EU 10 NM (3)	As % of GDP	12.1	11.4	-0.7
	In total taxes, %	36.8	36.4	-0.4
Difference (2)-(3)	As % of GDP	-2.1	-1.3	0.8
	In total taxes, %	-11.4	-10.2	1.2
Max	As % of GDP	17.4	16.8	-0.6
	In total taxes, %	44.4	45.4	1.0
Min	As % of GDP	1.8	1.0	-0.8
	In total taxes, %	3.7	2.2	-1.5

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistic/s/data/database ; section Main national accounts tax aggregates and author's calculations.

Social security contributions as compared with GDP are rather similar in different EU countries groups. During the decade, the SSC (as compared with GDP) have somewhat decreased in the NM10 countries and remained about the same in EU15 states. At the end of the period, the difference between the countries groups was only 1 percentage point!

In the opposite, the role of SSC in the total taxes is considerably higher in the NM10 countries - more than 10 percentage points during the period.

In the NM10 states, the social programs provision grounds more on individual contributions rather than a general tax base. Therefore, revenue flows into healthcare or pension systems in the NM10 countries depend largely on employees-employers contributions through the tax system. As a result, in those countries the SSC are rather important part of public budgets to secure social system stability.

In the EU15 Plus countries the social security system financing is not so tightly linked with the certain earmarked taxes. The social security systems there are funded more largely on the total tax basis. The extreme case among the EU countries is Denmark, there SSC cover only 2% of all taxes. At the same time, the country's total tax burden is the highest among the EU member states (around 50% as compared with the GDP).

3. TAXES BY THE TAXATION BASE

In following are considered structural changes in the type of taxation base or sometimes called, tax structure by economic functions. Such a structure combines different types of taxes under the particular "umbrella", which allows bring out allocation of tax burden across different type of activities.

There are four main bases for taxes – consumption; labor; capital and environment. In this text, the environmental taxes are skipped as they are rather small part of all taxes.

Taxes on labor comprise all taxes, which are directly linked to wages (*e.g.* income taxes), but also including compulsory social contributions and payroll taxes. Labor taxes are the biggest item of all taxes; they are covering more than half of all EU countries total taxes. Therefore, it is a rather natural concern over the high level of labor taxation burden across the European countries.

During the period, the labor taxes have decreased as compared with GDP, but labor taxation has increased as share of total taxation (Table 6). At the end of the period, the labor taxes covered about one fifth as compared with GDP and even more, they covered 51% in total taxation. Author agrees with the EU Commission understanding that European taxation competitiveness depends first of all from decreasing the tax burden on labor!

Table 6

Taxes on labor, %

		2000-2001	2010-2011	Change over the period, % points
EU27 (1)	As % of GDP	20.2	19.6	-0.5
	In total taxes, %	50.5	51.2	0.8
EU 15 Plus (2)	As % of GDP	18.6	18.5	0.0
	In total taxes, %	46.2	47.6	1.4
EU 10 NM (3)	As % of GDP	16.1	14.6	-1.5
	In total taxes, %	49.4	46.2	-3.2
Difference (2)-(3)	As % of GDP	2.4	3.9	1.5
	In total taxes, %	-3.2	1.3	4.6
Max	As % of GDP	30.8	25.9	-4.9
	In total taxes, %	61.0	56.8	-4.2
Min	As % of GDP	9.8	9.0	-0.8
	In total taxes, %	32.3	32.2	0.0

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/data/database; section Main national accounts tax aggregates and author's calculations

As the labor use related income taxes in Europe have decreased (Table 4), the proportion of labor taxes has also decreased as compared with GDP level (Table 6). However, the SSC importance in total taxation has increased. The difference between highest and lowest labor tax burden (max-min amplitude) diminished during the period.

The labor taxation dynamics during the period has been rather different across the EU countries groups. The EU15 countries have maintained high level of labor taxation as compared with GDP, at the same time labor related taxes in the total taxation have gone up. Differently, the NM10 countries have reduced labor taxes as compared with GDP. Even more have declined labor taxes share in total taxation. Labor taxes share was downsized mainly through the personal income tax decreases. As an outcome, the labor taxation share in total taxation reached rather similar level in both EU countries groups.

In the next are considered trends on consumption taxation. Taxes on consumption are defined as taxes levied on transactions between final consumers and producers and include mainly VAT and excise duties. Very broadly,

consumption taxes are rather similar to indirect taxation, but include lesser number of taxes.

As table 7 presents, consumption taxation has slightly decreased across the EU countries as *per cent* of GDP, but somewhat increased consumption taxes in total taxes.

Table 7

Taxes on consumption, %

		2000-2001	2010-2011	Change over the period, % points
EU27 (1)	As % of GDP	11.3	11.0	-0.3
	In total taxes, %	28.2	28.7	0.5
EU 15 Plus (2)	As % of GDP	11.9	11.7	-0.3
	In total taxes, %	31.1	31.0	-0.1
EU 10 NM (3)	As % of GDP	12.0	12.4	0.4
	In total taxes, %	36.9	40.1	3.2
Difference (2)-(3)	As % of GDP	-0.1	-0.7	-0.7
	In total taxes, %	-5.7	-9.0	-3.3
Max	As % of GDP	15.7	15.0	-0.7
	In total taxes, %	42.3	53.0	10.7
Min	As % of GDP	9.8	8.7	-1.1
	In total taxes, %	24.6	24.2	-0.4

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/data/database ; section *Main national accounts tax aggregates* and author's calculations

Their dynamic pattern in different EU countries groups copies the dynamics of indifferent tax dynamics. During the period, the consumption taxes in the EU remained about the same level – both as compared with GDP level and their importance in total taxation. At the same time their min-max amplitude as compared with the GDP level or consumption taxes in total taxation has widened.

Use of consumption taxes in total taxation in NM10 countries at the end of the period was 9 percentage points higher than in the EU15 Plus countries. The NM10 countries have more visibly increased their dependency from the consumption taxes during the period. The recent global economic crisis hit many

East and Central European countries more severely than EU15 Plus member countries. To cope with deterioration of public finances, the NM10 countries increased mostly taxes on consumption. Consumption taxation share of in GDP and in total taxation remained almost unchanged in the old EU member states.

The last considered taxes are capital related taxes (Table 8). That taxation base is significantly narrower if compare with labor or consumption taxation. However, the capital taxes are the most visible and sensitive ones from the point of view of countries competitiveness and investment attractiveness.

Table 8

Taxes on capital, %

		2000- 2001	2010- 2011	Change over the period, % points
EU27 (1)	As % of GDP	8.7	7.8	-0.9
	In total taxes, %	21.6	20.4	-1.2
EU 15 Plus (2)	As % of GDP	8.9	8.2	-0.7
	In total taxes, %	23.2	21.7	-1.4
EU 10 NM (3)	As % of GDP	4.5	4.3	-0.2
	In total taxes, %	13.9	13.8	-0.1
Difference (2)-(3)	As % of GDP	4.3	3.9	-0.4
	In total taxes, %	9.2	7.9	-1.3
Max	As % of GDP	13.4	13.5	0.1
	In total taxes, %	34.0	31.5	-2.5
Min	As % of GDP	1.7	2.2	0.5
	In total taxes, %	5.6	6.3	0.7

Source:

http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistic/s/data/database ; section Main national accounts tax aggregates and author's calculations

In average, the capital taxes cover around 8% of GDP and one fifth of all taxes in the EU. During the decade the capital taxes have declined in the all sets of countries. Also is a narrower capital taxes max-min amplitude.

At the same time, there are significant differences among the EU countries groups in use of capital taxes. The EU 15 Plus countries collect about twice more of capital taxes as NM10 countries do in GDP comparison (8.2% and 4.3% respectively). Also, in the EU15 Plus countries about 22% of all taxes comes from the capital taxation. The same ratio is only about 14% in the new EU

member states. Capital taxation remained mainly flat level in the new EU countries and declined rather slightly. Such a situation once again demonstrates different approach in allocation taxation burden across tax bases. Then the EU15 Plus countries rely more on direct income taxation, the new EU members are burdening more consumption activities.

4. CONCLUSIONS

The study is motivated from the EU Commissions initiatives and proposals to shift tax burden away from labor taxation and increase more consumption and property taxes. The Commission is concerned about harmful impact of high burden on taxes to the EU growth and competitiveness prospective. Therefore the paper focuses on European Union countries' tax structure dynamics during the last decade.

In the study, the countries are distributed different groups – as new EU member states from East Central Europe (NM10) and group of countries “old” EU countries (EU15Plus).

In the global context, the EU is still a high tax level area (about 40% as GDP) and during the decade, the average total taxation burden has been only slightly declined. However, the new EU member countries have lowered their tax burden more than “old” Europe ones. As the EU average, the main tax types - direct, indirect and social security contributions - each cover equally about 13% of GDP level and one third of total taxation. In general, across the EU the direct taxation has declined as percentage of GDP and as in total taxation. Indirect taxation has remained the same level in GDP comparison, but increased in total taxation. Social security contributions have been relatively stable during the period.

That concerns changes in taxation structure, then actual changes take place only in the region of the NM10 countries. In the group of EU15 Plus countries tax structure changes have been quite moderate and tax structure remained rather stagnant.

The taxes on income have decreased across the Europe during the period. However, the income is much heavily taxed (as percentage of GDP and in total taxation) in EU15 countries than in NM10. The difference has also increased during the period.

Indirect taxes remained as the EU average about the same level. Such taxes have significantly increased in the NM10 budgets but remained about the same in the old EU countries. The lower income countries use more indirect taxes, otherwise, the higher income countries rely more on direct taxation.

Social security contributions across the countries groups cover relatively similar proportion in GDP comparison. However, the SSC is representing much higher share in the NM10 countries budgets than EU15 Plus countries.

All the EU countries groups are burdening labor with taxes rather similarly and those taxes cover about half of all taxes. At the same time, the consumption is heavily burdened in the NM10 countries. In opposite, capital income is much heavily burdened in the EU 15 Plus countries.

To conclude, EU15 Plus countries have been relatively stable by the taxation structure; the NM10 countries have visibly moved towards higher importance of consumption and smaller use of direct taxation.

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BANKING CRISIS: CAUSES, CHARACTERISTICS AND SOLUTIONS

JEL classification: G01

Abstract

The banking crisis revealed severe shortcomings in the area of monetary policy, deregulation, financial innovation, and government policies. Given the negative impact it has had on the global economy, it requires an analysis of the factors that contributed to its onset, its particularities and the solutions implemented. The aim of the paper is to draw a clear picture of the phenomenon and to identify possible solutions. By analyzing the causes and evolution of the recent banking crisis, the authors suggest strategies aimed at avoiding similar future banking crises.

Keywords: moral hazard, deregulation, financial innovation

1. INTRODUCTION

Many analysts believe the financial crisis is a new phenomenon, unprecedented in the world economy. From the moment the real estate credit crunch has turned into a world financial crisis, central banks and governments of developed countries strived to release crediting in order to support the economy, which later gradually came into recession.

Doing a review on the world economy, we identified other crises unraveled in countries like Brazil or Mexico, but these particular crises were due to inappropriate government policies based on low taxation and a fixed exchange currency rate.

“Allah’s punishment”, “Pearl Harbor’s economy”, “the explosion of the financial bubble”, “the new spill”, “vortex” are some of the phrases used by specialists like Warren Buffett or Alan Greenspan to define the global financial crisis. This unprecedented event has left its mark on all countries worldwide. Given the fact that it had a negative impact, the situation requires an analysis of the factors which led to it. Therefore, the aim of the paper is to draw a clearer picture of the phenomenon and to identify possible solutions.

Since 2007, the artificial growth of the US real estate market has generated increasingly adverse consequences. This process was supported by the development of the subprime mortgage market and financial derivatives. Once collapsed, the subprime market has affected not only the banking system, but also the economy as a whole.

Irrational factors have fuelled the development of real estate sector, among which the most important were: low benchmark interest rate dating back to 2001; tax relief granted by the U.S. government to the banking system and the capital market regarding costs of mortgage deregulation; lack of correlation between wages and productivity; financial innovation and investors’ greed.

The banking crisis is a subcategory of the financial crisis consisting in moments of panic, temporary confusion regarding incidents within the financial system. The crisis began in the U.S., but because of deregulation and financial liberalization, this phenomenon has spread to Europe and other continents, having a negative impact on the economy and forcing banks to deal with a difficult situation. After receiving bailouts from the government, some banks were nationalized, others were saved, but in many cases they went bankrupt.

After analyzing the causes and evolution of the recent banking crisis, the authors suggest some changes aimed at avoiding future similar banking crises. Thus, the array of recommendations contains, among others, the following: rethinking the remuneration system for employees within credit institutions; a proper surveillance of rating agencies, increased attention and adequate analyses when granting credits.

2. CAUSES OF THE BANKING CRISIS

US government policies were based on the premise that every American must own a property, but also on facilities offered by the IRS in that taxpayers could deduct the interest from their taxable income. This implied that all homeowners incurred a financial risk. The risk was shared by more than 22 million Americans, who in the period 2005-2007 bought new or old homes and lost a significant part of their initial investment, after “housing bubble” burst. Currently, analysts estimate that more than 10 million American families own homes with mortgages exceeding the homes market value.

Other causes of the current crisis could be identified in: the lack of regulations for the US banking system; Fed’s lowering the benchmark interest after September, 11, 2001 terrorist attack, in order to generate liquidity and protect numerous financial institutions against default.

Most financial professionals singled out the financial derivatives market as a major source of the problem. With its spectacular growth from 106,000 billion dollars in 2002 to over 531,000 billion dollars in 2008, this market did nothing but increase risks rather than limit them amid doubts about how companies would exploit them. Derivatives were created as a protection against investment losses. These contracts allowed financial service firms and companies with adequate liquidity to take more complex risks which normally would have been avoided. Alan Greenspan, who spoke several times against imposing restrictions on the financial derivatives market, argued in 2003 in front of the US Congress that “derivatives were and are an extraordinarily useful vehicle to transfer risk from those who shouldn’t be taking it to those who are willing and are capable of doing so”.

The collapse of the US real estate credit market caused massive losses to all investors who bought financial assets backed by mortgages. These losses have affected credit institutions amid their attempt of covering debts by increasing capital through selling shares, which stirred a negative reaction of the capital market, a sharp drop in the banking shares, and a sharp reduction in the equity of credit institutions. The crisis began only in the US as a subprime lending problem, but soon it has spread throughout the world.

The first signs announcing the deepening of the crisis have been drawn by the collapse of investment bank Bear Stearns in the spring of 2008. The bank was ultimately saved from bankruptcy by Fed’s intervention which backed the 30 billion purchase of investment bank JPMorgan. Then the nationalization of British bank Northern Rock and Fed’s intervention to save its two giants, Freddie Mac and Fannie Mae, followed.

Several papers elaborate on the recent banking crisis and especially its causes, putting under the spotlight the fact that the United States and other developed economies have experienced a continuous upward trend of real estate prices (Laeven & Valencia, 2010, p. 4). Chart 1 shows a comparison between the

evolution of the consumer prices index (CPI) in the housing sector and the evolution of the same index, but in other industries (food, goods, energy, and transportation). As reflected in the analyzed data, real estate prices have increased much more than prices in other industries. In 2002, for example, CPI exceeded by 30.6% the goods price index, by 4.10% the food price index, by 58.6% the energy price index and by 27.4% the transportation price index.

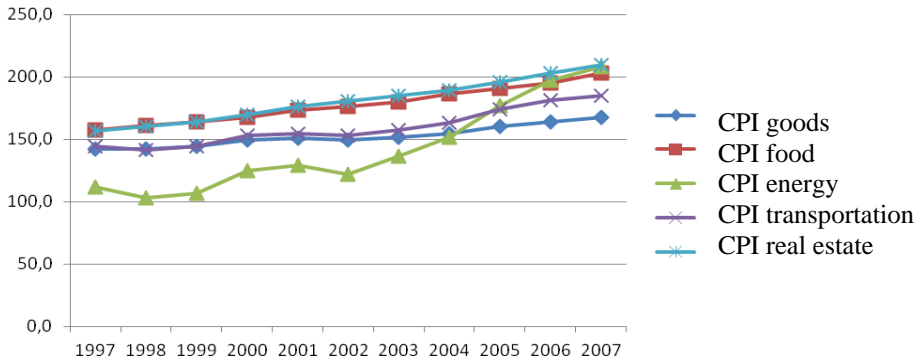


Figure 1: Evolution of the price indices for various industries (value 100 corresponds to the period 1982-1984)

Source: CENSUS database

On one hand, the expansion of the real estate market was supported by financial innovation, which allowed the creation of complex derivative instruments through which banks exploited the regulation gaps. As shown in figure 2, the derivatives market value greatly increased after year 2000. Thus, from about 150 trillion dollars in 2000, it rose to 400 trillion dollars in 2006, summing up to a percentage increase of 167%.

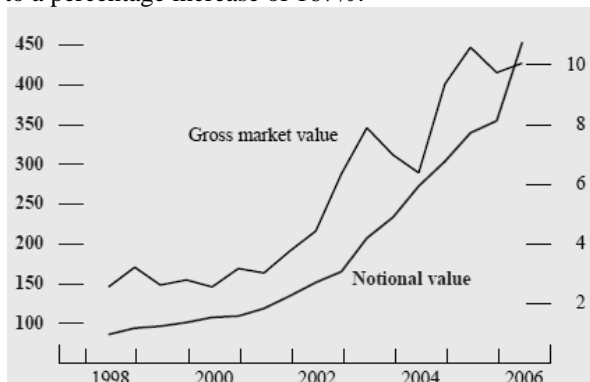


Figure 2. The market value and notional value of the global derivatives market (trillions of US dollars)

Source: *US Cross-Border Derivatives Data: A User's Guide*, May 2007, p.1, available on www.federalreserve.com

Credit institutions have incurred high risks, capital adequacy avoiding operations by recording off-balance sheet instruments. This way, the off-balance sheet set of commitments increased and distorted the structure of the assets within the balance sheet. This process has been made possible by giving packaged banking mortgages to investment entities called special purpose vehicles (SPV). Hence, SPVs took over a series of activities with high risk and low liquidity (derivatives that had mortgages underlying assets) and placed them in the financial market. This technique of selling loans to investors has transformed the traditional role of financial intermediaries on the mortgage market (Keys, Mukherjee, Seru & Vig, 2010, p.308). Thus, in the years preceding the crisis, there was a rapid increase in financial derivative transactions and bank indebtedness degree.

Some market players which have negatively affected the banking system include US government-sponsored enterprises, Fannie Mae and Freddie Mac, whose role was to buy and securitize mortgages. Through this activity, they generated a systemic risk in the market, contributing to the deepening of the crisis (Acharya & Richardson, 2009, p.13). The main problem was the high percentage of mortgage backed securities (MBS) they had in their portfolios. Everyone was aware that the decline of these companies would have led to massive sales of securities, thus affecting the whole financial system.

Moreover, the sharp rise in house prices was due to the policies pursued by governments trying to stimulate the purchase of real estate. One of the measures implemented in the US was to allow taxpayers to deduct from their taxable income the interest on the mortgage and property taxes. As can be easily concluded, the government itself contributed indirectly to the crisis. Another element worth mentioning is the benevolent attitude of Alan Greenspan, then chairman of the Fed. He was among the specialists supporting the efficiency of substandard lending practices and refusing supervision.

Almost by night, mortgage became extremely affordable and accessible for the population, due to reduced requirements of banks, i.e. easing customer creditworthiness standards. In addition, the range of assets received as collateral significantly expanded. Thus, it led applicants to falsely report income, without any written confirmation of salary (Roubini & Mihm, 2010, p.119). The borrowers' situation described above was known under the acronym NINJA (no income, no jobs, no assets). The abovementioned measures have generated a significant increase in the number of mortgage indebtedness and default.

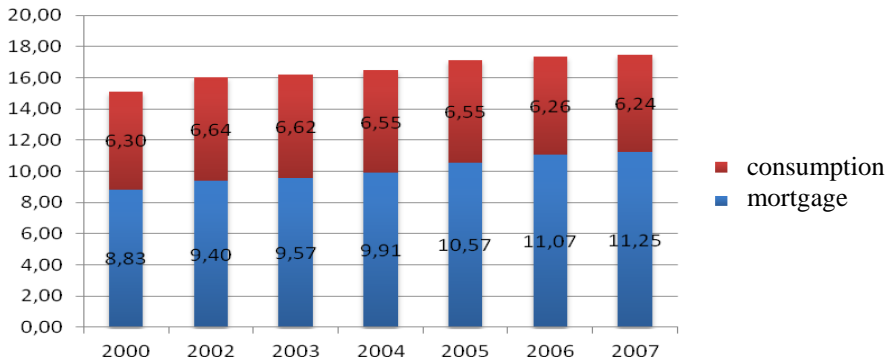


Figure 3. Share of liabilities related to mortgage and consumer loans in personal income

Source: CENSUS database

Figure 3 shows the evolution of public debt, consumer credit and mortgage loans. It can be seen that the share of payment obligations arising from mortgage loans (average 10%) is higher than that of consumer credit obligations (average 6.5%). In addition, by analyzing the time evolution of the related indebtedness, one can see that consumption followed a downward trend (from 6.3% in 2000 to 6.24% in 2007). Instead, the mortgage indebtedness increased from one year to another (from 8.83% in 2000 to 11.25% in 2007).

In the period 2002-2007, household debt grew much more than that of corporations. All these factors led to a financial excess, i.e. the sharp and rapid development of the financial market which reached a level that exceeded economic needs. On the credit market, public debt was on average 27% in 1998-2007, while corporate debt accounted for only 14-15%.

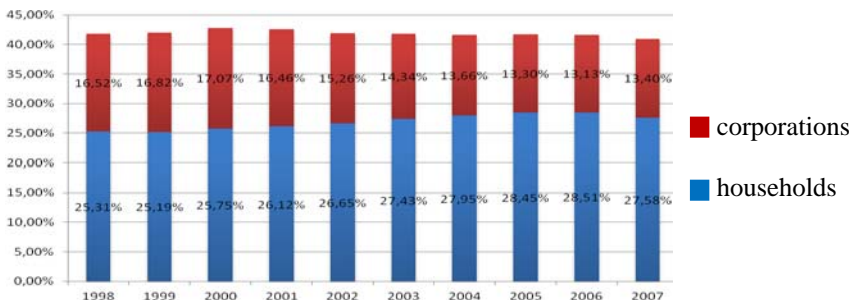


Figure 4: Share of total population and total corporate debt in the credit market

Source: CENSUS database

Institutional structure also encouraged the crisis. Due to the role of the central bank which was seen as the last resort lender, credit institutions had an increased security that it would help them in the event of liquidity problems, i.e. the onset of a crisis. Financial institutions were not cautious enough to secure large volumes of liquid assets as buffer in case of massive withdrawals (Roubini & Mihm, 2010, p.129).

Furthermore, the low interest rate in the years preceding the crisis must also be mentioned. In the US, interest rate was significantly mitigated in the period 2001-2004. This has led investors to seek new investment tools. Thus, largely due to the increasing demand, the financial system has developed new structures and new tools that seemed to offer higher risk-return reports, but in fact were more risky than it seemed (IMF, 2009, p.2). Excess liquidity in the market prompted investors to turn to the financial market, namely for innovative financial instruments. Figure 5 renders the time evolution of the Fed benchmark rate. If in 2000 it scored 5.73%, in 2002 it fell up to 1.17%. As a result of the inflationary pressures, from 2003 the rate grew constantly, reaching 6.41% in 2007. Mortgage rate was also on a similar trend. From 7.52% in 2000, it fell to 5.77% in 2004, followed by an upward trend, reaching 6.41% in 2007.

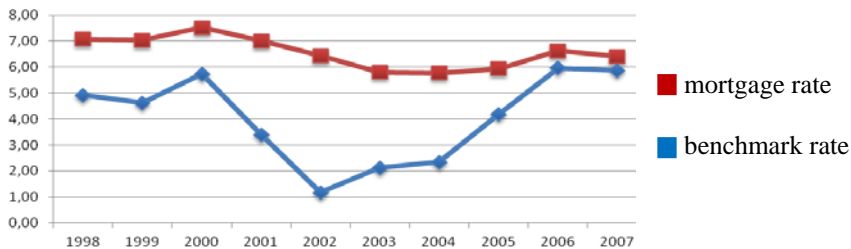


Figure 5. Evolution of the Fed benchmark rate and the mortgage rate for new homes in the US

Source: CENSUS database

The main consequence of the actions taken by the central bank translated into an increase in inflationary pressures. Hence, in the period 2005-2006, the interest rate for borrowers increased with disastrous consequences. Higher interest rates led to serious difficulties in mortgages repayment.

Another shortcoming in the legislation was the method for determining the provision for loan losses. It was based on past information involving a tardy recognition of excessive risk. This way, unsound lending has been supported for a long period. The amount of provisions decreased especially in the period 2002-2006. Thus, from \$51.5 billion in 2002 fell to \$29.6 billion in 2006, with a drop of 42.55%, as can be seen in figure 6.

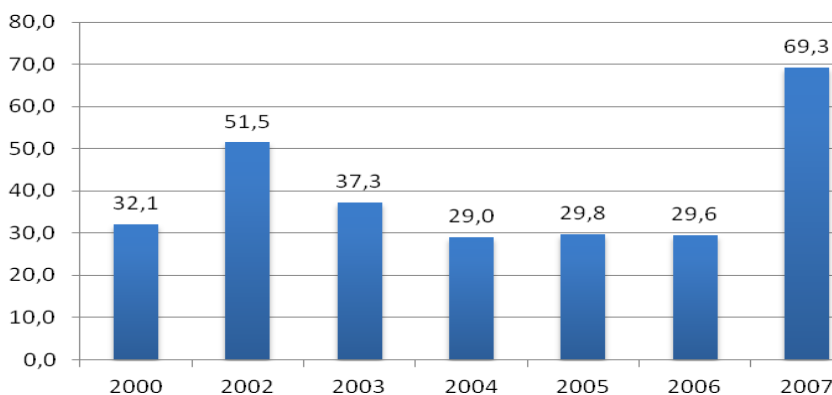


Figure 6. Provisions for losses on loans granted by financial institutions in the US (billion dollars)

Source: CENSUS database

Rating agencies had an important role in the development of the crisis, especially due to their link with banks and mortgage packages. The agencies were giving ratings that were inconsistent with the reality, reflecting too much optimism. Perhaps the most disturbing aspect of the losses from CDOs is that most financial assets, that have been blamed and sanctioned afterwards, initially received AAA ratings from one or more national credit rating agencies, which marked them mainly as a safe investment (Barnett-Hart, 2009, p.1).

Two reasons for this assessment distortion reside in the method of paying rating agencies and the complexity of financial instruments under assessment. Regarding remuneration, the agencies were paid by the entities under their evaluation, thus being motivated to issue positive scores in order to receive commissions. The conflict of interests was due to the double role held by rating agencies: evaluating banks and advisors regarding the structuring of products to maximize rating; receiving payment by those same clients. Regarding derivatives complexity, this was due to multiple securitizations of financial instruments. For example, through such techniques, the instrument called collateral debt obligation (CDO) was created. Some scholars have even argued that leaning on the rating agencies was like putting the fox to guard the chicken (Roubini & Mihm, 2010, p.120).

Labor productivity in relation to the earnings/wages has also eased the deepening of the crisis. Figure 7 shows the evolution of the three indicators relevant to the recent crisis. Unit labor costs are calculated as the ratio between the total labor costs and gross domestic product. The second indicator refers to the employee compensation divided by the number of employees, and the third

indicator is productivity. As one can observe, in most countries, the productivity growth rate was far outweighed by the labor cost, i.e., wages.

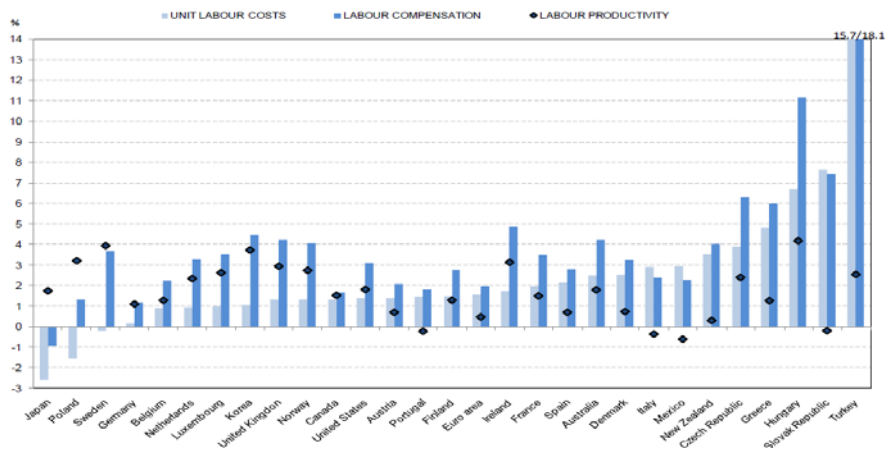


Figure 7. Evolution of labor costs, compensation for labor and labor productivity in various countries worldwide - Dynamic Indicators with a mobile basis, 2001-2006

Source: *OECD Compendium of Productivity Indicators 2008*, p. 58, available on www.oecd.org

Finally, the factor perceived as the basis of all developments mentioned was the excessive greed of those involved in banking processes. Their main objective was to maximize profit on a short term and with minimal effort, i.e. limiting capital invested. As mentioned by some authors, the situation was “staged” about greedy bankers who cashed in hundreds of millions, while taxpayers saved institutions from bankruptcy (Dowd, 2009, p.141).

3. CRISIS CHARACTERISTICS

The current financial crisis was caused by excessive risk taken by many companies in the financial sector. Much of this risk had led employees to artificially increase their own wealth and not focus on company objectives.

As it is stated, “the financial system is the heart of a modern market economy” (Kapoor, 2012, p.6). When the system functions properly, sufficient resources are ensured so as to achieve a maximization of productivity. When ambiguities occur, the entire economic system is affected.

Spain, Greece and Kazakhstan were on the edge of a systemic crisis, because they met only two of the six criteria of policy intervention. The recent crisis began in the US and Britain in 2007, spreading rapidly to other countries in 2008. In all those cases, banking systems have shown some signs of difficulty, followed by government interventions (i.e., bailouts) from the first year of the crisis. The systemic crisis emerged in 2009 in Denmark, Germany, Greece, Ireland, Mongolia, Ukraine, then followed Kazakhstan in 2010 and Nigeria and Spain in 2011.

Table 1

Countries in crisis and those who were almost on the edge of systemic risk

Country	Start of crisis	Date when systemic	Extensive liquidity support	Significant guarantees on liabilities	Significant restructuring costs	Significant asset purchases	Significant nationalizations
<i>Systemic Cases</i>							
Austria	2008	2008	✓	✓	✓		✓
Belgium	2008	2008	✓	✓	✓		✓
Denmark	2008	2009	✓	✓			✓
Germany	2008	2009	✓	✓			✓
Greece	2008	2009	✓	✓	✓		
Iceland	2008	2008	✓	✓	✓		✓
Ireland	2008	2009	✓	✓	✓	✓	✓
Kazakhstan	2008	2010	✓		✓		✓
Latvia	2008	2008	✓	✓			✓
Luxembourg	2008	2008	✓	✓	✓		✓
Mongolia	2008	2009	✓	✓	✓		✓
Netherlands	2008	2008	✓	✓	✓		✓
Nigeria	2009	2011	✓	✓	✓	✓	✓
Spain	2008	2011	✓	✓	✓		
Ukraine	2008	2009	✓	✓	✓		✓
United Kingdom	2007	2008	✓	✓	✓	✓	✓
United States	2007	2008	✓	✓	✓	✓	✓
France	2008		✓	✓			
Hungary	2008		✓	✓			
Italy	2008		✓	✓			
Portugal	2008		✓	✓			
Russia	2008		✓	✓			
Slovenia	2008		✓	✓			
Sweden	2008		✓	✓			
Switzerland	2008		✓			✓	

Source: Laeven & Valencia, 2012, p.6

Theoretically speaking, the recent evolution of the economic and financial situation in the US contradicts the Keynesian theory: fiscal and monetary stimuli resulted in a modest economic growth and a vehement rejection of economic policies by public opinion. With a budget deficit of 10% of GDP, the Obama administration has opted to maintain the exemptions previously adopted

by the Bush administration, adding another extra fee reduction on salaries of civil servants. The period 2000-2007 is characterized by a global low interest rate, resulting from the existence of a high level of liquidity in countries like China, who has foreign reserves and surpluses deposited in current accounts. Thus, in an artificial way, exchange rates were maintained at a low level and savings balance was positive. The post 2001 pressure made interest rates fell. That situation has contributed to an expansion of credit demand and rising of asset prices, which preceded the crisis, as happened in the US, where financial products with an increased risk and subprime loans were intensively promoted.

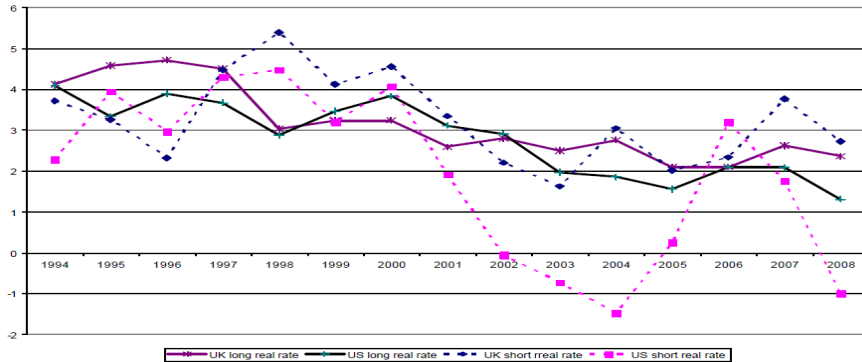


Figure 8. Real interest rates in the US (1994-2008)

Source: Berrell & Davis, 2008, p.3

In this time of recession the state intervened, trying to save many of the financial institutions damaged by the crisis. After helping JP Morgan Chase bank to acquire Bear Stearns, the US government bailed Fannie Mae and Freddie Mac. The fall of Lehman Brothers on the 15th of September 2008 represented the outburst of the crisis. Soon, AIG, a large insurance company was saved by the US Treasury. On the 19th of September 2008, the US Treasury made a temporary guarantee program consisting of \$50 billion for the mutual funds on the market. On September, 26, FDIC closed its activities at Washington Mutual. On September, 29, 2008, the UK government nationalized Bradford and Bingley, institutions which handled mortgages. On, September, 30, 2008, Fortis received support from the Government of Belgium, Netherlands and Luxembourg. On October, 5, German government extended guarantees for the Hypo Real Estate bank.

Kapoor (2012) singles out greedy bankers and regulators involved as the masterminds of the crisis. The “credit boom” and lending policies have generated a progressive deterioration of the credit market between 2001 and 2007. The liquidity crisis has exploded on the interbank market in August 2007.

The problems arising from the Lehman Brothers case and other US banks were closely related to the subprime crisis and the liquidity crisis. Two lessons must be learned from the Lehman Brothers case: 1) the chaotic development of the financial economy has to be stopped; 2) even the most solid entities have a finite activity.

By granting bailouts to credit institutions, the US Treasury became a shareholder in Citigroup, Wells Fargo, JPMorgan Chase, Bank of America/Merril Lynch and several others. The measure adopted by the US Treasury of purchasing mortgage-backed securities issued by Freddie Mac and Fannie Mae in September 2008, aimed at defusing the crisis, were not able to eliminate all of the “symptoms”.

In the same period, the giant AIG sought and received a loan from the Fed of \$85 billion. Currently, AIG faces another round of liquidity problems, thus having to request a new Fed emergency aid of \$90 billion.

Fed, European Central Bank and Bank of England announced a dramatic relax of the lending terms for their main contractors, namely a majority of commercial banks and investment banks. These institutions will be able to guarantee loans for a wide variety of financial assets, loans or debts arising from speculative investments.

Last but not least, recent banking events in Cyprus represent another effect of the global crisis which also affected the Euro Zone.

4. PROPOSED SOLUTIONS

Concerning the factors which triggered the crisis and its evolution, in the following we recommend some solutions which, if applied, might avoid the repetition of such phenomenon.

A first aspect that comes into our attention is the policy regarding the compensation of employees. If their salary package reflects the positive economic results of the company, remuneration policy should also take into account the company economic losses. Therefore, in our view, remuneration should be redesigned in order to take into account the results of the entity, either positive or negative. By this, companies would raise awareness among employees, they would consider not only short-term profits, but also the risks associated to the financial operations. In addition, another element worth taking into account is an assessment of employees based on their work productivity. Thus, financial compensation would be made based on performance from several years, and the positive results obtained in one year would be correlated with negative results in another year. Consequently, by assessing the average performance, companies would provide employees with a fairer remuneration.

Some specialists (Roubini & Mihm, 2010) even suggest that the remuneration received by employees of financial institutions should reside in shares within the company. In their view, companies should impose a timeframe in which employees would have to keep the shares (i.e., they would not be able to sell shares for a decade or until retirement). This way, employees should be more interested in the evolution of the company and the impact of its operations (performed by them) on financial results.

Another element which needs to be modified is the remuneration system of rating agencies. The conflict of interests in which the rating agencies were involved contributed to the deepening of the current crisis: they were both consultants and assessors for the banks, so they got to evaluate their own proposals. Moreover, the higher the rating, the higher the fees paid by the banks to these agencies. The main problem was that credit institutions could choose which rating agency to evaluate them. As companies were interested in receiving a higher rating, this was the main criterion in choosing a rating agency. In turn, agencies were interested in granting good ratings in order to receive commission from their clients.

In our view, a rotating method for assessing institutions could be established, so that each evaluation can be conducted by another agency. A second option would be that all agencies should assess all credit entities and the third proposal would involve creating a global rating agency, like an international public institution. These institutions would operate on funds collected from the entities that would be evaluated according to social, economic and financial criteria. By using this method, neutrality and objectivity in the assessments would increase. A fourth option would be to prohibit rating agencies to give consultancy services to assessed entities, thus eliminating any possible conflict of interests.

Roubini & Mihm (2010) also proposed that the US Security and Exchange Commission (SEC) should reduce entry barriers and increase competition on the market.

Other authors have proposed a shift from the institutional perspective. To solve the poor discipline of large banks, it is recommended to mitigate their size, in order to get back to the status “small enough to fall” (Mehran, Morrison & Shapiro, 2011, p.22).

In our opinion, when referring to the EU, there should be binding rules to ease cooperation between member states, measures which have to be clear and transparent. On the long run, a single supranational authority such as the US Federal Deposit Insurance Corporation (FDIC) could be established. To our knowledge, there are some legislative proposals to create an EU network of national deposit guarantees and to have the opportunity of borrowing from other member states. The project is quite ambitious, reflecting the cross-border nature of member state banks. Another proposal would be to create a single set of rules by which to manage a crisis, solve and avoid banking insolvency.

5. CONCLUSIONS

The banking crisis unraveled due to several financial, economic and psychological factors. Even if the US was the epicenter of the crisis, its effects have spread rapidly throughout the world by contagion. Moreover, the conditions that led to the crisis have been identified in other countries.

Among the most notable causes of the crisis were: the downward trend of the benchmark interest rate; government support for the development of the US housing market; financial innovation, which allowed credit institutions to incur significant risk; unsupervised activity of credit institutions, due to legislative gaps; the conflict of interest in which rating agencies were involved, allowing them to overestimate the efficiency of derivatives and grant credit institutions unreal scores.

The current crisis led to a significant decrease in the confidence level of consumers, investors and businessmen, which in turn affected stability and economic strength. This created a vicious circle of economic growth based on excessive consumption sustained by debts. Deregulation and financial liberalization did not generate an efficient allocation of resources.

Recent measures taken by governments numbered assets acquisition, banks recapitalization, injecting liquidity into the banking system. In spite of these measures, many banks have not escaped the subprime lending problem. At least in Europe, counterbalancing the effects of the financial crisis appears to be an extremely difficult mission. France, for example, created a sovereign fund to assist strategic companies.

The constant deepening of the financial crisis has imposed consensus and (game) coordination among governments and supervisory authorities, in order to finally reach the following objectives: 1) more explicit guarantees to maintain liquidity in the banking system; 2) supporting the increase of banks capitalization (namely, direct participation of the state, with the possibility that, in some cases, the state become main shareholder); 3) alternative solutions for eliminating non-performing assets from banks balance sheets; 4) decreasing the benchmark interest rate; 5) more pragmatic operational regulations and supervision of the banking system.

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PUBLIC DEBT CRISIS: ROOTS, EVOLUTION & CONSEQUENCES

JEL classification: G01

Abstract

Public debt was considered a reason of concern for many states. The problem became acute in the early '80s, when external debts ceased to be paid. Between 2001 and 2011, several developed countries were directly involved in external loans, because these investments could cover the bill for oil imports. The sovereign debt crisis is present not only in the European States, but in most countries experiencing high levels of indebtedness. Based on statistical data, the present paper highlights the roots, evolution and consequences of the public debt crisis in the EU, USA and Japan.

Keywords: public debt, GDP, budget deficit

1. HISTORY AND EVOLUTION OF PUBLIC DEBT

Public debt was considered a reason of concern for many states. This problem became acute in the early '80s, when the debt crisis spread in several countries, especially in Central and South America, which stopped paying external debts.

After a thorough examination of the events that took place worldwide since the 1960s and especially after the first oil shock, developed countries had good reasons in lending large sums to countries requesting loans, notably those from Latin America. In other words, developed countries were directly interested in giving external loans because, through this measure, they could cover the bill for oil imports. Hence, extensive work has been initiated with regards to the recycling of Eurodollars and petrodollars.

As Perkins (2006) boldly states, one notable example comes from the US: its "economic hit men" had the mission of convincing countries (important to the US from a strategic point of view) to accept enormous loans, usable for developing infrastructure and ensuring profitability for the US corporations. Ending up with staggering debts, such countries were controlled by the US and the World Bank.

Public debt managers in countries with high debt levels should be aware of all the aspects with which deeply indebted countries had to struggle, in order not to repeat the same mistakes. Errors arising from adopting inappropriate debt policies – still faced by some countries – should be taken as harsh lessons by countries that have begun acquiring loans at a very brisk pace.

Several times, a crisis which apparently did not seem to affect the global economy impacted not only the underdeveloped countries or developing economies, but also the global market. The stock market crash experience of 1929 is still vivid in the minds of many, and the large-scale effects it had generated are not that remote. Moreover, the global crisis of 1929-1933 stands behind the creation of the International Monetary Fund. Structural adjustment policies began to be implemented after the debt crisis, as a response of governments within industrialized countries and international financial institutions losing control over poor countries.

In the interval 1940-1960, with the development of Asian and African states after gaining independence, the expansion of the East European block, the triumph of the Chinese revolution, the Cuban and Algerian movements, emerging organizations generated international chaos, due to the dominance threat issued by major capitalist powers.

The sovereign debt crisis was fueled both by the decrease in prices of products exported from least developed countries (LDCs) and the increase of the interest rate. As Toussaint (2000) pointed out, indebted countries announced their difficulties in repaying private debt, banks refused to guarantee new loans and

demanded the old debt to be paid. The IMF and industrialized countries granted new loans, with the aim of allowing private banks to recover money and limit bankruptcy. Moreover, the IMF and the World Bank supported structural adjustment plans imposed on indebted countries.

Great world debtors world during the Asian crisis were countries from Latin America and Africa, but also Central and Eastern Europe. The poorest and most indebted received the best treatment with respect to the repayment of foreign debt. This was known as the “Toronto improved conditions” and offered possibilities of reducing debt. Low-income countries applied “Houston conditions” and other debtor countries appealed to the “Paris Club Standard Conditions”. The latter countries have signed agreements with creditor banks, which allowed them to reduce external debt, reschedule the remaining debt, and in some cases, obtaining new loans. Countries signing such agreements were Costa Rica, Venezuela, Uruguay, Nigeria, Argentina, Jordan, Brazil, Dominican Republic, Ecuador, Panama and Peru.

The financial crisis deepened the problems of several European countries due to the monetary and financial structure of the Euro zone and the final outcome was an extreme liquidity shortage for European banks. During 2007-2008, banks from the core Euro zone countries (Germany, France, The Netherlands, Belgium) continued to lend money to peripheral countries (Greece, Ireland, Italy, Portugal, Spain, or PIIGS), totaling 1.5 trillion Euros in 2008, which exceeded three times the capital of core banks. Then, governments started defaulting on their debts. After the recovery from the global financial crisis and recession, a second wave of crises threatened: the sovereign debt crisis.

As long as there are still countries barely over public debt (especially foreign debt), the public debt problem cannot be seen as solved. With respect to this, considerable efforts were supported by lending institutions, international financial institutions and borrowers to end this global problem. Erasing public debt is extremely important for poor countries, but also for countries in which governments rejected austerity budgets, thus respecting their citizens’ will. In their view, it is necessary to give priority to human needs by abandoning structural adjustment policies, by reconstructing multiple control mechanisms and by redistributing capital.

Regarding the evolution of public debt in the period 2002-2011, it can be noticed that Germany increased its indebtedness from 504 billion Euros (2007) to nearly 862 billion Euros. France and the UK recorded similar levels. Italy increased its indebtedness by more than 600 billion Euros, half of the sum during the crisis. Greece counts debts of 200 billion, Poland and Portugal are below 100 billion. There are cases of countries where public debt grew almost exclusively since the financial crisis, namely Belgium, Finland, Ireland and the Netherlands.

One of the rules to enter the Euro zone is ensuring that the total public debt should not exceed 60% of the GDP. The sovereign debt crisis SPREAD not only to the European States, but to most countries experiencing high levels of

indebtedness. The crisis is more serious within the EU because there isn't a unitary procedure to delay and mitigate such policy effects.

In counterpart, the US budget deficit was more than 10% of GDP in 2010, but it dropped almost to 6% of GDP in 2012. In Japan, the deficit rate amounted 9% of GDP in 2010 and slightly increased in the following year. The reason why US and Japan, though facing a sovereign debt crisis, do not have the same problems as EU members is that these two countries have monetary independence, i.e., when fiscal policy cannot be used, they turn to the monetary policy, printing money in order to refinance debt.

2. PUBLIC DEBT CRISIS IN ROMANIA

Developing countries, including Romania, have accumulated public debt (especially foreign debt) during the postwar period, especially in the '70s-'80s, and it has increased over time, especially since the 2007 global financial crisis started.

In the early '80s, Romania's access to foreign loans was considerably reduced. Consequently, the Minister of Finance (Gigea-Gorun, 2003, p.6) stated back then that, due to not paying loans at maturity, the country would be facing the situation of paying loans only partially. After his declaration, several deposits of the Romanian government from abroad bank accounts were fore closed by creditors, who could dispose of them as they wanted. Amid the onset of strong external debt crises worldwide, Romania ended up borrowing from foreign markets. By 1981, the volume of Romania's foreign debt reached \$13.9 million, without taking into account the \$6 million in interest paid. In these circumstances, the only solution for Romania was to start negotiating with the IMF, Paris and London Clubs about rescheduling its external debt.

If we refer to the volume of public debt registered by Romania in 2011, one can see it has constantly increased since the 1980s. During the whole period 2002-2011, the only year when Romania reached the minimum debt level of 3.5% of GDP was 2006. Romania's public debt has risen quite strongly since 2007. According to the Eurostat data, the debt had a level of €14763 million in 2007 and €44675 million in 2012. Like other countries across the globe, Romania has not escaped the current debt crisis.

3. PUBLIC DEBTS CRISIS IN EUROPE

Started in 2007, the financial crisis has spread within the European Union, strongly affecting economies of member states. After a timid recovery in 2010, the crisis deepened in 2011 and still continues nowadays. There are several reasons for the current situation: 1) states increased public debt, many of them in conditions of excessive liquidity and low interest rates; 2) increasing budget

deficits through various programs meant to stimulate the economy; 3) the recession forced governments to keep borrowing. According to Gust, Parpandel & Grigorescu (2012), the indebtedness level increased because markets were no longer willing to finance states. For the first time, due to indebtedness, many European governments were not able to intervene on the market by increasing budget deficits in order to combat the recession, as the public expected. Taking no action was out of the question, because it would have led to an uncontrolled decrease in the debt, generating huge job losses on the market. Blanchard and Giavazzi (2002) argued that budgetary deficits might not be a problem for the Euro zone, but they might be a problem for poorer countries which were registering an increasing consumption rate on the newly unified market.

Recently, after 10 years of experience, Obstfeld (2012) goes against the two abovementioned authors. In his opinion, countries with increasing budget deficits might also face liquidity problems, both external and internal (resulting from massive capital withdrawals by residents). Regarding the external factors generating a liquidity crisis, one of them might be the large variance in traded shares and financial derivatives. Because banks cannot recapitalize in due time, they are forced to borrow from outside the country, thus public debt.

In his article, Blundell-Wignall (2012) argues that one of the important features of the sovereign debt crisis is the extensive phenomenon of financial contagion. This phenomenon represents a serious problem for Europe, found in a poor fiscal condition due to the lack of fiscal consolidation. Thus, contagion could have a much higher expansion rate and generate the increase public debt rates.

The present study analyzes the public debt evolution of EU member states (EU27). With the EU, the uncontrolled growth of public debt is considered to be the main reason for which investors sanction European countries and maintain a climate defined by lack of confidence in the financial markets. During the financial crisis, government spending increased considerably due to the effort of stabilizing the financial system and stimulating the economy. One consequence was a sharp decrease in fiscal revenues. Higher expenses generated budget deficits or deepened existing deficits.

Table 1

Budget deficits within the EU

GEO/TIME	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
European Union	-2.6	-3.2	-2.9	-2.5	-1.5	-0.9	-2.4	-6.9	-6.5	-4.4
Belgium	-0.1	-0.1	-0.1	-2.5	0.4	-0.1	-1.0	-5.5	-3.8	-3.7
Bulgaria	-1.2	-0.4	1.9	1.0	1.9	1.2	1.7	-4.3	-3.1	-2.0
Czech Republic	-6.5	-6.7	-2.8	-3.2	-2.4	-0.7	-2.2	-5.8	-4.8	-3.3
Denmark	0.4	0.1	2.1	5.2	5.2	4.8	3.2	-2.7	-2.5	-1.8

Germany	-3.8	-4.2	-3.8	-3.3	-1.6	0.2	-0.1	-3.1	-4.1	-0.8
Estonia	0.3	1.7	1.6	1.6	2.5	2.4	-2.9	-2.0	0.2	1.1
Ireland	-0.4	0.4	1.4	1.7	2.9	0.1	-7.4	-13.9	-30.9	-13.4
Greece	-4.8	-5.6	-7.5	-5.2	-5.7	-6.5	-9.8	-15.6	-10.7	-9.4
Spain	-0.2	-0.3	-0.1	1.3	2.4	1.9	-4.5	-11.2	-9.7	-9.4
France	-3.1	-4.1	-3.6	-2.9	-2.3	-2.7	-3.3	-7.5	-7.1	-5.2
Italy	-3.1	-3.6	-3.5	-4.4	-3.4	-1.6	-2.7	-5.4	-4.5	-3.9
Cyprus	-4.4	-6.6	-4.1	-2.4	-1.2	3.5	0.9	-6.1	-5.3	-6.3
Latvia	-2.3	-1.6	-1.0	-0.4	-0.5	-0.4	-4.2	-9.8	-8.1	-3.4
Lithuania	-1.9	-1.3	-1.5	-0.5	-0.4	-1.0	-3.3	-9.4	-7.2	-5.5
Luxembourg	2.1	0.5	-1.1	0.0	1.4	3.7	3.2	-0.8	-0.8	-0.3
Hungary	-9.0	-7.3	-6.5	-7.9	-9.4	-5.1	-3.7	-4.6	-4.4	4.3
Malta	-5.8	-9.2	-4.7	-2.9	-2.8	-2.3	-4.6	-3.9	-3.6	-2.7
Netherlands	-2.1	-3.1	-1.7	-0.3	0.5	0.2	0.5	-5.6	-5.1	-4.5
Austria	-0.7	-1.5	-4.4	-1.7	-1.5	-0.9	-0.9	-4.1	-4.5	-2.5
Poland	-5.0	-6.2	-5.4	-4.1	-3.6	-1.9	-3.7	-7.4	-7.9	-5.0
Portugal	-3.4	-3.7	-4.0	-6.5	-4.6	-3.1	-3.6	-10.2	-9.8	-4.4
Romania	-2.0	-1.5	-1.2	-1.2	-2.2	-2.9	-5.7	-9.0	-6.8	-5.5
Slovenia	-2.4	-2.7	-2.3	-1.5	-1.4	0.0	-1.9	-6.0	-5.7	-6.4
Slovakia	-8.2	-2.8	-2.4	-2.8	-3.2	-1.8	-2.1	-8.0	-7.7	-4.9
Finland	4.2	2.6	2.5	2.9	4.2	5.3	4.4	-2.5	-2.5	-0.6
Sweden	-1.3	-1.0	0.6	2.2	2.3	3.6	2.2	-0.7	0.3	0.4
United Kingdom	-2.1	-3.4	-3.5	-3.4	-2.7	-2.8	-5.1	-11.5	-10.2	-7.8
Iceland	:	:	:	4.9	6.3	5.4	-13.5	-10.0	-10.1	-4.4
Norway	9.3	7.3	11.1	15.1	18.5	17.5	18.8	10.6	11.2	13.6
Croatia	-4.1	-4.5	-4.3	-4.0	-3.0	-2.5	-1.4	-4.1	:	:

Source: Eurostat

From the data presented in table 1, it can be observed that all EU members have violated the Maastricht treaty regarding budget deficit requirements in 2009-2011, namely every country registered a deficit exceeding the benchmark of 3% of GDP.

Greece, for example, registered the whole period a deficit above the 3% limit. Even after joining the EU, its budget deficit still remained 7.9% of GDP. In Ireland, during 2009-2011, the budget deficit surpassed nearly three times the limit imposed by the treaty, it reached the level of 13.9% in 2009 and sky rocketed to 30% of GDP in 2010. Regarding Spain, the deficit widened since 2008, thus reaching its most significant level of 11% of GDP in 2009. Italy has registered problems since 2009 and reached the highest level of 7% this year.

To mitigate budget deficits, EU states have reduced costs, on one hand, and increased some taxes, on the other hand. If in the period 2002-2007 the EU27 public debt registered small fluctuations around the level of 50%, since 2007 it has sharply increase by approximately 20% (figure 1).

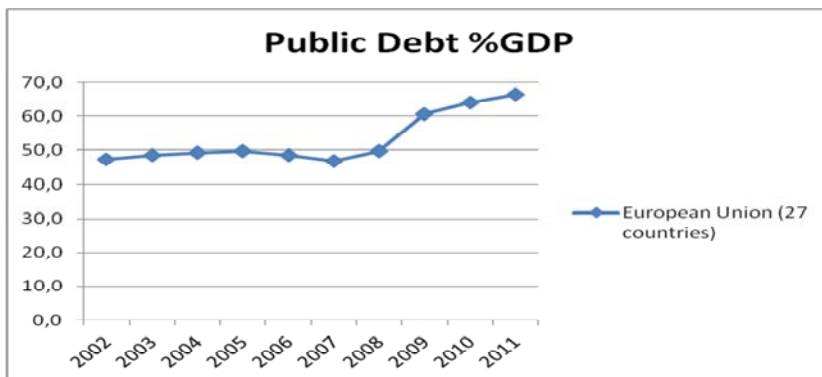


Figure 1. The evolution of EU27 public debt

Source: Based on Eurostat data

The Eurostat data unravels that the most risky countries proved to be Greece, Italy, Ireland, Spain, and Portugal. These countries have the highest investment risk, their public debt has grown rapidly in recent years and they continue to accumulate additional debt due to large budget deficits. The highest degree of leverage in the EU is towards Greece, i.e., 119.2% of GDP, followed by Italy with 101.6% of GDP.

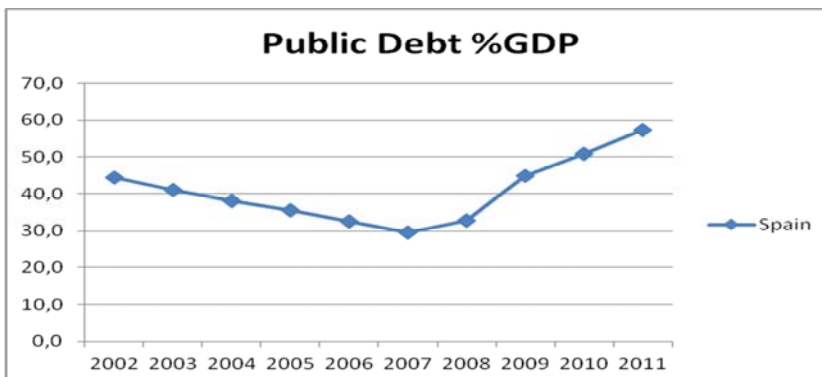


Figure 2. The evolution of Spain's public debt

Source: based on Eurostat data

As figure 2 shows, Spain registered a sharp rise in public debt from almost 29% of GDP in 2007 to around 60% of GDP in 2011.

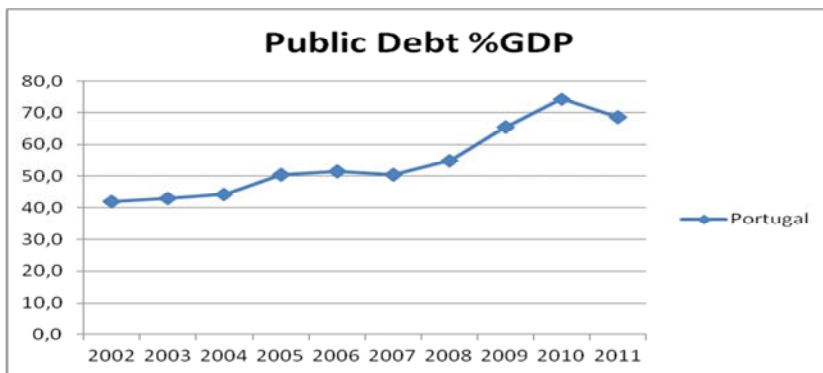


Figure 3. The evolution of Portugal’s public debt

Source: based on Eurostat data

From figure 3, one can see that, in Portugal, the maximum level of debt was registered in 2010, with about 80% of GDP, while in 2011 it slightly decreased to 70% of GDP.

More and more countries have a debt above 60% of GDP, thus increasing tension within financial markets and also investment risk. In recent years, even countries with stronger economies like Germany, France, or UK surpassed the safety limit, as shown by the following graphs.

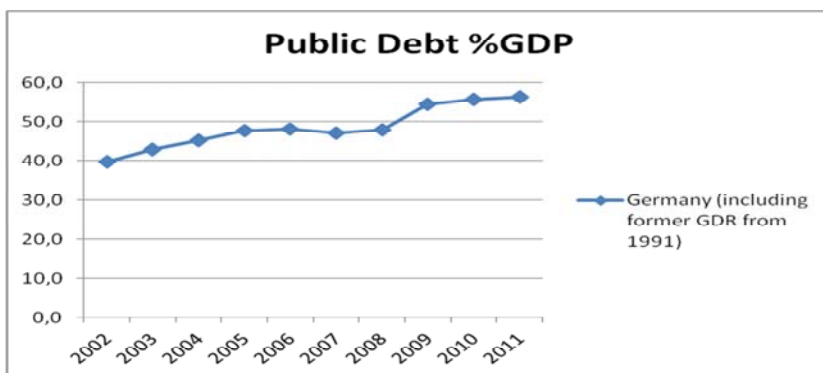


Figure 4. The evolution of Germany’s public debt

Source: based on Eurostat data

Germany is close to the maximum level of public debt under the Treaty of Maastricht, which is 60% of GDP (figure 4).

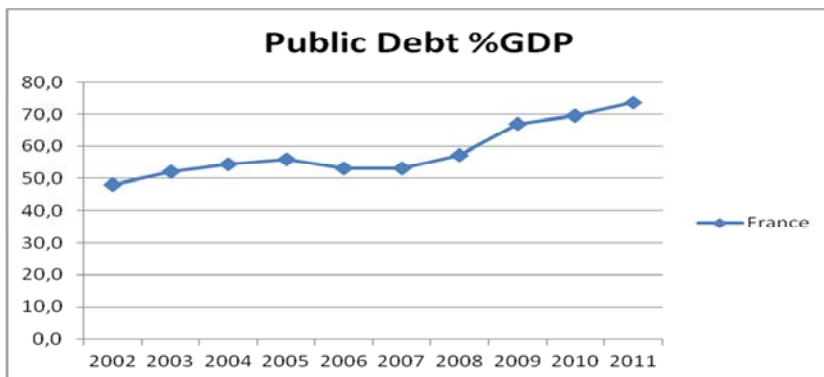


Figure 5. The evolution of France's public debt

Source: based on Eurostat data

Based on figure 5, France has exceeded the maximum level of public debt by almost 15 %.

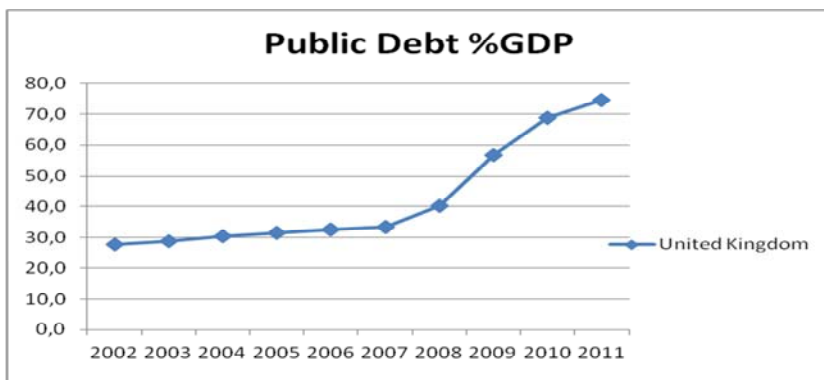


Figure 6. The evolution of UK's public debt

Source: based on Eurostat data

UK also has faced an increase in public debt, especially after the nationalization of Northern Rock bank in 2007.

Another group of countries are those with an average indebtedness level, ranging from 40% to 60% of GDP. These countries have managed to keep public debt under control: Czech Republic, Denmark, Poland, Sweden.

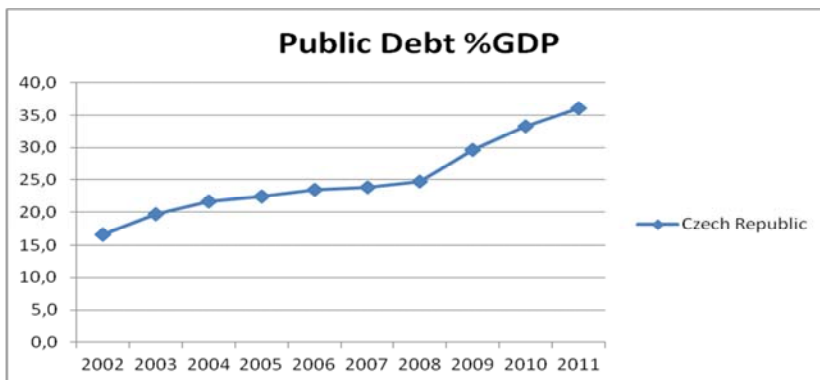


Figure 7. The evolution of Czech Republic's public debt

Source: based on Eurostat data

In Czech Republic, the level went from a minimum of 15% of GDP in 2002 to 35% of GDP in 2011. In our opinion, since 2003, the country could not be considered as having a low level of indebtedness.

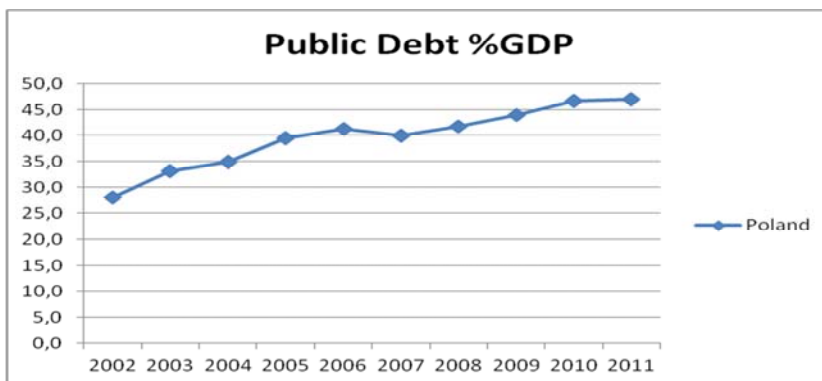


Figure 8. The evolution of Poland's public debt

Source: based on Eurostat data

As for Poland, the level of public debt remained unchanged for the last two years of study, i.e., 45% of GDP.

The least indebted countries are those with a ratio below 20% of GDP. Among them are Estonia and Luxembourg. Romania also qualifies for this category, with an average public debt.

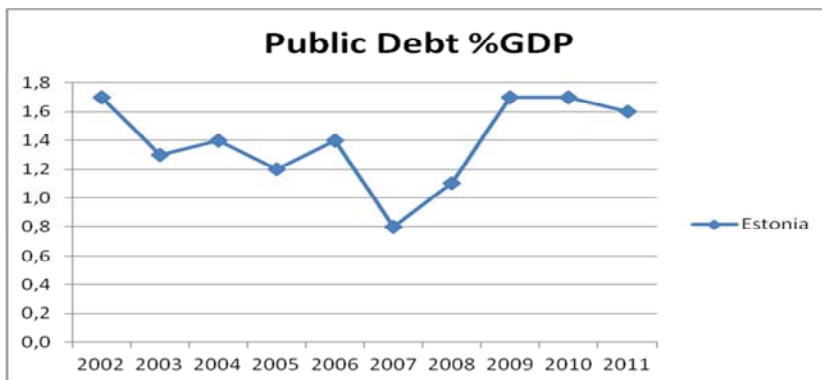


Figure 9. The evolution of Estonia's public debt

Source: based on Eurostat data

Figure 9 shows that debt rate in Estonia, though varying over the reporting period, does not exceed 18% of GDP, turning Estonia into a low gearing country.

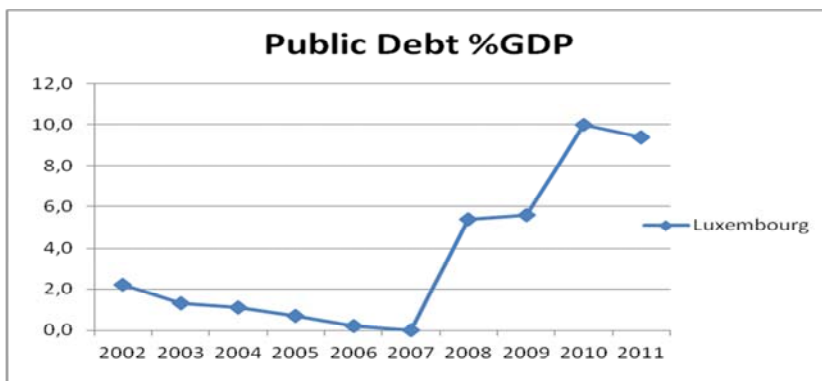


Figure 10. The evolution of Luxembourg's public debt

Source: based on Eurostat data

From figure 10, one can observe that, until 2007, Luxembourg had a very small public debt, closely to zero. The maximum level of debt was registered in 2010, with 10% of GDP.

4. CONCLUSIONS

Both debtor and creditor countries have been actively involved in searching for alternative solutions in order to solve the increasing public debt problem, especially the foreign debt issue.

Theory along with practice account that, for all governments, state loans were the only method of minimizing the effects of a financial crisis and covering extraordinary investment and consumption outlays. This method was also implemented by Romanian governments over time.

The blame for the sovereign debt crisis can be attributed to: 1) irresponsible fiscal policies implemented by some EU members, which sharply increased public debts; 2) imprudent bank lending strategies, which fueled asset bubbles and housing bubbles; 3) large-scale actions taken to save the banking sector, all funded by taxpayers; 4) fragility of the global financial system.

One of the important features of the sovereign debt crisis is the widespread phenomenon of financial contagion. This phenomenon could be defined as a situation in which financial instability of a market, an institution or a country is passed on to one or more markets, institutions and countries. A country with a poor fiscal situation can trigger contagion across countries with which it has economic ties. In the EU and moreover in the Euro zone, interconnection is stronger, therefore contagion might have a higher speed and a greater magnitude.

Throughout history, many countries poorly supervised their public debt ratio, fact which fuelled or spread crises. The uninspired structure could be attributed to: wrong maturities; interest rates; the currency in which the loan is contracted; the existence of governmental collateral.

As shown by the data presented, all EU member states have disregarded the Maastricht Treaty by exceeding, in 2009-2011, the benchmark budget deficit of 3% of GDP. To reduce budget deficits, EU member states have benefited from guidance and the aim would be achieved during the interval 2011-2014. Another treaty requirement has also been disregarded by all members, which have exceeded the maximum 60% of GDP level regarding public debt.

Any political or institutional solution given to the sovereign debt crisis should address the issue of debt reduction, without jeopardizing the objectives of the European Economic Recovery Program. One possible way of achieving this might be by combining the process of debt reduction with an increase in the investment in order to counterbalance the deflationary effects of debt reduction.

The sovereign debt crisis requires both a political and a financial solution, because it has raised concerns regarding the fairness and transparency of financial arrangements aimed at ensuring the stability of the single currency, the Euro.

If, during the banking crisis, it was often said that some banks were “too big to be allowed to fail”, nowadays we refer to member states faced with rising public debt as “too important to be allowed to enter into default”.

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**THE EUROPEAN DEBT CRISIS: CAUSES AND
CONSEQUENCES**

JEL classification: E6, F3, G01

Abstract

A common explanation for the European debt crisis has been that the introduction of the euro in 2001 caused interest rates to fall in those countries where expectations of high inflation previously kept interest rates high. Bond buyers assumed that a bond issued by any government in the European Monetary Union was equally safe. As a result, the interest rates on Greek, Italian, etc. government bonds were not significantly different from the interest rate on the German government bonds. Governments responded to the low interest rates by increasing their borrowing. However, data do not endorse this explanation, as is shown in the paper. An alternative explanation has been that the European debt crisis was just a consequence of the American subprime one. Again, data do not entirely support this hypothesis although the connection between both crises is explored in the paper. A third argument states that the introduction of the euro, and its effects on external competitiveness, triggered mounting disequilibria and debt accumulation in the noncore countries or periphery. This argument seems to be valid to a certain extent just in the cases of Greece and Portugal, but not for the rest of the countries involved in the crisis where other factors seem to have played a major role. A distinction is made between a first group of countries whose debt problems have roots before 2007 but did not worsen significantly after that year and a second one of "new" highly indebted countries. Finally, Spain appears as a special case. The development of the indebtedness process in these three different types of countries allows isolating the factors which were determinant in each case. The conclusion

is that the European indebtedness process does not accept a unique explanation and its solution will necessarily require resource transfers from the richer to the poorer countries of the euro-zone.

Keywords: *sovereign-debt crisis, euro-zone, budget deficit.*

1. INTRODUCTION

In late 2009, the then recently appointed Greek Prime Minister George Papandreou announced that previous governments had failed to reveal the true size of the nation's deficits. Greece's debts were larger than had been reported.¹ After that, the Portuguese, Spanish and Italian public debts also became a matter of concern because their government debt/GDP ratios were near to the Greek one. The European sovereign debt crisis had started.

This paper is organized as follows. Section 2 analyzes the origin of the crisis in these European countries. In Section 3, the specificities of euro debt are discussed. Section 4 analyzes the case of Ireland whose debt crisis preceded the Greek one. Section 5 is devoted to the latter. The role of a single currency on regional imbalances is underlined in Section 6. The case of Spain is analyzed in Sections 7 and 8. Section 9 is devoted to the analysis of the Italian case. Section 10 summarizes the findings of the paper and concludes.

2. EVOLUTION OF COUNTRIES' INDEBTEDNESS

A first question has to do with the origin of the European debt crisis. Some people have pointed their fingers at the American financial crisis. "This crisis was not originated in Europe," claimed the EU Commission President Jose M. Barroso, who added: "This crisis originated in North America and much of our financial sector was contaminated by... unorthodox practices from some sectors of the financial market."²

However, as we shall see, Greece and Italy were already heavily indebted as early as 1996, long before the US financial crisis blew up. However, this does not exclude the possibility of some connection between both crises, which is explored below by comparing the debt situation before and after 2007.

¹In fact, in 2004, Eurostat had already revealed that the statistics for the budget deficit had been under-reported at the time Greece was accepted into the European Monetary Union in 2000. According to Eurostat, the 1999 deficit was 3.4% of GDP instead of the originally reported 1.8%.

²*The Week*. June 20, 2012. <http://theweek.com/article/index/229570/did-the-us-cause-the-european-debt-crisis>.

A second question is how the debtor country governments as the Greek one became so highly indebted. A common explanation for this has been the following.³

Banks in Germany, France and elsewhere had bought and exposed themselves massively to Greek debt because they assumed that Greek debt, like other euro-area public debt, was essentially risk-free.

Because the monetary union made the commitment to low inflation more credible, the introduction of the euro in 2001 caused interest rates to fall in those countries where expectations of high inflation previously kept interest rates high.

Bond buyers assumed that a bond issued by any government in the European Monetary Union was equally safe. As a result, the interest rates on Greek and Italian government bonds were not significantly different from the interest rate on German government bonds. Governments responded to these low interest rates by increasing their borrowing.

However, the data do not endorse the former explanation. Table 1 shows the general government debt/GDP ratio in 2010 for those countries whose public debt ratio exceeded the average for the 27 EU countries as a whole. France and Germany are among the more than average indebted countries, which shows that high indebtedness is not solely a southern country phenomenon.

Table 1**General government gross debt**

(Percentage of GDP) - 2010

Country	2010
EU (27 countries)	80.1
Greece	144.9
Italy	118.4
Belgium	96.2
Portugal	93.3
Iceland	92.9
Ireland	92.5
Germany	83.2
France	82.3
Hungary	81.3

Source: Eurostat

³See, for example, Feldstein (2012).

Table 2 shows the evolution of government debt between 1996 and 2010 for a selected group of countries. First, it can be noted that some of the now highly indebted countries did not exceed the Maastricht limit of 60% of GDP until as recently as 2007.

Table 2**Evolution of general government gross debt**

(Percentage of GDP) - 1996/2010

Country	2007	2008	2009	2010	2010/07
EU (27 countries)	59.00	62.5	74.7	80.1	35.76
Ireland	24.8	44.2	65.2	92.5	272.98
Iceland	28.5	70.3	87.9	92.9	225.96
Romania	12.8	13.4	23.6	31.0	142.19
UK	44.4	54.8	69.6	79.9	79.95
Spain	36.2	40.1	53.8	61.0	68.51
Portugal	68.3	71.6	83.0	93.3	36.60
Greece	107.4	113.0	129.3	144.9	34.92
Hungary	67.0	72.9	79.7	81.3	21.34
Italy	103.1	105.8	115.5	118.4	14.84
Belgium	84.1	89.3	95.9	96.2	14.39

Source: Eurostat

Second, the public debt to GDP ratios of Greece, Ireland, Belgium, Spain and Italy were almost the same in 2007 as they were in 2001 (in some cases, they were even lower). This contradicts the idea that it was the introduction of the euro and the consequent fall in interest rates that stimulated governments to substantially increase their borrowing.

On the other hand, Greece, Italy, Portugal, Belgium and Hungary had already exceeded the 60% Maastricht limit in 2007,⁴ when the American subprime crisis started. However, they shared the slowest increasing government debt/GDP ratios between 2007 and 2010. Even more, by 1996 – before the introduction of the euro – Italy, Greece and Belgium were already highly indebted countries.

Therefore, we can distinguish a first group of countries whose debt problems have roots before 2007 and did not worsen significantly after that year:

⁴As Hungary is not a member of the euro-zone, the Maastricht criteria was not mandatory for it.

Greece, Italy, Portugal, Belgium and Hungary. Moreover, by 2001 Greece's public debt/GDP ratio was already 103.7 compared with 108.2 for Italy and 106.5 for Belgium. This last country is a special case because it is the only one in the group that reduced its debt between 2001 and 2007.

A second group is formed by those "new" highly indebted countries: Ireland and Iceland. They showed the highest rates of increase in their public debt to GDP ratios between 2007 and 2010 and their 2010 ratios were above the average for the EU. Romania also had a fast growing ratio but the level of public debt attained in 2010 as a percentage of GDP was still far below the average for the EU.

The United Kingdom comes immediately below these countries with a debt to GDP ratio practically equivalent to the EU average. Finally, we have Spain, whose government debt to GDP ratio was in 2010 only a bit above the Maastricht limit and had increased at a lower rate than the UK's ratio between 2007 and 2010. However, while the UK's debt was considered to be safe, Spain's debt was no better rated than those of Portugal or Italy.

Thus, there are different cases to consider rather than a single story for European countries' indebtedness process. The idea that we may have a unique explanation for the debt crisis is also presented in Perez-Caldentey and Vernengo (2012, 3), who argue that "the crisis in Europe is the result of an imbalance between core and noncore countries that is inherent in the euro economic model." They also maintain that it was the euro, and its effects on external competitiveness, that triggered mounting disequilibria and debt accumulation in noncore countries or peripheries. As we will see, this argument seems to be valid to a certain extent just in the cases of Greece and Portugal, but not for the rest of the countries involved in the crisis where other factors seem to have played a major role.

In what follows, we concentrate our analysis on the five euro-area countries in the eye of the debt crisis storm with a casual reference to the case of Iceland.⁵

3. SPECIFICITIES OF THE EURO-AREA PUBLIC DEBT

A first peculiarity of the euro-area public debt is that, strictly speaking, it is neither purely domestic nor purely external. Most of the public debt issued by

⁵ The Cyprus banking crisis is an especial case, mainly the result of the Greek sovereign debt haircut, although it has something in common with Iceland's case.

euro-area countries is denominated in euro and is mostly held by euro-area residents. Yet, it is different from the domestic debt of countries owning their own currencies because more of it is held outside the issuing country and because the issuing country does not have full control over the currency in which the debt is denominated. Therefore, debt in the euro-area can be considered to be both 'foreign' and 'domestic' (Gianviti et al., 2010, 18).

This means that euro-area public debt is not subject to the currency mismatch associated with external debt: governments have to pay their debts in the same currency they collect their revenues. However, it also means that a national government cannot revert to high inflation to rid itself of an excessive debt burden, as might be the case if the debt were strictly domestic.

The European Monetary Union seems to assume that sovereign debt crises cannot happen. At least, it has no provision for them. Moreover, the common reading of Article 125 of the Lisbon Treaty has been that it rules out the possibility of a bailout of an EU member state by other member states or by the EU. Therefore, without these inflation and bailout channels, a country with a situation of excessive debt has only two ways out of it: severe and harmful fiscal retrenchment or default.

4. THE NEW HIGHLY INDEBTED COUNTRIES: THE CASE OF IRELAND

Ireland's economy had by 2007 already become dangerously dependent on construction and housing as a source of economic growth and tax revenue. A lightly regulated financial system fed on this process. In fact, the growing construction boom was fuelled by the increasing reliance of Irish banks on wholesale external borrowing at a time when international financial markets were awash with cheap investable funds. The fact that Ireland was a founder member of the euro-zone brought a dramatic and sustained fall in nominal and real interest rates that stimulated the protracted building boom. Specific tax incentives boosted the overheated construction sector. From late 2003 onwards, banks stimulated demand with financial innovations such as 100% loan-to-value mortgages.

When the global economic environment changed at the beginning of 2007, Irish residential property prices started falling and kept falling during the rest of 2007 and 2008. Heavy loan losses on the development property portfolios acquired at the peak of the market became inevitable. The decline in property prices and the collapse in construction activity resulted in severe losses in the Irish banking system. The story is not very different from the one that led to the US subprime crisis. "In their anxiety to protect market share against the competitive inroads of Anglo Irish Bank and UK-based retail lenders, their (Irish) banks' management tolerated a gradual lowering of lending standards, including decisions to authorize numerous exceptions to stated policies." (Governor of the Central Bank of Ireland, 2010, 8). This was tolerated by an unduly deferential

approach to the banking industry by regulators. Outside bodies such as the IMF and OECD never drew attention to the threats that lay ahead.

Although banks carried out a quantification of risks in the context of the stress test exercises reported annually to the regulatory authority, “the capacity of the banks to undertake the exercise differed greatly; indeed none of them had reliable models, tested and calibrated on Irish data, which could credibly predict loan losses under varying scenarios” (Ibid., 11).

While at the end of 2003, the net indebtedness of Irish banks to the rest of the world was just 10% of GDP, by early 2008 borrowing, mainly for property, had jumped to over 60% of GDP. By early 2008, Irish banks found it more difficult to maintain funding in the international wholesale markets and, at the same time, there was a more rapid pull back by domestic investors from the property market.

Two weeks after Lehman Brothers announced it would file for Chapter 11 bankruptcy protection, the provision of a blanket system-wide state guarantee for Irish banks was announced. This measure was taken because of the drain of liquidity that had been affecting all Irish banks and that had brought one important bank to the point of failure.

Government spending doubled in real terms between 1995 and 2007, rising at an annual average rate of 6%. With the economy growing at an even faster rate, this implied a generally falling or stable expenditure ratio of expenditure to GDP until 2003. However, thereafter the ratio rose, especially after output growth began to slow in 2007 and the collapse in tax revenues in 2008–09. Much of the reason for the revenue collapse lies in the systematic shift over the previous two decades away from stable and reliable sources such as personal income tax, VAT and excises towards cyclically sensitive taxes as corporation tax, stamp duties and capital gains tax.

In April 2009, the Irish government established the National Asset Management Agency (NAMA), with the mandate to purchase the universe of development-related loans (above a certain value) from banks. This category of loans was the main source of uncertainty concerning total loan losses. During 2009–10, NAMA purchased most of these loans at a steep average discount, but this meant that banks required substantial upfront recapitalization programs, which could only be provided by the state. These higher capitalization costs led to a sharp increase in gross government debt. Extra capital requirements by the banking system in 2009 and 2010 contributed to increased market concerns about the sustainability of the fiscal position. In fact, the deficit, as measured by the general government balance, widened from balance in 2007 to 7.3% of GDP in 2008 and to 14.1% in 2009, before it increased to 31.2% of GDP in 2010 due to the substantial government support to Irish banks. Excluding support to the banking system, the deficit was 11.5% of GDP in 2009 and 10.9% of GDP in 2010. The public funds aimed at rescuing the Irish banking sector represented 12.5% of Ireland’s GDP. As shown in Table 2, Irish public debt soared from

24.8% of GDP in 2007 to 92.5% in 2010. Finally, the Irish government had to request assistance from the EU and IMF in November 2010 to avoid default on its public debt.

5. THE “OLD” INDEBTED COUNTRIES: THE CASE OF GREECE

As stated before, Greece did not comply with the Maastricht criterion with respect to the budget deficit at the time it joined the euro-zone in 2001. “Creative” statistics allowed it to be admitted into what has been conceived as a very exclusive club. Its debt/GDP ratio was already 103.7 in 2001, far above the 60% Maastricht criterion.⁶ However, it declined to 97.4 in 2003. From then on, it kept increasing until reaching 144.9 in 2010. This reflected the increasing budget deficit Greece’s public accounts had shown since 2000 (Table 3).

Table 3

General government expenditure, revenue and deficit

2000/11

(Percentage of GDP)

Year	Expenditure	Revenue	Balance
2000	46.7	43.0	-3.7
2001	45.3	40.9	-4.4
2002	45.1	40.3	-4.8
2003	44.7	39.0	-5.7
2004	45.5	38.1	-7.4
2005	44.6	39.0	-5.6
2006	45.2	39.2	-6.0
2007	47.6	40.8	-6.8
2008	50.6	40.7	-9.9
2009	53.8	38.2	-15.6
2010	50.2	39.7	-10.5
2011	50.1	40.9	-9.2

Source: Eurostat

⁶Notwithstanding its noncompliance with the Maastricht debt standard, Greece was admitted with the argument that it was expected to be making progress over time towards that goal.

Entrance into the euro-zone meant that Greece –as the other members of the euro-zone- gave up one of the tools a country has to reduce its budget deficit: devaluation. In fact, in equilibrium:

$$(I_d - S) + (G - T) = M - X$$

where I_d is domestic investment, S is national saving, G is government expenditure, T is government revenue and $(M - X)$ stands for current account balance. A devaluation will reduce the value of $(M - X)$; if the domestic private balance does not change, the government balance will be reduced.⁷ The most direct way to do this is by taxing exports, as Argentina did in 2002, where export taxes absorbed a good part of the devaluation effect on exportable domestic prices.

As a matter of fact, Georgantopoulos and Tsamis (2011, 161) find for Greece, during the period 1980–2009, a significant unidirectional causal relationship between exchange rates and budget deficit running from the nominal effective exchange rate to the budget deficit. Moreover, they concluded that “a significant part of budget deficits’ variance is caused by exchange rates since with a seven period lag 61.89% of [the budget deficit] is explained by [the nominal effective exchange rate] and by the end of the ten-year lag 83.97% of budget deficits’ variance is caused by nominal effective exchange rates.”

The continuous revaluation of the euro worsened Greece’s budget imbalance after 2000. Figure 1 illustrates the relationship between the euro/dollar rate of exchange and the one-year lagged budget deficit/GDP ratio between 2000 and 2011. This runs in the same direction as the relationship found by Georgantopoulos and Tsamis. However, in his analysis of the European crisis, Lapavitsas (2012, 4) does not pay attention to this factor and only mentions that peripheral countries joined the euro at generally high rates of exchange with the purpose of controlling inflation.

⁷The opposite happens, of course, in the case of a revaluation of the local currency.

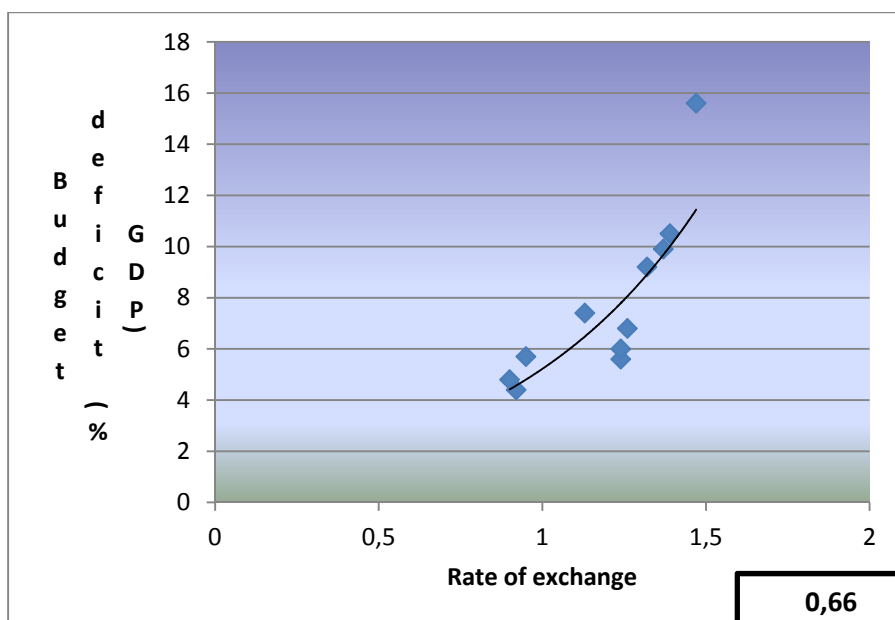


Figure 1. Budget deficit and euro rate of exchange. 2000–2011

What is the explanation for this positive association between the rate of exchange and budget imbalance? The appreciation of the euro⁸ resulted in a loss of external competitiveness in the Greek economy, which led to a persistent deficit in the current account (Figure 2). An appreciation of the real exchange rate increases the purchasing power of domestic incomes in terms of imported goods. More imports and fewer exports result in a slowdown in economic activity. Tax revenues decline, while the government feels compelled to keep or increase public expenditure to make up for the decline in private demand. The budget deficit increases and so does public debt. Increasing demand for funds by the public sector leads to an increase in interest rates, which depresses again economic activity. According to the figures in Table 3, public revenues have declined since Greece joined the euro-zone; since 2007, public expenditure increased, accelerating the rise in the budget deficit.

⁸The exchange rate between dollar and euro was, in October 2000, 0.85 \$/€ and reached in April 2008, 1.60 \$/€; an appreciation of 88%.

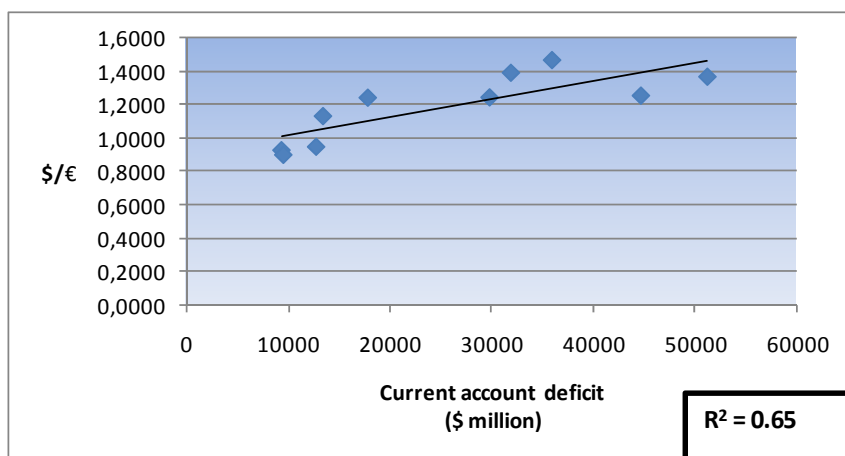


Figure 2. Current account deficit and the euro rate of exchange. 2001/11

However, in the literature related to the “twin deficits hypothesis,” it has usually been argued that causality runs from the government budget deficit to the current account, not the other way around. However, empirical studies are far from conclusive: in some cases, they support the conventional hypothesis;⁹ others support the reverse causality running from the current account deficit to the fiscal deficit;¹⁰ some support the Ricardian equivalence that budget and trade deficits are not correlated.¹¹ And, finally, some find both types of evidence or a bilateral relationship.¹²

In the case of Greece, it is clear that, since the introduction of the euro, causality cannot run from the budget deficit to the nominal rate of exchange. Moreover, when the budget deficit variable is introduced with a one-year lag.

The increasing Greek debt was primarily the result of growing budget deficits triggered by the appreciation of the euro and the consequent loss of competitiveness experienced by the Greek economy. This brings us to the issue of regional imbalances raised by Perez-Caldentey and Vernengo (2012).

⁹Abell (1990), Bachman (1992), Piersanti (2000), Leachman and Francis (2002), Cavallo (2005) and Erceg et al. (2005).

¹⁰Anoruo and Ramchander (1998), Khalid and Teo (1999) and Alkswani (2000).

¹¹Miller and Russek (1989), Dewald and Ulan (1990), Enders and Lee (1990) and Kim (1995).

¹²Mukhtar et al. (2007) and Islam (1998).

6. THE EXCHANGE RATE AND REGIONAL IMBALANCES

The euro-area aggregate trade and current account position have always been close to balance but this only means that the euro rate of exchange is in line with the competitiveness of the core countries of the euro-zone. Many industries in Greece and other peripheral countries are not competitive at that rate of exchange; that is why these countries run increasing current account deficits (see Table 4). In fact, external imbalances diverge sharply in the euro-area: while Germany, the Netherlands and Finland run significant surpluses, countries in southern Europe run huge deficits.

Table 4

Current account balance in selected EMU countries- 2001/10

(Percentage of GDP)

	2001	2002	2003	2004	2005
France	1.8	1.2	0.7	0.5	-0.5
Germany	0.0	2.0	1.9	4.7	5.1
Netherlands	2.6	2.6	5.5	7.6	7.4
Finland	8.4	8.5	4.8	6.2	3.4
Greece	-7.2	-6.5	-6.5	-5.8	-7.6
Italy	0.3	-0.4	-0.8	-0.3	-0.9
Portugal	-10.3	-8.2	-6.4	-8.3	-10.3
Spain	-3.9	-3.3	-3.5	-5.2	-7.4

	2006	2007	2008	2009	2010
France	-0.6	-1.0	-1.7	-1.5	-1.7
Germany	6.3	7.5	6.3	5.6	5.7
Netherlands	9.3	6.7	4.3	4.2	6.6
Finland	4.2	4.3	2.6	1.8	1.4
Greece	-11.4	-14.6	-14.9	-11.1	-10.1
Italy	-1.5	-1.3	-2.9	-2.0	-3.5
Portugal	-10.7	-10.1	-12.6	-10.9	-10.0
Spain	-9.0	-10.0	-9.6	-5.2	-4.6

Source: Eurostat

The euro-zone reproduces the sort of regional problems that exist within many countries. There is a highly competitive core and a relatively backward periphery. Therefore, a long-run strategy for regional convergence is needed and, at the same time, a short-run one to smooth the transition process. Although EU regional policy aims at promoting the “harmonious, balanced and sustainable development of the European Union,” it has proven up to now to be insufficient to face the specific consequences of the monetary union. Therefore, the Greek government had to face the outcome of joining the euro-zone and had to take decisions that resulted in a worsening of the heavy indebtedness pre-existing at the time of joining the euro-zone.

Katsimi and Moutos (2010) emphasise the role of current of account imbalances due to the loss in Greek international competitiveness. However, productivity gaps and external deficits exist within each country. All American states have the same productivity? What about East and West Germany? Who cares what their external balances are? A region within a country can run a current account deficit indefinitely as long as there is a transfer of resources from the richer to the poorer regions. Therefore, this should not be a problem for the euro-zone provided those who, thanks to the euro-zone, benefit of external surpluses are ready to transfer resources to the backward periphery. This is the real issue at stake as far as the productivity gap is concerned.

Germany’s unification process could have been an interesting antecedent to take into consideration. The major economic implication of German economic and monetary union was precisely that East Germany would run a current account deficit with the rest of the country that was financed by transfers from the West. In the case of Germany, the New Länder began with an enormous competitive disadvantage and West Germans were supposed to transfer between 3% and 4% of GDP per annum to the East (Carlin, 1998, 16). However, no provision was taken in the euro-zone to make up for the short-run negative consequences that peripheral economies could suffer from joining the euro.¹³

In fact, when the monetary union was implemented in 1999, the functioning of the single currency was seen as a sort of panacea, making additional policy targeting seem superfluous. However, the result has been an increasing current account deficit for Greece and other peripheral countries. What has not been done before in the form of resource transfers from the richer to the poorer countries of the euro-zone has to be done in the way of helping these countries restructure their debts.

Somebody may argue that internal devaluation is the way through which Greece could become competitive. Downwards price and wage inflexibility makes this a very painful and unbearably long process. It did not work in Argentina, which, after three years of an ever-deepening recession/depression, had no alternative but to default and devalue its currency. It does not seem to be a valid alternative for Greece either.

¹³I refer here to the specific consequences of joining the euro, which are independent of those following the EU integration to make up for which there were significant resource transfers, particularly through structural funds.

7. SPAIN: A SPECIAL CASE

The weight of Spain's public debt as of 2011 was substantially lower than the weight of the debt of the United Kingdom and of Germany. Spain's government debt ratio was just 68.5 of GDP against 85.7 in the UK and 81.2 in Germany, not to mention 165.3 in Greece and 120.1 in Italy. Why was, then, Spain involved in the European financial crisis? There is just one single reason: because it evoked the Irish case. In 2007, the public debt to GDP ratio in Ireland was only 24.8. However, it soared to 65.2 in 2009.

As in Ireland, construction had been a fast growing industry in Spain. It expanded at a rate of 5% per year between 1996 and 2007. Between 1998 and 2007, the number of housing units grew 30% (Arellano and Bentolila, 2009, 28). House prices increased dramatically and people expected the process to go on without an end. Real house prices – house prices adjusted for the change in the consumer price index – increased by 127% between 1996 and 2007 (André, 2010, 9). Therefore, real estate became the preferred destination for savings. Tax benefits¹⁴ stimulated even greater demand for real estate, biasing household investment to housing in place of other types of assets. This process was reinforced after 1999. After becoming a member of the euro-zone, Spain benefited – as in the case of Greece and other southern Europe countries – from a drastic reduction in interest rates. The flight of capital from the equity markets that occurred between 2000 and 2003 was primarily funneled to the real estate sector. Loans became available at lower interest rates. Therefore, businesses and individuals saw their borrowing capacities increase; this stimulated the demand for house building. Housing became a shelter for assets: real estate investments promised attractive capital gains. Houses were bought because prices were expected to rise and prices rose because there were more and more purchases increasingly financed by loans. The construction market flourished. Banks offered 40-year and, later, even 50-year mortgages. The construction sector increased its share of Spanish GDP from 6.9% in 1995 to a high of 10.8% in 2006. In 2007, construction accounted for 13.3% of total employment. However, that year, coinciding with the global economic crisis, the real estate bubble burst. When international liquidity – until then cheap and plentiful – started lacking, the Spanish real estate market entered a crisis. Prices started declining in 2008.

Regional loans and savings banks, the so-called “*cajas*,” were very active in the real estate market. They owned 56% of the country's mortgages in 2009. They were the first victims when the market crashed that year: debtors fell into bankruptcy and bad loans dramatically increased. In March 2009, the Spanish government announced its first bailout of a *caja*. After that, more bank bailouts were announced by the Spanish government. While these government bailouts kept these banks from going bankrupt, investor confidence in the Spanish economy sunk even lower. Many real estate developers avoided bankruptcy only because banks kept permitting them to refinance their loans. In this way, loans were reported as performing. In May 2012, Bankia, a bank that resulted from the merger of several *cajas*, had to be bailed out by the government.

¹⁴Altogether, 15% of mortgage payments are deductible from personal income taxes in Spain.

At that time, it was the fourth bank by size in the Spanish ranking of banking institutions.

8. THE EVOLUTION OF PUBLIC FINANCE IN SPAIN

Table 6 shows the evolution of general government expenditure, revenue and deficit between 2000 and 2011. It shows that Spain had a small deficit between 2000 and 2004, far below the ceiling of 3% of GDP that the European Stability and Growth Pact established for member states after the introduction of the euro on January 1, 1999. From 2005 to 2007, the increase in revenues allowed the government to run a surplus. The situation abruptly reversed in 2008 precipitated by a significant decrease in revenues, a decline that deepened in the following years, as a reflection of the international financial crisis.

Table 6

General government expenditure, revenue and balance
2000/11
(Percentage of GDP)

Year	Expenditure	Revenue	Balance
2000	39.2	38.2	-0.9
2001	38.7	38.1	-0.5
2002	38.9	38.7	-0.2
2003	38.4	38.0	-0.3
2004	38.9	38.8	-0.1
2005	38.4	39.7	1.3
2006	38.4	40.7	2.4
2007	39.2	41.1	1.9
2008	41.5	37.0	-4.5
2009	46.3	35.1	-11.2
2010	45.6	36.3	-9.3
2011	43.6	35.1	-8.5

Source: Eurostat

As can be seen in Table 7, the rate of growth plummeted in 2008 and became negative in 2009 and 2010. The contraction in international liquidity supply was followed by a restriction on credit and subsequently by a sharp decline in construction and employment. The increase in unemployment meant a

rise in spending on unemployment and other social benefits. The bailout of several *cajas* was another source of increase in public expenditure. On the other hand, the decline in GDP was followed by a weakening of public revenues, especially those linked with the real estate sector.

Table 7**Annual rates of growth****2000/11**

Year	GDP rate of growth
2000	5.00%
2001	3.60%
2002	2.70%
2003	3.10%
2004	3.30%
2005	3.60%
2006	4.00%
2007	3.60%
2008	0.90%
2009	-3.70%
2010	-0.10%
2011	0.70%

Source: INE

Therefore, the swift deterioration of Spain's public finance flashed warning lights on the capacity of its government to face the services of its increasing public debt, which had exceptionally short maturity structures. Spain was following Ireland's steps with a three-year delay.

9. ITALY: A DIFFERENT "OLD" DEBTOR

The Italian government was highly indebted long before the crisis outburst. In 2007, the general government debt to GDP ratio was already 103.1, second only to Greece, and well above the 60% Maastricht criterion. However,

nobody worried at that time for the Italian public debt and the Italian government had no problem refinancing it. Between 2007 and 2010, it only increased 15%.

However, the American financial crisis deeply affected the Italian economy. The transmission mechanism was the contraction in the interbank loan market that was the immediate consequence of the crisis. Banks refused to lend money to each other because of a lack of liquidity and the uncertainty about the financial soundness of borrowers. Besides the contraction in liquidity, Italian banks were also affected by their close links with central and eastern European countries where they had built a network of branches and affiliated banks. There was a risk of the collapse or illiquidity of this part of the network. The government responded to the risk of banking crisis by guaranteeing bank deposits to a maximum of €103,000 in the event of a bankruptcy. This avoided a bank run on deposits. However, banks reacted to the liquidity crisis by reducing credit to clients and consumers and raising the amount of collateral required for new loans. These measures affected investment and consumption. Bugamelli et al. (2009, 11) estimate that in the period from January 2008 to June 2009 production fell by more than 35% in sectors such as electrical machinery, metallurgy and cars. The GDP rate of growth became negative in 2008 and 2009 (Table 8). Growth resumed in 2010, but was snuffed out in 2011.

Table 8

**Annual rates of growth
2000/11**

Year	%
2000	3.7
2001	1.9
2002	0.5
2003	0.0
2004	1.7
2005	0.9
2006	2.2
2007	1.7
2008	-1.2
2009	-5.5
2010	1.8
2011	0.4

Source: Eurostat

The reduction in economic activity cut the amount of tax collected and anti-cyclical policies increased public expenditure. As a result, there was a significant increase in the public deficit (see Table 9).

Table 9**General government balance****2000/11**

(Percentage of GDP)

Year	%
2000	0.8
2001	-3.1
2002	-3.1
2003	-3.6
2004	-3.5
2005	-4.4
2006	-3.4
2007	-1.6
2008	-2.7
2009	-5.4
2010	-4.6
2011	-3.9

Source: Eurostat

After Berlusconi stepped down, the new Prime Minister Mario Monti launched a deep austerity plan including measures such as increasing the retirement age, raising property taxes, simplifying the operation of government agencies and going after tax evaders.

In contrast to most European countries, the banking system in Italy practically did not resort to any public help between 2008 and 2011. Italian banks mainly faced the crisis by raising funds in capital markets. Italy's banking system required very low support from the ECB (Table 10). The results of the EU-wide stress test carried out by the European Banking Association in 2010 and 2011 show that the included Italian banks successfully passed the test. Moreover, the Italian banking system seems to have low exposure to government debt; it holds

less than 10% of domestic public debt –against more than 40% in the case of Spanish banks – as well as low exposure to foreign sovereign risk, which represents only 23% of the total government debt Italian banks hold (see Bolton and Jeanne, 2011).

Table 10

Funds provided by the ECB to national banking systems as of December 2011

Percentage of GDP

Country	%
Ireland	87.79
Greece	61.46
Portugal	27.65
Nederlands	26.9
Spain	16.83
Italy	12.65
France	10.89
Belgium	9.54
Austria	4.5
Germany	2.16

Source: OECD

Therefore, in contrast to Spain, Italy's problem seems to be essentially located in its public debt, whose ratio to GDP, although high, is no worse than it was 20 years ago, when nobody worried about it. In fact, the country's debt first hit 120% of GDP in 1993, after the public deficit reached 9.5% of GDP in 1992.

After the exchange rate turmoil that hit the European monetary system in 1992, Italy devalued the lira. Italian trade performance improved as import growth slowed, while export growth remained relatively constant. Therefore, Italy went into the euro-zone with a large surplus on its trade accounts. The high levels of Italian public debt only became a problem when, in the context of the 2011/12 European economic climate, the private sector began to lose confidence in the ability of the Italian state to service its debt.

10. SUMMARY AND CONCLUSIONS

The European indebtedness process does not accept a unique explanation. Of course, it may be argued that the European as well as the American crises are just chapters in a *global* credit bubble (McKinsey Global Institute, 2011) or the consequences of a global money or savings glut. However, this explains little except that Europeans and Americans have had access to cheap money during the past 10 years.

This paper shows that among the most indebted European countries there are at least two different groups. One made up of “old” debtors, whose debt to GDP ratios slightly grew between 2001 and 2007. This means that in these countries the debt problem antecedes the introduction of the euro. A second group of “new” debtors comprises those countries whose debt suddenly increased as a result of the 2007/08 financial crisis. These are the cases of Ireland and Iceland.

Spain is a special case whose debt to GDP ratio was substantially lower than the weight of the debt of the United Kingdom and Germany not to mention Greece or Italy. However, its public debt was severely punished by the market because of the doubts about its banking system’s health, which raised suspicion that it might require governmental support, as in the cases of Ireland and Iceland.

Therefore, although it is true that the US financial crisis triggered the European debt crisis, it did it through different channels. In the cases of Ireland and Iceland, through a severe credit squeeze and a reduction in banks’ abilities to access the capital markets. The drain of liquidity experienced by the banking system precipitated governmental intervention with the consequential jump in public debt. However, in the cases of Greece, Italy and Portugal, the American financial crisis mainly brought attention upon the fiscal situation of countries already heavily indebted, who could face growing difficulties to roll over their debts in an increasing climate of fear and distrust.

Far from helping to reverse their pre-existing fiscal imbalances, entrance into the euro-zone had aggravated them for Greece and Portugal. In fact, the continuous revaluation of the euro worsened their budget imbalances after 2000, increasing their public debt. A positive association between the rate of exchange and budget imbalance was found for both countries. After the debt crisis burst, both countries found themselves without access to capital markets and had to resort to IMF/EU bailout packages in an attempt to stabilize their public finances.

In 2007, Italy’s general government debt to GDP ratio was 103.1, second only to Greece, and well above the 60% Maastricht criterion. However, nobody worried at that time for the Italian public debt and the Italian government had no problem in refinancing it. Moreover, it only increased 15% between 2007 and 2010. Therefore, the Italian debt crisis is a clear example of the change in humor in financial markets after the American financial crisis.

The announcement by the President of the ECB, in mid-2012, that the ECB would become the euro-zone's lender of last resort by starting to purchase the sovereign bonds of the area's stricken economies calmed the waters, allowing European authorities to buy time to figure out how they could get the area out of the debt crisis. On top of this, a new European Stability Mechanism was created to replace the European Financial Stability Facility and the European Financial Stabilization Mechanism. This offered bank recapitalization packages directly to the financial sector, rather than doing so via national treasuries as in the past with existing EU funding programs. In parallel, a Single Supervisory Mechanism was established for the oversight of credit institutions.

However, as stated above, what has not been done before in the form of resource transfers from the richer to the poorer countries of the euro-zone has to be done now in the way of helping these countries restructure their debts. There is no other way out of the crisis.

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IMPACT OF INSTITUTIONAL INVESTORS ON FINANCIAL MARKET STABILITY: LESSONS FROM FINANCIAL CRISIS

JEL classification: G12, G22, G23, G24, G28

Abstract

Institutional investors are seen as key investors on the financial market, crucial market makers, supporting market liquidity and activity, as well as important pillars of pension systems and for maintaining financial stability. Institutional investors, mostly pension funds and insurance companies, were considered to have a positive effect on financial stability because of their long-term investment strategy and funding. The recent financial crisis and its impact on financial market stability revealed serious systemic risk and interconnections between movements on financial markets and institutional investors' investment behaviour. Their investment policy, outflows and fire sales on the financial market had a great impact on market stability and deepening of the financial crisis. The purpose of this paper is to analyse the impact of institutional investors on financial market stability in the aftermath of financial crisis. The research will point out lessons learned from the financial crisis and point at key initiatives and necessary improvements in the field of institutional investors.

Keywords: *institutional investors, financial market stability, financial crisis*

1. INTRODUCTION

Institutional investors represent specialised financial institutions which mobilize and manage savings of individual investors and institutions and invest on financial markets, depending on their risk profile, aims and investment horizon, all with the aim to increase investment value. Institutional investors are considered to be: pension funds, insurance companies, different types of investment funds and hedge funds. They perform significant functions for the economy and financial system as a whole, ranging from allocation of funds to being pension savings providers and operating as actors positively influencing financial market development. Institutional investors, being long-term investors, have a positive effect on the financial stability and can also foster long-term economic growth and development. However, the crisis revealed many flaws of the regulation and the market of institutional investors. Some of these are: herd behaviour of institutional investors, fire sales on the financial market, outflows, short-term approach to investment, business and regulation, regulatory oversight and hazardous behaviour of certain institutional investors.

The financial crisis encouraged numerous regulatory discussions and changes, whose aim was to reform financial system regulation and supervision in order to achieve financial stability, decrease systemic risk and avoid procyclicality. Microprudential regulation is in the process of reregulation from changes in regulatory requirements in the banking sector to ones in the sector of institutional investors and financial market. New initiatives emphasize the importance of institutional investors as long-term investors and economic growth as the final goal.

The article points out the influence of the financial crisis on institutional investors and financial market stability, together with the contribution of institutional investors to the development and transfer of the crisis. Key regulatory initiatives and other market initiatives are considered and suggested. The paper consists of six parts. After the introductory notes, the second part reports on the importance of institutional investors for the entire economy and financial system. The third part considers the theoretical framework and the connection between institutional investors and financial stability, primarily financial market stability. The fourth part problematizes the financial crisis and institutional investors' behaviour, while the fifth summarizes key conclusions and initiatives spurred by the financial crisis for the part of institutional investors and financial markets on the European Union level. The conclusion gives findings and further guidelines.

2. IMPORTANCE OF INSTITUTIONAL INVESTORS

Institutional investors represent specialised financial institutions which mobilize and manage savings of individual investors and institutions and invest on financial markets, depending on their risk profile, investment strategy, in order to increase investment value. The advantages of retail investing into institutional

investors are seen in diversification of their investments, competent risk and assets and liabilities management, reduced information asymmetry and cost efficiency. Due to these advantages, institutional investors represent key investors and creators of liquidity on financial markets, especially prominent on capital markets (Davis and Steil, 2001, p.12). The importance of institutional investors for the financial system and economy in whole can be measured by indicators that put in ratio the assets of institutional investors and other economic or financial variables.

The significance of institutional investors in total financial institutions' assets differs among financial systems themselves. It is exactly the share of institutional investors that indicates the type of financial sector, being either bank-based or market-based. Numerous researches investigated the influence of financial structure on economic growth, among others Gerschenkron, 1962, Stiglitz, 1985, Allen and Gale, 1999, Levine, 2002, Demirgüç-Kunt and Levine 2004, Arestis et al. 2005 (Arestis et.al., 2005, p.1). The total financial system development is strongly related to economic growth, but there are no indicators pointing to the superiority of either the bank-based or the market-based financial system (Levine, 2002, p.398).

The total assets of institutional investors globally were around 85 trillion USD at the end of 2011 (OECD, 2012, p.4). Assets under management of pension funds accounted for 30 trillion USD, 24.5 of insurance companies, 23.5 of investment funds, 4.8 of sovereign wealth funds, 2.6 of private equity funds and 1.8 trillion USD of hedge funds (TheCityUK, 2012). Institutional investors represent the most important group of financial institutions in the USA. Their share in the total assets of all financial institutions was almost the half of total assets (44%) in 2010. At the same time, the share of depository financial institutions was 27.1%. In 2010 investment funds were the most important group of institutional investors with the 18.4% share; pension funds had a 17.1% share, while insurance companies had an 8.5% share in the total assets (FED, 2012).

In the bank based systems of Japan and the European Union, institutional investors are the second most important financial institution. In the Japanese financial system, banks are dominant with the share of 58% in total assets of financial institutions in 2010 and a share of institutional investors was 22%. The most important group of institutional investors in this period were insurance companies with a 14.1% share, while pension and investment funds did not have such relevance with a 4.6% and 3.3% share (Bank of Japan, 2012). In Croatia, during the same period, institutional investors had a total share in the assets of the financial sector of 15.5% and as a share of GDP 24.3%.

Investing in institutional investors is the most important form of savings of households, with the exception of Japan, where investing in cash and deposits was seen as more important. In the USA, investments in institutional investors made around 42.6% of total household assets, 31.7% in Japan and in the Euro area 38.3% on average and 24.1% in Croatia at the end of the 2nd quarter 2011. During the financial crisis assets of households, in part, were transferred into banking deposits as a safe and insured financial product. Different researches also

confirm the fact that investing in institutional investors is a dominant form of household investments, see Davis and Steil, 2001, Guiso et al., 2002, Davis, 2003, BIS and Committee on the Global Financial System, 2007 and Nakagawa and Yasui, 2009 (BIS, 2007 and 2009). The key components within institutional investors represent investments in pension funds and insurance companies, as a form of long-term pension savings. The assets of institutional investors as a percentage of GDP for OECD countries were on average 162.6% for 2005 (Gonnard et.al, 2008, p.6).

3. INSTITUTIONAL INVESTORS AND FINANCIAL STABILITY – THEORETICAL FRAMEWORK

Financial stability is manifested through undisturbed functioning of all segments of the financial system in the process of allocation, risk assessment and management, payment system and resilience to sudden shocks. Financial stability is based on the trust of financial markets' participants and significantly depends on cyclic fluctuations in their behaviour and expectations. Since financial crises result in great economic and social costs, maintaining financial stability is seen as public good and as an important goal of economic policy (HNB, 2010, p.3).

Allen, W.A., Wood, G. define financial stability as a state of affairs in which episodes of instability are unlikely to occur, therefore the fear of financial insecurity does not influence economic decisions of households or companies. Financial instability is also defined as a state in which prudently managed households and companies encounter sudden financial difficulties and with unavailability of means of payment, leading to decreased aggregate consumption, which for authors is a proof of an existing financial crisis (Allen and Wood, 2006, p.152-172).

National committees for macroprudential regulation have been responsible for achieving and maintaining financial stability. Financial stability is closely related to financial system's efficiency as a key prerequisite for efficiency of the entire economy. *Financial Soundness Indicators* or other new indicators and measures of macroprudential regulation are used to measure financial stability.

A detailed analysis of the influence of institutional investors on financial stability should re-examine financial stability indicators and estimate to what extent they influence business activities of institutional investors. Financial stability indicators do not give great importance to institutional investors, more important; they put no emphasis on them. They are indirectly included in indicators of other financial institutions through ratio of other financial institutions' assets and financial system assets and with other financial institutions' assets and the GDP. Indirect significance of institutional investors is also seen in financial market liquidity indicators, where they play a crucial role as liquidity creators through market institutionalization. Diversity of forms of institutional investors, long-term nature of their funds, long-term investment horizon and strategy, willingness to take risks are all characteristics which should

have a stabilization effect on financial market conditions (Davis and Steil, 2001, p.255).

Institutional investors are also an important development and stability factor for capital markets. This fact anticipates the expected positive effects of institutional investors' investments on:

- financial market liquidity,
- savings mobilization, efficient investment allocation together with development function of economy,
- contribution to market efficiency and reduction of transaction costs, improving arbitration processes,
- decrease of information asymmetry using information analysis and risk management, consequently reducing risk for individual investors (Levine, 1997, p.691).

Institutional investors also reduce exposure of the financial sector to bank intermediation, enhance financing and capital market development consequently resulting in more efficient corporate governance (Croce et al., 2011, p.5).

The growth of institutional investors' assets together with their share in total trade on financial markets resulted in financial market institutionalization, often perceived as a disadvantage. Financial market institutionalization influences: fees for trading on the financial market, block trade, financial market organization, existence of settlement system and price volatility of securities. Theories differ on the influence of institutionalization on price volatility of securities. While some consider block trade spurs volatility, others say institutionalization increases liquidity and financial market efficiency. Davis, E.P. and Steil, B. analysed G7 countries and found that developed systems (measured by the share of total assets of financial sector in GDP) had more institutionalized financial markets. Greater institutionalization of the financial market results in higher share of stocks in total financial assets, while statistically significant connection of institutionalization level and financial market volatility has not been detected. In a stable environment on the financial market, institutional investors should ensure and accelerate achieving securities prices corresponding to their fundamental value. The above mentioned should be accomplished, since institutional investors have and process existing information, but also lower transaction cost (Davis and Steil, 2001, p.233). Development of institutional investors and financial market is closely connected. Markets with a higher indicator of institutional investors' assets as a share of GDP are characterised by a more developed and liquid financial market. This leads to the conclusion that institutional investors can have systematic significance for an efficient functioning of the financial market.

The influence of insurance companies on financial stability was analysed by the Geneva Association and the European insurance and reinsurance federation – Insurance Europe. Insurance Europe points to different roles of banks and insurers in the financial sector and to a different influence of the crisis on

each of these institutions. The key differences in business activities of banks and insurers are: differences in conduct of business, sources of funds, balance sheet structure, liquidity risk, risk takeover and transparency, cross-sectoral interconnections, volatility, assets liability management and portfolio management. The differences between banking and insurance business are emphasized by the analysis of the Geneva Association, which points to a less significant influence of insurers and reinsurers on systemic risk and the entire financial stability.

However, the Geneva Association considers that activities like assets management and other financial services of insurers can be relevant for financial stability and have significant systemic risk. The key advantage of insurers is a different risk exposure, long-term constructional component of insurance policy and a long-term investment strategy, which acts as a stabilization factor for the financial system and market during periods of crisis (The Geneva Association and CEA, 2010). Similar conclusions can be made for other institutional investors, providers of financial products of voluntary pension savings, primarily for pension funds and some other types of investment funds.

4. FINANCIAL CRISIS AND INSTITUTIONAL INVESTORS' BEHAVIOUR

The Bank for International Settlements distinguishes five phases of crisis with different intensity. The first phase refers to the period from the beginning of June 2007 to mid March 2008, characterised by liquidity problems, bank losses and write-offs caused by non-performing subprime loans, which led to assets prices meltdown on the financial markets. The second phase, from mid March 2008 to mid September 2008, was characterised by growing problems with financing and solvency of certain business and investment banks and a threatening danger of bankruptcy for the mentioned institutions. Lehman Brothers investment bank went bankrupt on September 15th, 2008 and marked the beginning of the third and most intense phase of the crisis. The third phase lasted till end October 2008 and was characterised by the fall of stock exchange indexes and growth in costs of money, disinvestments, widespread illiquidity and lack of trust among financial intermediaries and other participants on the financial market. The trust was partially restored by the intervention of developed countries' governments together with the financial aid and liquidity funds. The fourth phase, from end October 2008 to mid March 2009, was marked by the adjustment of the financial market and its participants to the bleak surroundings and uncertainties concerning the effects of interventions on the financial markets of developed countries and the entire economy. During the fifth phase, which started mid March 2009, financial markets reflected signs of optimism, despite negative signals, macroeconomic environment and uncertainties connected to the end of economic and financial crisis (BIS, 2009, p.16-17).

During the financial crisis, stock exchange indexes plunged worldwide between 40% and 70% in 2008 and gradually recovered after March 2009. Trading volume of shares plummeted on the world financial markets in 2008 and 2009, except in the USA, where it grew in 2009. The market capitalization of companies listed on the stock exchange as a percentage of GDP on the world level in 2008 lost more than half of its value and was only 58.6%, while in 2009 it recorded growth, to 80.8% of the GDP (WB Data Catalogue, 2012).

The trends and influence of the crisis on capital markets had a unique effect on the fall of stock exchange indexes and market capitalization in 2008, with a following recovery in 2009. Institutional investors have strongly contributed to these trends on the capital markets. Investment policy of these institutions and repositioning of portfolios during the crisis, accounting standards and “fair value”, together with investors' behaviour, who, due to fear and mistrust, withdrew their funds, had a negative effect on the entire financial market and financial stability.

According to the OECD's analysis, pension funds' assets recorded investment losses, due to fall in asset value in 2008, in the amount of 3.5 trillion USD, while in 2009 they had a growth in assets of 1.5 trillion USD. Pension funds in the OECD countries had negative returns of -21% in 2008, while in 2009 they recovered to a positive 6.6% (OECD, 2010, p.3).

Though the short-term impact is extremely negative, pension funds, as long-horizon institutional investors, should be evaluated over a longer period of time. In the time frame of the last 15 years, till October 2008, the average annual returns of pension funds were around 6.1% in the USA (OECD, 2008). The same conclusion is shown in chart 1.

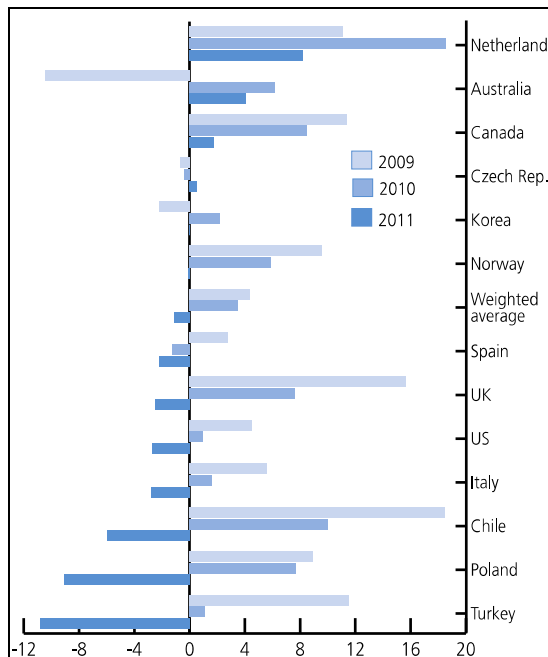


Chart 1: Real rates of return of pension funds in some OECD countries in percentage rates
 Source: TheCityUK, 2013

The crisis influence on insurance and reinsurance business activities was strongly reflected in: the fall of premium income, investments and change in investment portfolio, the fall in investment profitability and total profitability, significant losses on specific insurance lines, exposure to “toxic” financial assets and non-traditional activities (OECD, 2010 and Liedtke et al., 2010).

The research and analysis of the Geneva Association and the Insurance Europe emphasize that insurance sector was not the origin of the crisis nor did it contribute to it with its business activities, consequently resulting in a weaker impact of the crisis (Liedtke et al., 2010). The insurance sector was not the key recipient of the financial support either. During the crisis, government and central banks of the G20 countries have, directly and indirectly, helped the financial sector with 10 trillion USD, out of which only 10 billion USD went to the insurance sector (CEA, 2010, p.3). When taking into consideration the fall in premium income, investment losses and reduced profitability, financial crisis did have a strong effect on the insurance sector, as well as the rest of the financial sector. Changes in investment policy and new regulations of these institutions have further deepened the crisis on the financial market. Contractual component of life insurance policy and its long-term saving have prevented more significant outflows from this sector.

Investment funds were the most exposed to the crisis influence due to the nature of their business activities. The investment funds' assets recorded a worldwide downfall of nearly -30% in the period from end 2007 till end 2008. At the end of 2007, this fall amounted to 26.1 trillion USD and 19 trillion USD by end 2008. Their assets again grew at end 2009 and beginning 2010, recording 23 trillion USD at the end of the first quarter (TheCityUK, 2010, p.3).

The structure of investment funds according to investment strategy has changed significantly. Stock and mixed types of investment funds have lost importance and their share, while money market funds in the period of crisis grew. In 2008, investment funds recorded significant outflows causing portfolio management difficulties, but also having a negative effect on the financial market as a whole (EFAMA, 2011, p.3-4). The total net assets of the UCITS investment funds in the EU were reduced by 26.4% in 2008 and net capital outflows were -356 billion Euro, while only money market funds had net capital inflow (EFAMA, 2011). These trends on the example of investment funds in the EU are shown in chart 2.

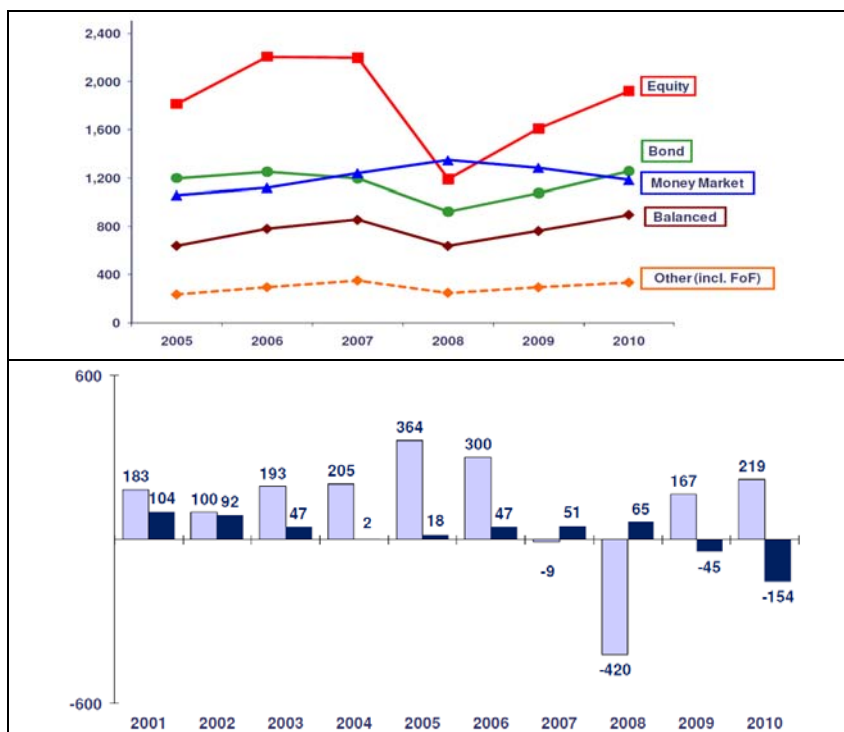


Chart 2: Assets and net outflows from investment funds in the European Union, in billion Euros

Source: EFAMA, 2011, p.3-4.

In 2009, the number of investment funds in liquidation process in the USA was higher than the number of newly established funds, being also one of the consequences of the crisis. The number of newly established funds was 457, 824 had exited the market, 488 was going through the process of fund liquidation, while 336 were merging with other funds (ICI, 2010, p.15).

The financial crisis has revealed shortcomings and the true character of business conduct, regulation and institutional investors' behaviour. The crisis demonstrated that institutional investors, as well as the rest of the financial sector acted procyclically (Croce et al., 2011, p5). The key characteristics of this kind of approach were: short-term approach to business and investments, herd behaviour, disinvesting on capital markets, inadequate inclusion and prediction of market changes. Additional stimulus to the crisis came from fire sales and outflows from investment funds and other institutional investors, to a smaller extent. The responsibility for this kind of consumer behaviour can be found in an inadequate level of investment protection of institutional investors, lower risk tolerance and still insufficient financial literacy.

5. LESSONS AND INITIATIVES AFTER THE FINANCIAL CRISIS

The regulatory framework and the supervisory architecture of the EU financial system were altered focusing on **macroprudential regulation** and improvement of microprudential regulation and supervision. Three new European agencies were established in the beginning of 2011 – European Banking Authority, European Insurance and Occupational Pensions Authority, European Securities and Markets Authority and European Systemic Risk Board. The new supervisory architecture wanted to restore confidence in the financial system and supervise financial institutions more efficiently. Special emphasis was put on achieving and maintaining financial stability as the fundamental goal of macroprudential regulation.

As concerns institutional investors, macroprudential regulation should ensure stability of, primarily, capital markets, point to the danger of creating “bubbles” and establish warning signals for financial crisis, but also act as a manager at the onset of a crisis. The framework of macroprudential regulation, instruments and indicators are still in the beginning phase (Stojanovic and Kristo, 2012).

On the level of **microprudential regulation** the process of forming new Solvency II regulations is still an ongoing process in the insurance sector. It started back in 2002, with the first phase ending in 2009, with the adoption of the Solvency II directive 2009/138/EZ. Current disputes are connected with the Omnibus II directive which should complement Solvency II directive for the authorities of the European Insurance and Occupational Pensions Authority. In order to implement full Solvency II regulation, Omnibus II and level two and level three measures, together with supervisory guidelines and technical standards, have to be adopted. Solvency II introduces risk based regulation into

the insurance sector and significantly tightens capital adequacy calculations, risk management and consumer protection. Solvency II should come into force in the beginning of 2014, probably in a reduced form (HUO, 2013, p.27).

European Insurance and Occupational Pensions Authority sent its final proposal on the new regulation for occupational pension funds at the beginning of 2012. When revising the directive on occupational pension funds, the European Commission has expressed intention to improve the single market of financial services for occupational pension funds, to ensure their business activities among member states, develop risk based regulation of these institutions and ensure identical business conditions among financial institutions (EIOPA, 2012).

Regulatory provisions of the UCITS investment funds are in the process of reshaping; therefore the proposal for the new UCITS V directive was issued by the European Commission in 2012. The goal of the new Directive is to improve safety for investment funds' investors and improve integrity of the financial market (ECB, 2012). There is a strong concern about the short-term approach and the problem of herd-behaviour concerning Solvency II regulation (Rohde, 2011, p.4), but also about the amendments to occupational pension funds regulation.

The regulation of Credit rating agencies and financial market infrastructure is also being reshaped. The regulation of Credit rating agencies needs to be improved in order to increase their reputation and market competition, their role in regulatory requirements of other financial institutions, to define a model of payment of their services and reform their conduct of business (Pavkovic and Vedris, 2011, p.22-24). Regulatory reform of OTC derivatives market are based on more efficient rules on trading and issuing derivatives, market infrastructure, settlements and standardisation, managing systemic risk and regulatory arbitrage (Pavkovic, 2013, p.90). The securitization process and securitization market needs new rules and enhanced market discipline as well. Liquidity risk was also underestimated, including problems in financial institutions' risk management and in the systemic oversight (Kordic and Pavkovic, 2011).

Achieving economic growth once again and channelling institutional investors' assets into **long-term investments** is one of the essential strategic initiatives of both the European Commission and the OECD. The European Commission issued the Green Paper on the long-term financing of the European economy (EC, 2013) in March 2013 and stimulated the debate and creation of the new strategic framework. At the same time, the OECD and the G20 countries started a project called Institutional investors and long-term investments in May 2012.

To improve and encourage institutional investors to long-term investments, it is necessary to reform the regulatory framework of institutional investors, encourage more active approach to investments and more active shareholding, ensure state support for investing into long-term projects, assure adequate education and consumer protection (Croce et.al., 2011, p5). Investments of institutional investors into long-term development projects using capital market would ensure additional stability for the financial market, since long-term

approach to investments would have a stabilizing effect in times of crisis and instabilities.

Improvements in **incentive framework** of institutional investors' business conduct refer to enhanced consumer protection and financial education, forming additional sector guarantee mechanisms or guarantee schemes, ensuring liquidity and stable infrastructure of the financial market, forming an incentive framework by the government as regards investment climate, debt policy and tax incentives for voluntary pension savings. An important issue is also a more significant involvement of institutional investors in corporate governance and improvement of corporate governance practices (OECD, 2011).

In **Croatia**, these incentives are still not being recognised. A body responsible for macroprudential regulation has not yet been established and that is the first step towards building a framework of macroprudential regulation in Croatia. As for microprudential regulation Croatia will comply with new regulatory requirements in the European Union and being a member state will be in a position to contribute to creating new regulation. The long-term benefits of the investment policy of institutional investors have to be emphasised especially due to the specificities of the mandatory second pillar pension funds in Croatia. Other incentives from consumer protection, financial education and tax incentives to pension savings are at an initial phase.

6. CONCLUSION

Institutional investors are a significant segment of the financial sector and the economy as a whole. The recent financial crisis has strongly influenced their profitability, investment policy and pointed to the herd-behaviour. Investors holding portfolios in institutional investors have also reacted by outflows and disinvestments. This significantly influenced the stability of the financial market, resulting in shortage of liquidity during the crisis, fire sales and inability of the financial market to fulfil its basic functions of transferring and allocating financial means. However, the commitment to redefining bank regulation was dominant shortly after the crisis, as well as forming macroprudential regulation, mostly bank oriented. Recently, the importance of institutional investors has been emphasized together with their mediation in channelling long-term investments with the aim to achieve economic growth. Macroprudential regulatory changes have been intensified for all types of institutional investors, as well as measures to improve market environment, financial education and consumer protection. As regards macroprudential regulation and the importance of institutional investors further steps have to be made in order to develop analytical framework testing the influence of institutional investors on maintaining financial stability. The paper discusses key areas essential for improving the sector of institutional investors. Some of these initiatives have been implemented, while others still await their implementation on the EU level. Therefore conclusions and recommendations in this paper can be useful as guidelines for creators of economic policies and financial sector regulation in Croatia.

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**FINANCIAL MARKET AND THE POSSIBILITY OF
ENTERPRISE FINANCING
IN AN UNDERDEVELOPED MARKET
AN EXAMPLE FROM ECONOMIC PRACTICE**

JEL classification: M19

Abstract:

For a company's success in doing business (success in the market), the management capability is the most important factor, as well as other internal values and a series of environmental conditions, whether domestic (national) or foreign (international). Enterprises from developed countries with established social and economic systems, have surpassing advantages compared to the enterprises from underdeveloped countries where there is no modern system of market economy. In comparison to the situation in developed countries. Bosnia and Herzegovina is one of the countries at a very low stage of development, where there are only few or no laws, or if there are, they are not well implemented (they are not valid or functioning). It is the same with other rules and norms as well as with the state (and situation) of financial market functioning. However, apart from these and a number of other limitations, there is a chance for success, for financing and development, for ensuring business funds and investing in progress, which has been shown and proved by a specific practical example, by investing in enterprises SM and PE.

Key words: financial market, long-term sources of finance, equity and debt securities

1. INTRODUCTION

Financial market is important for economic development because it includes economic entities that acquire financial assets for financing their business activities. Therefore, it is also an integral part of the entire financial system wherein commercial banks and the banking system have their own position and role. Financial market is a part of the financial system comprised of “a number of institutions, markets, individuals, regulations and techniques which are bought and sold with securities, and its main function is the transmission of assets from surplus to scarce savings sector, that is, ensuring assets for financing investments in capital goods and short-term assets (Vidučić, 2004. p. 63.) Financial market (german: finazmarkt) can be defined in various ways and from many standpoints. For some, it represents “places, people, instruments, techniques and flows which enable the trade of cash surplus and deficits, that is, cash, capital and foreign exchange; for others it is a space wherein supply and demand of financial assets meet, whereas for someone else it is a conglomerate of special kinds of businesses and institutions which appear in the area of supply and demand” (Raiffeisen Consulting d.o.o. 2013.). Financial markets are the markets for trading financial instruments, documents which incorporate the holder’s (a party having or owning the documents) income or assets claims from the issuer, nonfinancial companies, financial institutions, households or the government, and they present a liability for the issuer” (Vidučić, 2004. p. 67.). In practice, there are many markets: stock market, bond market, government securities market, credit market, options and futures markets, markets of claims from credit cards, from leasing deals, markets of export claims, cash market, capital market, primary and secondary markets, stock market, OTC market etc. (Raiffeisen Consulting d.o.o. 2013.). A financial market is where the demand and supply of financial assets meet. Entities that have surplus financial assets (and are willing to sell) make them available, by a means of loans or shares, to entities which need them (and are willing to buy) in order to do business. Financial market is important for economic development because it includes economic entities that gain financial assets for financing their business activities and therefore, it is also an integral part of the entire financial system wherein commercial banks and the banking system have their own position and role. This provides extra possibilities for economic entities to use debt-based financial assets besides banking ones, as well as using a number of possibilities, advantages and benefits of such a way of financing, besides those provided by banks and other financial institutions. In this way, financial markets have a significant function in the development of economic entities and the entire economy, as well as in increasing economic activities and gross domestic product.

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economic development because it includes economic entities that gain financial assets for financing their business activities and therefore, it is also an integral part of the entire financial system wherein commercial banks and the banking system have their own position and role. This provides extra possibilities for economic entities to use debt-based financial assets besides banking ones, as well as using a number of possibilities, advantages and benefits of such a way of financing, besides those provided by banks and other financial institutions. In this way, financial markets have a significant function in the development of economic entities and the entire economy, as well as in increasing economic activities and gross domestic product. In the narrow sense, “financial markets are organized places wherein financial assets and financial instruments are traded, and in the broader sense, financial markets exist wherever financial transactions occur” (BiH fondovi 2013.).

Entities that *own surplus financial assets* save those assets and put them available for those who need them, or they invest them in financial institutions and securities (instruments) in accordance with their business decisions, estimations and expectations, as well as income they plan to earn and other goals. Entities that **have insufficient financial assets** (but they need them) get indebted by financial institutions, banks and others, or they sell financial instruments they have at their disposal to acquire assets they need in order to undertake current business activities, or to invest according to estimates of cost-effectiveness and results of acquiring necessary assets. In this way financial markets have become a significant source for acquiring financial assets for business activities funding, and in some cases they have become more important than traditional banking intermediation, borrowing and lending the money.

Based on **trade items**, financial markets include: capital market, primary and secondary market, money market, foreign exchange market, derivatives market, and according to organization levels markets can be: organized (exchange) and unorganized, over-the-counter (PBZ Croatia Osiguranje obvezni mirovinski fond, 2013.). On the basis of the maturity period financial markets include money market and capital market. **Capital market** is a part of financial market where long-term securities are traded with the maturity of more than one year, and the securities traded are equity instruments (shares) or debt instruments (bonds). Money and short-term securities (with the maturity of less than one year) are traded on **the money market**, and the transactions are done between commercial banks. Economic entities acquire financial assets in this way which are needed for their liquidity maintenance, or for settling short-term requirements to provide funding for current business activities.

2. CAPITAL MARKET AS A PART OF FINANCIAL MARKET

The main task of financial markets, especially capital markets, is providing necessary capital for companies with the lowest possible costs (Orsag, 2002. p. 129) Financial instruments or securities are traded on the capital market, so one may say that capital goods, financial instruments and securities are all synonyms. There is a primary and a secondary capital market. The **primary market** includes the first appearance (issuance, flotation, incurrence or coming into existence) of stocks, bonds and other securities with the maturity of more than a year. Entities that issue them raise capital in that way, they gain money they need for undertaking business activities, for settling note payables and in most cases, for investment requirements. Issuers, entities that do initial public offering (IPO), perform it legally and use specialist experts' services for the activities which are usually in banks or other institutions dealing professionally with those activities, and banks are often main buyers of such securities or their distributors, if they are able to find buyers and sell the securities to them.

Further trading in those securities occurs in the **secondary market**, they are sold once or more times (resold) and they only change their proprietor. Floated stocks are usually traded for money, but there is a possibility of exchanging them for non-monetary assets and services (Gulin, 2002., p 157). Security holders need money before the maturity expiration of the settlement of available securities (bonds), or they want to sell their share in a company (stocks) which they do if they are able to find an adequate buyer willing to purchase under certain conditions (price and other). The fact that an investor in a security can earn money and use it even before its (a bond's) maturity and that it is possible to use the money invested in stocks whenever it is suitable, enables the assurance of investment in securities, increases assets mobility and supports liquidity, which is very important from the point of view of the development of a company or economy, which creates such possibilities and markets. That is why capital market is important and significant for overall economic development. It does not exclude the need for banks and banking institutions, but increases the efficiency of entire financial and economic markets. The secondary market has a greater significance than the primary, so in some cases the capital market is a synonym for the secondary market. The primary market is related to the securities issuer, whereas secondary market is associated with ownership, with the entities that bought securities and have them at their disposal.

3. LONG-TERM SOURCES OF FINANCE

On the basis of the characteristics of securities traded on the capital market, we distinguish equities and debt securities, securities that are related to ownership or debt. In a conceptual sense, stocks are mostly defined as equity (principal) securities which demonstrate the share of their holders in the capital

(principal or net assets) of corporations (German, Forgue, 2004, p. 502. Equities refer to ownership, that is, to co-ownership in a company. Typical examples of such securities are stocks, and they are related to certain ownership rights. Owners of stocks are people holding them, having them at their disposal, owning them, without any indication of the issuer (on the secondary market). They can buy and sell stocks like any other market participant, having no advantages or preferential treatment. When issuers float stocks, they sell their share in a company for money equivalent, as well as participation in allotment (by dividend), but they do not commit to pay back the invested money to anyone, nor they guarantee that investing in securities will pay off. Debt security (bond) issuers gather necessary financial assets and commit to the buyer to pay out the entire value of the security plus interest on a determined maturity date, which means that this is a debt relation that differs greatly from ownership relations.

3.1. Equities

A stock is equity, a written document or an electronic record that gives its owners certain ownership rights, and its buyer becomes a co-owner of a company, that is, a corporation. A share in a company is proportionate to the traded stocks in relation to the total amount of stocks of the company. By issuing stocks companies acquire financial assets from stock buyers, investors or financiers. Companies need them for financing current business activities and development, and this is always done when a company estimates that it this is a better way of acquiring assets than, for example, borrowing from a bank or other creditors. From this point of view, stocks are long-term instruments of financing a company; they do not have a maturity date and are free sources of finance because the capital raised in this way “costs the company nothing”. By selling stocks a company sells its ownership share and stock buyers become owners or co-owners of the company whose stocks they bought. The total number of stocks an individual has available, in relation to the total number of stocks of a company, determines the place, position and the role of the buyer, the co-owner of the company, the co-owner in the company’s management. Investment in a company’s assets provides conditions for making greater profit in future accounting periods, which increases stocks’ value, and dividend payout increases small investors’ interest in buying stocks, which also affects the stocks’ price rise. That is why in decision-making on distribution of profit it is always important to find an optimum relation between the profit which will be reinvested in the company and the profit which will be distributed by a means of dividends, from a long and short-term point of view (the decision is made by the company’s management, shareholders with the majority of the votes, on the basis of ownership or authority, if the other shareholders have authorized them to vote in their name). Traditionally, we distinguish two typical types of stocks, common or ordinary and preferred or preference stocks (Megis, Megis, 2008., p. 558).

Common stocks are the basic (“real”) equity securities and they differ from **preferred** stocks which give their owners a preferential position. Preferred stocks are issued (floated) for acquiring financial assets mostly when companies

do not want to change ownership structure. The owners of preferred stocks are given certain advantages, but they are limited in management (in some cases they have no rights in decision-making) and there are fewer preferred than the common stocks. Common stocks are basic instruments of corporate financing (Orsag, 2011., p. 631). Stocks, like any other securities, are tradable securities which means that at any given moment they can be cashed, change owners and reach adequate price which depends on supply, demand and other trade conditions, and this happens on the capital market, stock markets and other organized public markets. When the demand for stocks of a company is great, this reflects on their price which consequently increases, and in the cases when demand is lower than supply, stocks go down. The expected companies' business in the future is important here because stock supply and demand flow will depend on that, stock demand will increase if there is a belief that a company will successfully do business in future periods and vice versa. Since there is always an uncertainty when it comes to successful business (there is no absolute guarantee for a successful business), this fact affects supply and demand flow, depending on the level of uncertainty and the estimation of expected activities of shareholders and future investors.

3.2. Debt securities

Bonds are long-term debt securities, financial instruments used by a buyer (on the primary market) to lend an amount of money (stated in the bond) to an issuer, and the issuer commits to pay interest and the principal (within the maturity date) annually to the security holder (owner). This is a loan relation between the issuer and the buyer of the security, and it differs from traditional loan because a debt financial instrument can be bought or sold on the secondary market, so a bond can be considered a tradable credit. A bond **par value** is the price stated in it, that is, the amount of money which the issuer committed to pay to the bond buyer (at the maturity date), and the interest rate of the bond is called the **coupon** or **nominal interest** rate. Once determined, a coupon interest rate is valid throughout the whole defined period in the bond, and there are bonds whose interest rate is not fixed within its duration period (bonds with variable rate of interest) and bonds that pay no „traditional“ interest (pure discount bonds); it is originally sold for less than its face value, and the repayment of the principal is called maturity of a bond. Bond repayment can be single, when the entire principal (the bond value) is paid at once on the maturity date, or at determined intervals, semi-annual or annual (repayment at certain dynamics), and the usual interest payment is at semi-annual and annual intervals (at the bond issuing date, and it is determined according to general market conditions and interest rate movement).

Bond price is stated in the percentage of face amount of the bond, and indirectly as cost price in a money unit. If a bond's value is 1000 money units, its price of a 100 implies that a buyer must pay a 100% of the face value of the bond, that is, 1000. The price of 95 implies that 95% of the face value or 950 money units are paid, and the price of 105 means that 105% of the face value of the bond or 1050 money units are paid. When the bonds are trade under 100% of the price

(below the face value), they are traded at a **discount**, and if they are traded at prices higher than 100%, they are traded at a **premium**. Trading at a discount is when bond prices are lower than a 100% of its face value, and trading at a premium is when bond prices are higher than a 100% of its face value. Bond price depends on the demand and supply of such securities, and the movements of demand and supply depend on the trust in issuers, their rating and mostly on current market interest rate, so bond prices are related to the risk of variable interest rate. There is a great probability that bond prices on the capital market will go down if market interest rate rises and vice versa, that bond value will increase if interest rates drop, and such situations and tendencies have already become almost common in practice. As any other investor in securities, bond investors also consider the efficiency of their investments and compare them to expected benefits, incomes or profits, as the usual ways of stating benefits from bonds investment.

Coupon or nominal return of a bond is an interest determined in advance wherein the issuer commits to repay the buyer; this amount is determined at the issuing of the bond and is fixed until its maturity date (for a bond with the value of 5000 money units and 10% interest its owner will get 1000 money units annually, nominal or coupon yield). By buying bonds (investing in them) one expects a profit (or benefit) on the basis of face value (nominal interest rate) and on the basis of the price of the tradable bond, and that ratio is current yield. **Current yield** implies the market value of a bond and the amount of interest from the bond, and it shows the interest rate of the bond and of the return on invested assets in bond purchase.

$$\text{Current yield} = \frac{\text{Annual interest repayment}}{\text{Bond market value}}$$

Taking into account the fixed nominal interest rate until maturity date of a bond, as well as credits with variable interest rates which affect the variability of interest rates of new bonds, new bonds are issued with **higher or lower nominal interest** than the nominal interest of existing bonds. Since bond prices on the capital market are equal for old and new bonds (bonds with different nominal interest rate), the old bonds' prices are corrected and balanced with market interest rates. The ratio between current yield and nominal interest rate is different in situations when bonds are traded at a discount or premium, that is, if bond prices are lower or higher than the nominal ones. Current yield is higher than the nominal interest rate (nominal yield) if bonds are traded at a discount, and it is lower than the nominal interest rate if bonds are traded at a premium. If the bond market price equals its nominal amount, current yield is equal to nominal interest rate.

Bonds are distinguished according to a number of criteria. They can be entitled to its owner or issuer, there are bullet bonds or bonds repaid annually, bonds with fixed and variable interest, pure discount bonds, bonds with insurance (deposit, mortgage and similar) or without insurance (loan stock and similar), and there is a great importance in the difference between corporate and public bonds on the basis of their issuers, that is, whether they are issued (floated) by companies or the public sector (government bonds). Corporate bonds are issued by companies when they need financial assets and when those assets cannot be acquired from other sources, or when they estimate that this is the most efficient way of acquiring debt-based assets, when using banking and other assets is more expensive and when they do not want to disturb established ownership relations by issuing other securities (stocks).

From the point of view of issuers' companies, the advantages of raising capital by issuing bonds can be in the cost price of the raised capital, in relation to other possibilities (interest rates are mostly lower than in bank loans), in the fact that bond buyers do not intervene in a company's business or decision-making, the intermediary role of banks is avoided in acquiring assets, the procedure of acquiring assets (in relation to negotiations with banks and other financiers and activities within loan insurance) is made simpler, and besides this, great amounts of assets can be acquired by bonds from a great number of investors, financiers (bond buyers) without any special negotiations, unlike in the cases of other financial sources (banks and others). Different kinds of bonds are traded on active markets

Different kinds of bonds are traded on active markets (Vidučić, 2004., pp 174-176: mortgage bonds, loan stocks, convertible bonds, income bonds, indexed bond, floating rate bonds, Eurobonds, zero coupon bonds, bonds sold at par, junk bonds and others). The public sector bonds or government bonds are securities or long-term financial instruments which are issued by local government and self-governments (municipal bonds) and most frequently by a country's ministry of finance, but they can be issued by different government agencies and funds and that is why they are called government bonds. In most countries governments provide insufficient assets by issuing bonds. They need the assets for financing their requirements, for paying debts and budget deficits or for financing some other requirements (financing a war and after war renovation, the consequences of natural disasters etc.). Governments get into debt to settle previously taken loans. In such circumstances the goal of debt is not the reduction of the total amount of debt but to non-financing previous credits and the maintenance of debt in (acceptable and desired) relations towards gross domestic product. When a problem cannot be solved in a better or more acceptable way, when a government cannot balance its income and expenses by increasing taxes or by reducing public sector expenditure, and similar.

Governments go into debt because they have to, and when they do, they try to do it in the best possible and most efficient way. When it suits them, they go into debt on the basis of traditional credits on the domestic and international capital markets or they accept other available possibilities. Considering the long-

term feature of government debts, reasons for going into debt and the credibility of a debtor government, it seems there is no better, simpler or easier way of indebtedness than issuing bonds. This is the basic reason for the creation of bond markets in many countries of the world, and this market has stimulated the development of the entire capital and financial markets in those countries.

3.3. Loans

Credit financing is done by banks and other financial institutions which under certain conditions lend money (grant loans) to borrowers. Loans are granted on the basis of loan contracts, and the borrower commits to repay the entire borrowed amount along with determined interest (as a price for borrowed capital) according to certain dynamics and agreed-upon number of instalments. Loans are granted for longer or shorter periods so there are short-term and long-term loans. Banks also require a certain security and bad debt insurance in order to collect the agreed amount in case companies cannot repay the debt. Short-term loans are mainly related to solving problems of current ratio, for paying and settling obligations in current business activities, and long-term loans are mainly related to investment activities, expanding business activities or introducing new products, technologies or technological proceedings.

3.4. Other sources of long-term finance

Various instruments for financing long-term requirements of companies occur on developed capital and financial markets, such as preferred stocks, warrants and convertible stocks. Preferred stocks are equities, but they differ from ordinary stocks because they do not affect ownership when issued, nor they disturb established ownership structure. Owners of these stocks have the right to a fixed dividend (previously agreed-upon) and a conditional right to manage which means that these owners mostly do not participate in the management of a company, but they are given priority at dividend payout. They are the first to get dividends paid, followed by owners of ordinary stocks if there is any money left. For shareholders, a preferred stock has a debt characteristic, and creditors consider it a “pillow” of their own capita (Vidučić, 2004., p. 187). Preferred stocks can be cumulative, participating and convertible.

Cumulative preferred stocks give rights to payout of unpaid dividends within a certain period (usually in three years) and the possibility of swapping unpaid dividends with ordinary stocks, which also reduces the risk of investing in those securities. **Participating** preferred stocks offer holders the opportunity to receive extra dividends (a balance between ordinary and fixed preferred stock) in an unexpected profit of a company. **Convertible** preferred stocks offer holders to swap them with ordinary stocks, and they do it if the price of ordinary stocks increases on the market and if they estimate that this is a more profitable way.

Warrants are issued by companies, warrants being long-term option of purchasing a certain number of ordinary stocks at a determined price (specified or

strike price) during a determined period. **Options** are contracts that give owners the right to buy or sell assets (stocks) at a previously agreed-upon price within a certain period, and they are issued by investors. The **put option** give the option to buy ordinary stocks at certain price (a strike price), within a predetermined period, by a predetermined date or on a determined date, and **call option** offers right to sell ordinary stocks at an agreed-upon price (predetermined or strike price) on a predetermined date (*European option*) or within a predetermined period (*American option*). The right to sell and buy does not imply an obligation, and the option owner will decide on the best suitable way. The owner will act to gain the greatest possible profit.

Convertible securities can be stocks or bonds, and they are called like this because they can be transferred into ordinary stocks, they are issued (floated) with an option of transforming into ordinary stocks if this is suitable to their owners. These securities also have elements of debt and equity securities. By issuing or floating convertible securities, conversion from one security to another is determined, as well as the price and other transferring preconditions, maturity, coupon interest rate, call preconditions and others.

4. AN EXAMPLE IN PRACTICE, THE „PE“ COMPANY

4.1. The beginnings

In the late eighties and the beginning of nineties of the last century, social and political changes were very intensive in this area too, which caused the closing of all companies that were state-owned, except those which conducted public activities, the post office, electrical and public utilities, and as a consequence many people were left jobless. It was obvious that the old planned, autonomous system would not exist anymore and that most of the state-owned companies would become private, which meant that the fired people had to manage on their own to cover their expenses and provide for their families.

A group of four friends and colleagues decided to start a business and founded a company for trading plate, profiles and other materials from domestic and foreign markets (imported) intended for manufacture and personal usage. They used a family house with a yard as a business space and had no need to invest in new objects, very many assets were invested in small inventory (phone, fax and others), and the biggest problem was ensuring money for materials (goods) supply which they intended to trade: plates, profiles and other materials. They made a deal to invest 10,000 DEM (German marks, cca 5,000 Euros) each and to discuss new investments and deposits afterwards, depending on the development of the business. They could not get bank loans because banks (governmental) were run by directors appointed by the new government (chosen by the first democratic elections), and those banks granted available assets with approval of those who appointed them and there was no possibility to get loans

without having good political connections. The greatest demand and profit could be made by selling aluminium and other imported profiles (from Italy and others) and advance payments were required and great quantity discounts were given (price would have been at discount if greater amounts of goods had been ordered), which increased the need for working assets in order to use favourable market offers. The only possibility in such circumstances was borrowing from family members, relatives and friends, and pre-war situation did not serve these forms of indebtedness, especially for younger people (like the founders of the company) who were expected to be mobilized any day.

The after-war period („a time of neither war or peace“) lasted for a long time and it was not a good grounds for business results, but business was spreading and one could say that they advanced well, but the problem of insufficiency of working assets was not being solved until privatization of banks occurred. In non-privatized (former social, then government) banks there were not sufficient assets for those who run the banks (influential politicians and their supporters), and it was probably understood that borrowed assets would not have to be repaid, that they would be discharged or there would be some other form of freeing from liabilities. With the occurrence of private banks (at the end of the nineties of the last century) there was a possibility for companies to get loans, and it was a silver lining in solving problems of debt and insolvency the owners of companies had. For the first time, companies were in debt, and not individuals, and no matter the high interest being a burden to business, one could successfully do business, go into debt, order larger amount of materials, serve bigger buyers and expand the market. Private banks made it possible for this company to do business with foreign partners by approving letters of credit to acquire goods from abroad. This was impossible with some other banks in BiH because of their status of undefined ownership or rating problems in international banking circles. Foreign banks, whose clients were business partners from „SM“ company, did not accept guarantees or letters of credit from Hercegovacka Bank (they considered it a political establishment), Dubrovačka Bank and Glumina Bank which were in financial problems and at the beginnings of solvency proceedings, and all this resulted in big problems in business of the company when it came to paying and approving letters of credits to foreign partners.

Their successful business resulted in a very good market position as well as a great domestic market status and in the creation of a reputation of a good, reliable and desirable business partner. This consequently led to spreading of business not only based on material types but also spreading to other markets in neighbouring countries, especially among foreign partners they did business with. Moreover, modern business spaces were built and equipped with more than a million KM, and conditions for contemporary business were established, and so many found their interest in this: employees (about 15 permanent employees), business partners, buyers, suppliers and close and wider social community.

4.2. Mutual investments with a foreign partner

A long successful cooperation (more than 15 years) between “SM” and their foreign business partners “GP” resulted in the construction of a modern factory of aluminium profiles “PE” in ŠB, in which a foreign partner, as a majority owner (80%), invested millions of Euros. One of the reasons the foreign partner chose this location was the nearness of the aluminium factory in Mostar (EAL) which delivers aluminium logs, a material for the production of profiles.

The construction of the factory was completed within a deadline, and after the probation period, the factory engaged in a full capacity operation in three shifts and employs 90 people. The capacity of the factory is 8,000 tons of profiles. It sells approximately 10% of profiles on the domestic market, and 90% is exported to the EU countries, which is the best evidence of their products’ quality. A share of “SM” company in the “PE” company is 20%, and the money for investment of about a million Euros is ensured from the company’s assets, from profile buyers and (to a smaller degree) from bank loans. In discussions about mutual investment, the foreign partner insisted to be a majority owner, and owners of “SM” decided that they would participate in the joint company with 20% ownership; however, they could have owned 49%. The foreign partner did not want to include other entities in the “PE” ownership nor did they set any requirements to “SM” when it came to acquiring assets for the joint company.

The owners of “SM” did not want to sell their share in the joint company nor change ownership structure, but other companies and big buyers offered to **buy their shares**, that is, they could have sold some of their share and partly ensure money for investment in the joint company. They estimated it was more useful for the company to be indebted by a bank, and it especially suited them that a significant amount of money was lent to them by their business partners and big buyers, agreeing that their investment in the factory was returned through profiles produced by the factory. In this way, “SM” acquired “**free assets**” for financing their share in the joint company with the foreign partner, they did not sell nor reduced their co-ownership, and they ensured the selling of a part of profit that would be made in the new factory. The profile buyers found an interest in the secure supply of aluminium profiles, they lent available money with interest to their business partner, and the debt with interest would be settled by delivering adequate amount of profiles at valid market prices on the delivery date.

5. CONCLUSION

In the beginning the “SM” company had to use debt-based financial assets because there were no other possibilities, and there were periods when there were no options whatsoever, so they had to borrow from relatives and friends. Also, one could not sell stocks nor shares on an organized market because there was none, but they could have sold shares if the owners had

decided to do so no matter they were not a corporation or that they had no quoted stock on the BiH stock markets (in Sarajevo and Banja Luka). The company could not issue bonds, debt securities, because there was no market for them, and there were no assumptions (legal or others) that corporate bonds could be issued, but this was no obstacle for the company to acquire debt-based financial assets and to solve their problems with borrowed money from profile buyers (similar to borrowing by issuing bonds). The important thing is that there is an entrepreneurial spirit and business commitment, that market possibilities are realistically estimated as well as possibilities of successful business, that there are financing sources whose number is growing which results in greater opportunities for businessmen to find the best possible way of financing their business. When businessmen are successful, all is good for them, their employees, the government and the society whose economy is developed and unemployment is low without social problems.

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IMPACT OF BAD LOANS ON THE CAPITAL ADEQUACY OF BANKS IN CROATIA

JEL classification: G01, G21

Abstract

Despite of the economic and financial crisis, which was caused by the banking crisis, the condition of banks in Croatia is very good. According to the indicators, the banking system in Croatia is among the most stable in Europe. If the indicators of stability and liquidity of the Croatian banks are very good, the question is why there are economic problems of the real sector in such system. Analysis of bank balance sheet, the quality of their assets and claims, leads to other findings that speak of the apparent stability of the financial system. The problem is that the part of the assets of Croatian banks is contaminated and refers to the bad loans. Bank stability that results from the capital adequacy ratio is statistically very good, but high capital adequacy ratio of Croatian banks actually has no real cover. The research results confirm that high capital adequacy ratio is unrealistic and that refers to inadequate valorisation of assets of the commercial banks.

Keywords: capital adequacy, bank loans, financial stability

1. INTRODUCTION

Financial stability and high capital ratio have induced analytical research of relationship between financial and real system in which banks operate. Due to the excellent indicators of stability and liquidity of the Croatian banks, there is a question of economic and financial problems of the real sector in such system. High capital ratio shows that banks have enough funds and can follow the requirements of the real sector in the way that they encourage the production and

thus contribute to a faster recovery of the entire Croatian economy. Croatian banks' capital adequacy is the largest in Europe and is over 20% (Banks bulletin no.25, pp. 40). In general, "banks in relatively more developed economies enjoy significantly more stable funding" (Chalermchatvichien et al, 2011, 6). But, further analysis of the balance sheet of banks, the quality of their assets, leads to other findings that speak of the apparent stability of the financial system. The capital adequacy ratio is calculated as the ratio of total claims and own funds. When these items are placed in the ratio, calculation is really like that, but the problem is that the part of the assets of Croatian banks is contaminated and refers to bad loans. Such placements should be thrown out of the assets and according to that amount, banks should decrease own funds. In this case, the capital adequacy ratio of Croatian banks is not 20% but would be decreased to about 5-6%. The second problem is that the calculation of capital adequacy is made according to the Basel II accord, and Basel II doesn't include currency-induced credit risk. Due to the Basel II methodology, assets of Croatian banks that are influenced by currency-induced risks are treated as less risked than they are in reality (Banks bulletin no.25). The aim of this paper is to analyze the stability of the financial system in Croatia and to show that it is not stable as it seems. Bank stability that results from the capital adequacy ratio is statistically very good, but a high capital adequacy ratio of Croatian banks actually has no real cover. The research results will confirm that the unrealistic view of capital adequacy results from inadequate valorisation of commercial banks assets and changes in the methodology of calculating capital adequacy, which was adapted to Basel II accord.

2. THE DEFINITION OF CAPITAL ADEQUACY IN CROATIAN BANKS

Capital adequacy has the most important role in "long-term financing and solvency position" of banking system (Barrios, Blanco, 2003, pp.1935). For the last few years, before the crisis escalated, it was not so important that the amount of capital in commercial banks had small share in banks' resources. Capital serves to keep the bank from business failure and to increase the profit to the owners (Mishkin, 2007). If the claims and liabilities were managed so that the liquidity standards were satisfied, there was no threat of losses or bank bankruptcies. But after huge shocks in financial and banking sectors have occurred and made impact to the economy in the whole world, the big issue of capital adequacy has come out as the most important question for the bank managers and low regulators. According to the Basel II accord, minimum coefficient of capital adequacy is 8% (Jakovčević, 2003). Figure 1 presents the structure of liabilities of Croatian banks.

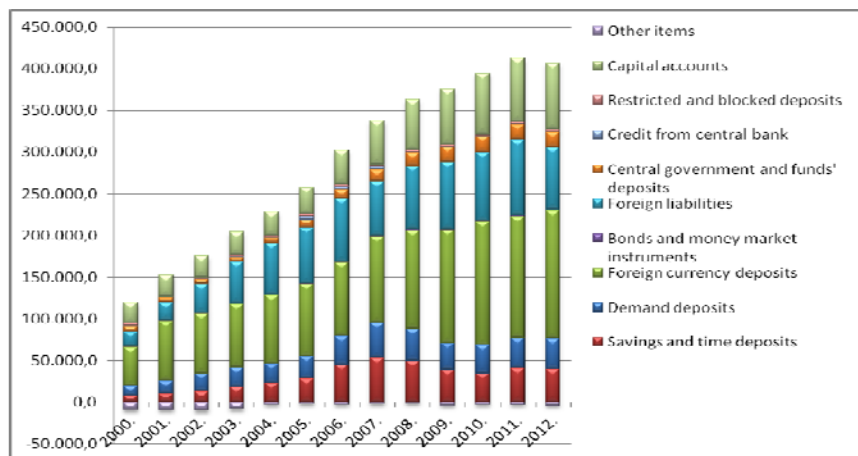


Figure 1: The liabilities of Croatian banks

Source: author according to the Bulletin – Statistical survey, D1: Credit institutions’ accounts, Croatian National Bank, no.19, March 2013.

According to the Figure 1 it could be noticed that the level of capital in Croatian banks is very high. The capital adequacy in 2012 amounted 20,17% (Banks bulletin 25, pp. 40) and it was among the highest in Europe what could be seen in the Figure 2.

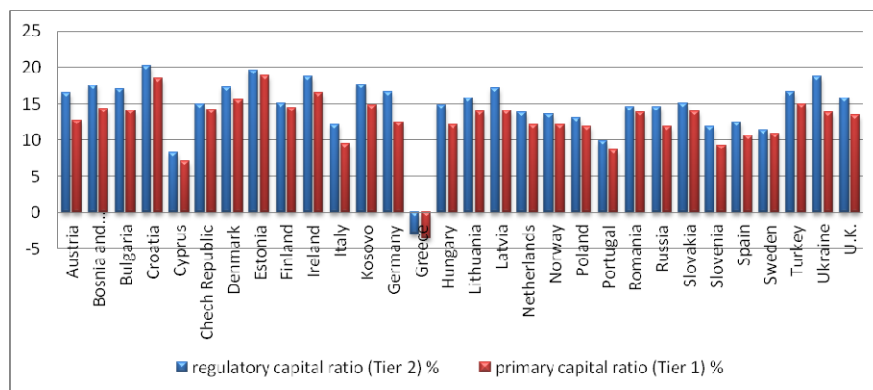


Figure 2: Capital adequacy ratio among some countries

Notes: The data for Figure 2 refer to periods 2011/Q4, 2012/Q1 and 2012/Q2. Different countries have difference of a few months in their report release.

Source: author according to the HUB Analize (2012). Povratak negativnih trendova uz iznimno visoku kapitalizaciju, 39/40, pp.3

Banks in Croatia have the best capital adequacy ratio, both Tier 1 and Tier 2. Tier 1 capital “consist of the sum of the following elements: common shares issued by the bank that meet criteria for classification as common shares for regulatory purposes, stock surplus resulting from the issue of instruments included Common Equity Tier 1, retained earnings, accumulated other comprehensive income and other disclosed reserves, common shares issued by consolidated subsidiaries of the bank and held by third parties that meet criteria for inclusion in Common Equity Tier 1 capital, and regulatory adjustments applied in the calculation of Common Equity Tier 1” (Basel Committee on Banking Supervision, 2010, 13). Tier 2 capital “consists of the sum of following elements: instruments issued by the bank that meet the criteria for inclusion in Tier 2, stock surplus, instruments issued by consolidated subsidiaries of the bank and held by third parties, certain loan loss provisions, regulatory adjustments applied in the calculation of Tier 2 Capital” (Basel Committee on Banking Supervision, 2010, 17). Very good capital indicators are result of strict policy of Croatian National Bank, but also these figures result from changes in methodology that were applied in year 2010 (Banks Bulletin no.25).

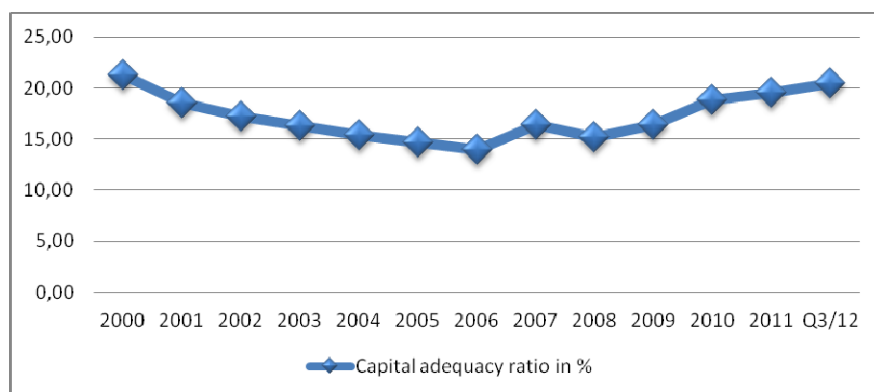


Figure 3: Capital adequacy ratio in Croatian banks

Source: author according to the Regular publications – 1st quarter 2013, Croatian National Bank, <http://www.hnb.hr/publikac/epublikac.htm>

Figure 3 shows that the capital adequacy ratio has been kept on high level for very long period. Strict monetary policy on one hand and recent changes in methodology of calculation on the other hand, have contributed that the capital adequacy of Croatian banks is on very high level. Concerning the different methods of calculation, Kretschmar, McNeil and Kirchner (2010) provided review of integrated models of capital adequacy and showed that both modular and fully-integrated approaches, can give different risk capital figure, although both methods are permissible under Basel II. Croatian national bank asks for

minimum of 12% capital adequacy ratio, although there is applied Basel II methodology that requires 8% capital adequacy ratio. As already banks must kept capital adequacy on higher level, changes in methodology in 2010 and decrease in the average credit risk weighting, have increased capital adequacy ratio of Croatian banks (Banks bulletin no.25,). Statistical increase of capital adequacy ratio can affect less risk averse banks and encourage them to more risk credit activity (Gehrig, 1995) and in reality statistically changed capital ratio has no real cover.

3. THE STRUCTURE OF ASSETS IN CROATIAN BANKS

The measurement of capital adequacy is an issue of monetary strategies and policies of financial sectors. It depends of monetary and administrative decisions of regulators and bank management. Capital adequacy ratio is directly connected to the quality of assets. On the other side, the structure of bank assets depends of the awareness of bank management of risk and according to that assigning a corresponding weight to the bank assets. The problem with risk awareness result from “conflicts of interest between debt holders and equity holders, and moral hazard arising from the combination of limited liability and government guarantees”, in the way that “financial institutions have a natural tendency to accumulate assets that are to risky and to hold too little capital” (Cecchetti, Kohler, 2012, 2). Observing assets of Croatian Banks, it could be easily mislead to wrong conclusion. The majority of claims are in sector of householding mostly financing buying houses and apartments. These loans are covered by collateral, and for banks there is very low credit risk. From that point of view, banks do not accumulate risky assets and they have enough capital to ensure solvent business. To understand the real situation and structure of banks’ assets, it should observe the structure of portfolio.

3.1. The problem of diversification in banks’ portfolio

Since 2003, banks in Croatia have changed their business strategies, and in 2003 households financing outgrew enterprises financing, what shows Figure 4. This was period of huge escalation in construction sector and housing.

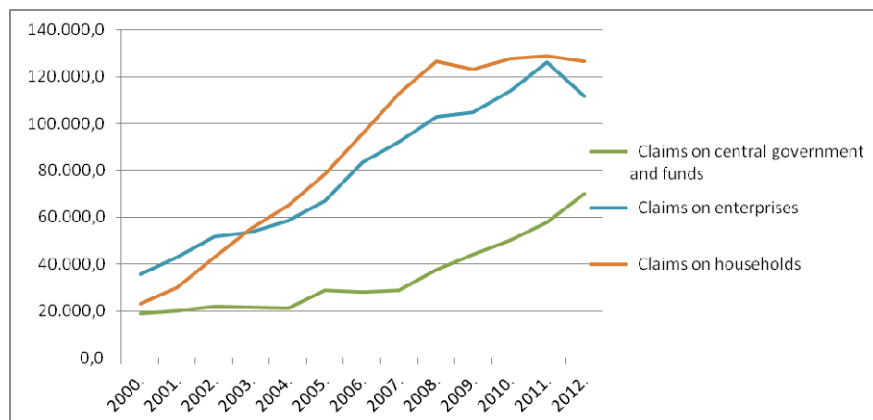


Figure 4: Structure of assets of Croatian banks according to households, enterprises and central government

Source: author according to the Regular publications – 1st quarter 2013, Croatian National Bank, <http://www.hnb.hr/publikac/epublikac.htm>

Figure 4 shows the range of huge credit expansion to households, what has been connected to houses and apartments construction. In first step banks had been financing constructors for building and in second step households for buying apartments and houses. In that way, banks could have earned from both sides, but also have exposed themselves to the bigger risk, because they have tied their liquidity in long-term only in one sector. Later, in few years, after the crisis escalated, the sector of construction and sale of apartments rapidly failed and banks in Croatia could suffer big losses if the market wouldn't recover quickly.

Although the monetary policy had been very strict according to the percentage of capital adequacy ratio, it couldn't affect the business strategy of banks management. The main reason for doubting in the efficiency of capital adequacy requirement is its static effects (Blum, 1999). Blum (1999) in his paper shows that regulators are interested only in reducing insolvency risk of banks and in the future that can cause reduction of bank's profit and increase the possibility of insolvency of the bank.

According to the increase of credit risk, over the years, there was increase of partly and fully irrecoverable loans. Figure 5 shows the trend of increase of claims in group B and group C, the most risky groups, and decrease claims in group A, the non-risk group.

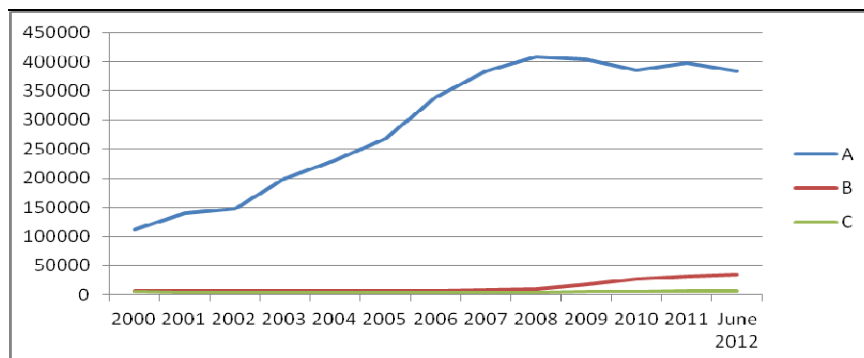


Figure 5: Classification of claims according to the risk groups

Source: Author according to the Bank bulletin, several numbers, available at <http://www.hnb.hr/publikac/hpublikac.htm>, [accessed 24.04.2013.]

3.2. The impact of currency induced risk on assets and claims in Croatian banks

Besides the problem of bad diversification of banks assets, the problem that reflects to the capital adequacy is the currency induced credit risk. As already mentioned, Basel II doesn't include currency risk. The problem in Croatian banks is that the most of household's loans were placed with foreign currency clause. Theoretically, that puts the claims and assets of Croatian banks on higher risk level then it was calculated according to the Basel II methodology. But, although the HRK is the lawful currency, the most of deposits are in EUR. As the volume and characteristics of deposits, capital and other resources determine the volume and characteristics of banks' assets (Lovrinović, Ivanov, 2009), according to the bank's policy, it is normal that the loans are issued in the foreign currency EUR also.

As it could be noticed from Figure 6 most of deposits are in foreign currency, specifically in EUR.

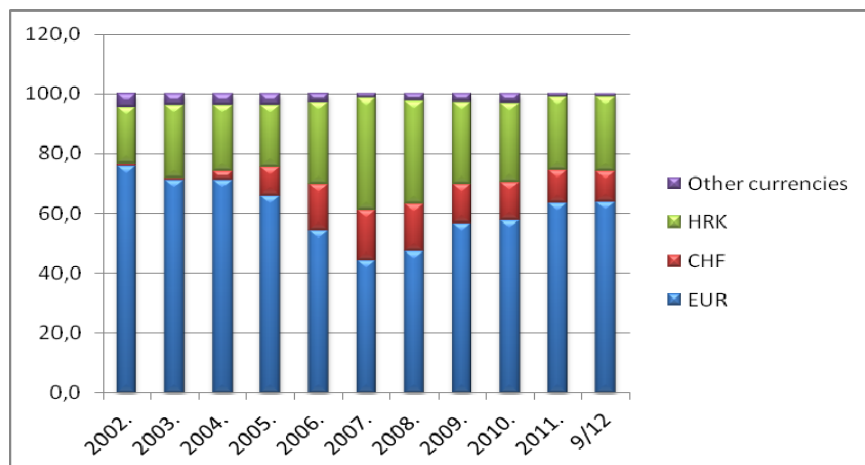


Figure 6: Currency structure of deposits in Croatian banks

Notes: Loans in foreign currency include loans denominated in that currency and loans indexed to that currency.

Source: Author according to the Croatian national bank, Regular publications – 1st quarter 2013, Currency structure of banks’ credits to private sector <http://www.hnb.hr/publikac/epublikac.htm>, [accessed 04.05.2013.]

Figure 7 shows currency structure of banks claims which shows that almost 160.000 mil HRK are placed as loans indexed to foreign currency.

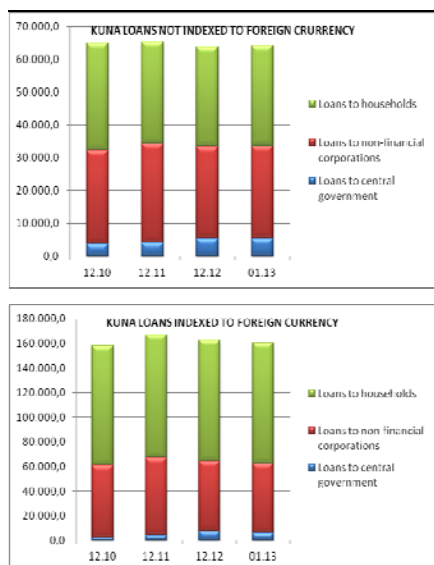


Figure 7: Kuna loans indexed and not indexed in foreign currency

Source: Author according to the Bulletin – Statistical survey, D5a: Distribution of credit institutions' Kuna loans by domestic institutional sectors, no.191, <http://www.hnb.hr/publikac/epublikac.htm> [accessed 04.05.2013.]

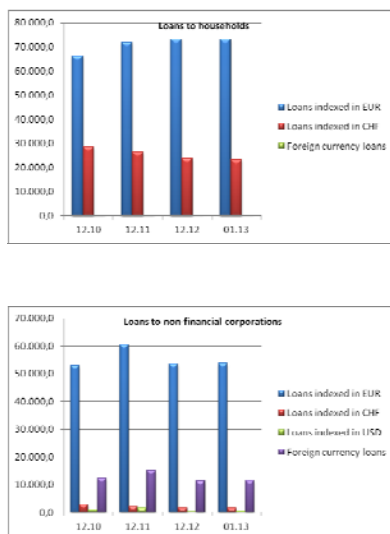


Figure 8: Distribution of credit by currency composition

Source: Author according to the Bulletin – Statistical survey, Table D5c: Distribution of credit institutions' loans to households by purpose and currency composition and Table D5d: Distribution of credit institutions' loans to non-financial corporations by purpose and currency composition, no.191, <http://www.hnb.hr/publikac/epublikac.htm>, [accessed 04.05.2013.]

Comparison of Figure 7 and Figure 8 shows that, both deposits and claims are in the same currency; in EUR. That means that for banks, there is very low level of currency induced credit risk because liabilities and claims are mostly in same currency. But on the other side, the households, that are mostly users of loans, receive their income in domestic currency HRK and this puts them in very high level of risk of currency changes.

4. THE ANALYSIS CAPITAL ADEQUACY OF CROATIAN BANKS

The analysis is made by using data provided by Croatian National Bank. The research is based on financial reports that provide Croatian National Bank, published in 2012 and 2013 year. The analysis refers on throwing out the bad assets of Croatian banks and calculating the real amount of capital adequacy ratio (CAR') according to the data gathered from Banks bulletin number 25.

The risk analysis is made using Value-at-Risk (VaR) methodology and correlation matrix among borrowers. The data for VaR analysis are gathered from Croatian National Bank, Bulletin-Statistical Survey; Table D5: Distribution of credit institutions' loans by domestic institutional sectors.

4.1. The analysis of hypothetical scenario: capital adequacy with real valorisation of banks' assets

The own funds (OF) of Croatian banks amount 55.757,5 mil HRK what represents capital adequacy ratio (CAR) of 20,17%. Statutory capital adequacy ratio in Croatia is 12%. Capital requirements (CR) for capital adequacy ratio of 12% are 33.174,5 mil HRK, what means that the achieved capital adequacy is 22.583,0 mil kn (8,17%) more than regulator requires.

$$\text{CAR} = f(\text{OF}) \quad (1)$$

$$\text{CAR} = f(55.757,5 \text{ mil}) = 20,17\%$$

But, the problem is that the bad loans (BL), grouped in B and C category of partly irrecoverable and fully irrecoverable loans have been increasing constantly, what was presented earlier in Figure 5. In June 2012 the partly and fully irrecoverable loans reached level of 41.771,3 mil HRK. Analyzing the report of profits and losses of Croatian banks it could be seen that for potential risk of losses (PL) was set aside only 1.775,5 mil HRK, what means that there are 39.995,8 mil HRK of bad loans left uncovered (UBL).

$$\text{UBL} = \text{BL} - \text{PL} \quad (2)$$

$$\text{BL} = 41.771,3 \text{ mil HRK}$$

$$\text{PL} = 1.775,5 \text{ mil HRK}$$

$$\text{UBL} = 41.771,3 \text{ mil HRK} - 1.775,5 \text{ mil HRK} = 39.995,8 \text{ mil HRK}$$

If the banks would cover the potential losses of risky assets by their capital, then they should decrease the own funds by 39.995,8 mil HRK. This leads to different situation of capital adequacy ratio. The own funds would be decreased and it would amount 15.761,7 mil HRK.

$$\text{OF}' = \text{OF} - \text{UBL} \quad (3)$$

$$OF' = 55.757,5 \text{ mil HRK} - 39.995,8 \text{ mil HRK} = 15.761,7 \text{ mil HRK}$$

If inversed calculation is applied, then it is easy to calculate the new capital adequacy ratio.

$$CAR (CR=33.174,5 \text{ mil}) = 12\% \quad (4)$$

$$1 \text{ p.p.} = 33.174,5 \text{ mil HRK} / 12\% = 2.764,5 \text{ mil HRK}$$

$$CAR' = OF' / 2.764,5 \text{ mil HRK} = 15.761,7 \text{ mil HRK} / 2.764,5 \text{ mil HRK} \quad (5)$$

$$CAR' = 5,7\%$$

According to the data, the demanded regulatory rate of 12% refers to 33.174,5 mil HRK of capital requirements. That means the one percentage point refers to 2.764.5 mil HRK. When 15.761,7 mil HRK of new own funds are divided by 2.764,5 mil, the new capital adequacy ratio amounts 5,7%.

The new capital adequacy ratio should not be considered as the worst prediction, but bank management and monetary regulator should be aware of a threat that exists in economy of Croatia. Undercapitalized bank system is a problem for whole economy because there are many examples of spill over effects that could happened if banks do not operate well (Roger, Vitek, 2012).

4.2. Risk analysis using Value-at-Risk methodology and correlation matrix

One of the basic issue in banks is efficient risk management. Diversification of portfolio is the most common way of reduction level of risk. Value-at-Risk (VaR) methodology calculates the worst expected loss over a given period. In this paper, the portfolio refers to loans to central government, loans to local government, loans to non-financial corporations and loans to households over period from January 2000 to April 2013 on monthly basis. The loans are separated on the ones in Kuna (kn) and in foreign currency (f/c).

The total portfolio value of a given assets amounts 279.157,20 million HRK. The specification of assets' volatility and individual VaRs are given in table 1.

Table 1

Volatility and individual VaR

	<i>volatility (st dev)</i>	<i>position</i>	<i>VaR individual</i>
<i>central gov in kn</i>	16,75%	11.634,6	3205,48
<i>local gov in kn</i>	5,20%	3.374,2	288,60
<i>non-fin corp in kn</i>	1,54%	85.758,4	2172,32

<i>households in kn</i>	1,32%	129.147,6	2804,06
<i>central gov in f/c</i>	14,28%	23.483,8	5515,99
<i>local gov in f/c</i>	21,94%	0,2	0,07
<i>non-fin corp in f/c</i>	3,59%	25.470,1	1504,02
<i>households f/c</i>	6,74%	288,3	31,96

Source: Author's calculation

Analytical VaR estimation for total portfolio provides monthly VaR of 7.223,00 million HRK with a confidence level of 95%. This calculation means that there is 5% chance for losses bigger than 7.223,00 million HRK in any given month of a defined holding period under normal market conditions.

Table 2

Correlation matrix among borrowers

CORRELATION	CENTRAL GOV in kn	LOCAL GOV in kn	NON-FIN CORPORATION S in kn	HOUSEHOLDS in kn	CENTRAL GOV in f/c	LOCAL GOV in f/c	NON-FIN CORPORATION S in f/c	HOUSEHOLDS in f/c
CENTRAL GOV in kn	1	0,168993281	-0,089855842	0,04481561	-0,260031627	0,105370256	0,010006387	-0,057180773
LOCAL GOV in kn	0,168993281	1	-0,132649577	0,046990855	-0,160615559	0,037169989	0,009015294	0,073663612
NON-FIN CORPORATIONS in kn	-0,089855842	-0,132649577	1	0,496711283	-0,060461854	-0,048202527	-0,08618732	-0,02631391
HOUSEHOLDS in kn	0,04481561	0,046990855	0,496711283	1	0,071243457	0,179107756	0,034244773	0,219521118
CENTRAL GOV in f/c	-0,260031627	-0,160615559	-0,060461854	0,071243457	1	-0,034116981	-0,013996854	0,046520405
LOCAL GOV in f/c	0,105370256	0,037169989	-0,048202527	0,179107756	-0,034116981	1	0,222118713	0,187552099
NON-FIN CORPORATIONS in f/c	0,010006387	0,009015294	-0,08618732	0,034244773	-0,013996854	0,222118713	1	0,278802792
HOUSEHOLDS in f/c	-0,057180773	0,073663612	-0,02631391	0,219521118	0,046520405	0,187552099	0,278802792	1

Source: Author's calculation

The correlation of loans between sectors is low which indicates that there is diversification benefit of portfolio. Although, there could be indication of possible lack of diversification among households and non-financial corporations, because in this case the matrix shows the correlation of 0,4967 which is the highest among all borrowers.

5. CONCLUSIONS

Relationship between financial and real system in Croatia is not compliant, because banks do not enjoy such stability as there is presented in their financial reports. High capital adequacy ratio doesn't mean that banks in Croatia have enough funds and that they will or can follow the needs of real sector.

The situation in Croatia is not result of regulatory requirements. High capital adequacy ratio in Croatian banks could be considered as a result of administrative and methodological changes and not as a real capital level. Capital adequacy ratio of 20,17% has no real cover, because the risky loans and assets of Croatian banks exceed 40.000 mil HRK, and reserves for potential losses are less than 2.000 mil HRK. The huge gap between high level of partly and fully irrecoverable loans on one side and low reserves for potential losses of other side speaks about apparent stability of bank system in Croatia. Although the correlation among borrowers speaks about good diversification, except among households and non-financial corporations, the analytical VaR estimates quite big possible losses on monthly basis. The worst scenario of capital adequacy ratio of 5,7% could be avoid if the regulator would determine that for risky claims there should be formed bigger reserves or it would be necessary recapitalization of banks and it that way it would be achieved required capital adequacy ratio.

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**MONETARY POLICY EFFECTIVENESS IN THE
PERIOD OF ECONOMIC CRISIS**

JEL classification: E52, E58

Abstract

Since 2007, many monetary authorities have drastically changed its monetary policy. They began an aggressive struggle with the biggest economic crisis since the Great Depression. Despite the substantial decline in Central banks interest rates in US and EMU and despite the sharp easing of monetary policy in many other countries, the cost of credit to both households and businesses has generally risen in almost every country. All this leads to the question of whether monetary policy becomes less effective in periods of recession or not. The goal of this paper is to empirically examine the hypothesis of reduced effectiveness of monetary policy in period of economic crisis. The paper starts with assertions: (i) the money supply, in the narrow sense (M_1) is determined by the monetary base (M_0) and money multiplier (m), and (ii) monetary authority have full control on monetary base, while the money multiplier are only partially determined by monetary authority. It is also determined by the actions of non-banking public and the banks, and because of that monetary policy effectiveness could decrease in the period of economic crisis. Based on a sample of six countries this paper examines the strength of the relationship between monetary aggregates during recessions and in period out of recessions, and according the obtained results appropriate conclusions and explanations are offered.

Keywords: *economic crisis, monetary policy effectiveness, monetary aggregates*

1. INTRODUCTION

Since 2007, many monetary authorities have drastically changed their monetary policy. They began an aggressive struggle with the biggest economic crisis since the Great Depression. Easy availability of credit in the US and debt-financed consumer spending led to a housing construction boom and Real estate bubble which peaked in 2006. As a part of the housing and credit booms, the financial innovations such as mortgage-backed securities (MBS) and collateralized debt obligations (CDO), which derived their value from mortgage payments and housing prices, significantly increased. When asset prices rise too far out of line with fundamentals, they must come down, and eventually the housing price bubble burst.¹ As housing prices declined, major global financial institutions that had borrowed and invested heavily in subprime MBS reported significant losses. Defaults and losses on other loan types also increased significantly as the crisis expanded from the housing market to other parts of the economy. Total losses are estimated in the trillions of U.S. dollars globally (IMF, 2010). Lehman Brothers was liquidated, Bear Stearns and Merrill Lynch were sold, Goldman Sachs and Morgan Stanley became commercial banks, Fannie Mae and Freddie Mac were placed under control of the U.S. government. These seven institutions were highly leveraged and had 9 trillion USD in debt or guarantee obligations. The crisis rapidly developed and spread into a global economic shock, resulting in a number of European bank failures, declines in various stock indexes, and large reductions in the market value of equities and commodities.

U.S. Federal Reserve and other central banks around the world knows that behaviour which may be optimal for an individual such as saving more during adverse economic conditions can be harmful for economy as a whole. That is because one person's consumption is another person's income. Too many consumers attempting to save (or pay down debt) simultaneously can cause or deepen a recession (that is the paradox of thrift). Because of that, they have taken steps in order to expand money supplies to avoid the risk of a deflationary spiral, in which lower wages and higher unemployment lead to a self-reinforcing decline in global consumption.

FED has eased monetary policy aggressively lowering the federal funds rate target from 5 ¼% in September 2007 to 0 ¼% in December 2008. The ECB also decreased the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility from 4.25%, 5.25% and 3.25%, respectively in September 2008, to 1.50%, 2.50% and 0.50%, respectively in March 2009.

¹ Although the problem originated in the United States, the wake-up call came from Europe. After Fitch and Standard&Poor's announced ratings downgrades on MBS, a BNP Paribas (French investment house) suspended redemption of shares held in some of its money market funds on August 7, 2008. That shows how extensive the globalization of financial markets had become.

During the last quarter of 2008, these central banks purchased US\$2.5 trillion of government debt and troubled private assets from banks. This was the largest liquidity injection into the credit market, and the largest monetary policy action, in world history. The governments of EU and the USA also raised the capital of their national banking systems by \$1.5 trillion, by purchasing newly issued preferred stock in their major banks.

In October 2010, Nobel laureate Joseph Stiglitz explained how the U.S. Federal Reserve was implementing another monetary policy —creating currency— as a method to combat the liquidity trap. By creating \$600 billion and inserting this directly into banks, the Federal Reserve intended to encourage banks to finance more domestic loans and refinance mortgages. However, banks instead were spending the money in more profitable areas by investing internationally in emerging markets (Stiglitz, 2010).

In Croatia a strong shift in monetary policy has also occurred. The first decision was made in October 2008. That was Decision to abolish the Decision of the marginal reserve requirement in order to increase foreign currency liquidity of banks. Then, in November of the same year, the reserve requirement rate was reduced from 17% to 14% which released 8.4 billion Kuna liquidity. In February 2010 this rate was further reduced to 13%, which freed up another 2.9 billion Kuna for financing government and HBOR programs of encouraging bank credit activity. In January and then again in February 2009 CNB made decisions to reduce the rates of minimum required amount of foreign currency claims, first from 28.5 to 25 percent (in January) and then from 25 to 20 percent (in February), which the banking system allowed free access to a total of 18.25 billion Kuna. In March 2011 CNB Governor made a decision to additional easing of rates of minimum required amount of foreign currency claims from 20 to 17%, which meant for bankers 6.3 billion Kuna of new free funds. All this shows that monetary policy has changed from contractionary to expansionary.

Despite the substantial decline in Central banks interest rates in US and EMU and despite the sharp easing of monetary policy in many other countries, the cost of credit to both households and businesses has generally risen in almost every country. Banks and other financial intermediaries have also sharply tightened credit standards for both household and businesses. In Croatia banks' interest rates on Kuna credits indexed to foreign currency and on credits in euros before crises (average for 2006) was 6.32% and in 2009 it was 8.11%. All this leads to the question of whether monetary policy becomes less effective during period of recessions or not. Paul Krugman has expressed his view on this phenomenon in his New York Times column, stating, "We are already, however, well into the realm of what I call depression economics. By that I mean a state of affairs like that of the 1930s in which the usual tools of monetary policy – above all the Federal Reserve's ability to pump up the economy by cutting interest rates – have lost all traction." (Krugman, 2008). This view originated from Keynesian discussions of the effectiveness of monetary policy during the Great Depression period (Fishback, 2010). During the great depression of the 1930's, interest rates

dropped below 1%. At this low interest rate, one would think that many businesses would have taken out loans. But this did not happen: the volume of loans also decreased considerably. The reason was that businesses had difficulties staying in business, and banks were afraid to lend them money. Because of the shocks to credit markets from the financial crisis, the argument is that monetary policy is unable to lower the cost of credit.

The goal of this paper is to empirically examine the hypothesis of reduced effectiveness of monetary policy in period of economic crisis. The paper is divided as follows. The part after the introduction contains a brief literature review that can be associated with the issue of the effectiveness of monetary policy and the transfer of monetary decisions into the economy. The third part contains a theoretical framework and starting assumptions. After that follows description of the data and research results in forth part of this paper, while the fifth section makes concluding remarks

2. LITERATURE REVIEW

Slow exit from the economic crisis have raised concerns about whether monetary policy has lost its effectiveness during ongoing financial and economic crisis. Although the role of monetary policy in the economy has been examined extensively in many empirical literature (Keynes, 1936; Tobin, 1965; Friedman, 1968; Barro, 1976; Goodfired & King, 1997; etc.), as well as mechanism of monetary policy transmission into the real economy (Friedman & Swartz, 1963; Bernanke, 1995; Gabe, 2000; Meltzer, 2001; Mishkin, 2007, ect.) analysis of the efficiency of monetary policy under different circumstances was less explored. Among the papers dealing with this issue the following papers should be mentioned.

Gambacorta et.al. (2012) assess the macroeconomic effects of unconventional monetary policies by estimating a panel VAR with monthly data from eight advanced economies over a sample spanning the period since the onset of the global financial crisis. They found that an exogenous increase in central bank balance sheets at the zero lower bound leads to a temporary rise in economic activity and consumer prices, while the impact on the price level is weaker and less persistent.

Abassi and Linzert (2012) analyzed the effectiveness of monetary policy in steering euro area money market rates by looking at the predictability of money market rates on the basis of monetary policy expectations and the impact of extraordinary central bank measures on money market rates. They found that during the crisis money market rates up to 12 months still respond to revisions in the expected path of future rates, even though to a lesser extent than before August 2007. They attribute part of the loss in monetary policy effectiveness to money market rates being driven by higher liquidity premium and increased uncertainty about future interest rates.

Catte et.al. (2011.) investigates the role of macroeconomic policies in the global crisis. They focus on period before crisis (2002–2007) and wonder if the Great Recession was avoidable. They perform a number of counterfactual simulations and conclude that US monetary policy was in analysed period over-expansive and they think that more effective macro-prudential supervision before crisis would made the Great Recession less drastic.

Bijapura (2009) investigates the effectiveness of monetary policy during a credit crunch by estimating a vector auto regression on the US economy. He presents evidence that interest rate cuts have a diminished impact on growth, due to impairment in the relationship between monetary policy and the supply of intermediated credit

Arestis and Sawyer (2003) in the centre of their research put endogenous of money and use of interest rates as the key element of monetary policy. They notice clear limits on interest rates, notably that nominal interest rates cannot go negative, and the level of international interest rates constrain domestic interest rates. Their results shows that interest rates are relatively ineffective in the control of inflation.

Among domestic (Croatian) authors, the work of Bokan et.al. (2010) should be emphasized. The authors established a dynamic stochastic equilibrium (DSGE) model for Croatia. They examined the results of the simultaneous action of the crisis (which is modelled by proxying it with increase in the foreign interest rate and drop in the demand for Croatian export products) and the Monetary policy response (which is introduced in the form of regulatory requirement reduction). They found that in period of crisis, the Croatian economy declines despite the significant monetary policy reactions. Limitations of the efficiency of monetary authority influences they see in chosen strategy of keeping exchange rate broadly stable and in highly euroized Croatian relatively small and open economy.

3. THEORETICAL FRAMEWORK

Monetary policy is the process by which the monetary authority of a country controls the supply of money for the purpose of promoting economic growth and stability. If monetary authority has difficulties in controlling money supply then it will not be able to act appropriately to the disturbances in the economy. The issue of influence of monetary authority on money supply is the issue of endogeneity of money. Traditionally it was thought that the money supply can be treated as exogenous and its supply is completely under the control of the Central Bank (as an agent of the government). This classic view assumes that the money supply (M_1) is a product of monetary base (B) (reserve money, high-powered money) and money multiplier (m): $M_1 = B \times m$, where the central bank is able to control the monetary base, and money multiplier is stable.

On the other hand, supporters of the post-Keynesian theory (PK) stand that money supply is an endogenous variable, and that means that it is primarily influenced by external factors determined by demand for loans. Central banks has limited control of the money supply and bank reserves. Post Keynesians argue that credit money comes into existence as a result of borrowing from the banks, and it is extinguished as a result of the repayment of bank debt (Kaldor and Trevithick, 1981). Whenever economic actors choose to borrow from their banks, they also make the deposits and bank money are created in that process. Whenever economic actors choose to repay their bank loans, bank money are destroyed. In turn, the terms on which credit money is issued, i.e. the interest rate charged on bank loans and paid on bank deposits, play a crucial role in governing the rate of expansion of the money stock (Moore, 1989).

The concept of endogenous (bank) money is a particularly important one for macroeconomic analysis, especially within Keynesian economics. Bank money provides a more realistic approach to money in comparison with the exogenous, controllable money approach (in the sense that most money in an industrialized economy is bank money). Further, the concept of endogenous money fits well with the current approach to monetary policy based on the setting (or targeting) of a key interest rate. In endogenous-money models, the causal relationship between the stock of money and prices is reversed as compared with the exogenous money case. Endogenous money plays an important role in the causal relationship between investment and savings: simply the availability of loans permits the expansion of investment, which leads to a corresponding expansion of savings and to an expansion of bank deposits, which may later be extinguished as and when loans are paid off.

In order to empirically analyse the ability of monetary authority to control money supply and to influence on macroeconomic real variables such as GDP, real wages or the level of employment, we have to start with the definition of money and base money and how their quantities can be measured in practice.

In practice, the classification of instruments as ‘money’ can be problematic. The various financial instruments differ according to their transactions costs, the range in which they can be used for payment and the extent to which they preserve their value, i.e. the extent they have the functions of money.

The narrowest subset comprises the financial instruments available for payment in the fastest way, at the lowest transaction costs and without restrictions (M_1 money aggregate). It includes currency in circulation (banknotes and coins - G) + demand deposits available for direct payment (D). Demand deposits includes government deposits within Central banks, households and enterprises deposits within commercial banks:

$$M_1 = G + D \quad (1)$$

In addition to the above, the broader categories of money (M_2 and M_3 money aggregates) also include the less liquid liabilities of monetary financial institutions (MFIs), i.e. financial instruments not available for direct payment (time deposits and certain types of securities), depending on the respective transaction costs, maturities and risk levels.

The currency in circulation (money outside the banks) (G), and the balance on the current accounts of credit institutions kept with the central bank (reserves of the banking system - R), constitute the monetary base (M_0).

$$M_0 = G + R \quad (2)$$

The latter means the bank accounts on which credit institutions keep the liquidity required for their day-to-day operation and which are used to meet their reserve requirements. They are collectively referred to as bank reserves.

Monetary base (reserve money) in liabilities of Central Bank is connected with foreign exchange reserves in assets of Central Bank. The ratio of these components is determined by the chosen exchange rate regime, and this choice affects the ability of monetary authority to implement an independent monetary policy.

Central banks (CB) increases or decreases monetary base by changing the levels of its assets primarily based upon foreign assets and claims on banks. Central banks uses open market operations and foreign exchange interventions. When monetary authorities buy securities, the consequence is higher monetary base, and vice versa. The role of non-banking public (households and firms) is that they make a decision how much currency it wishes to hold relative to deposits. Although open market operations and discount loans both change the monetary base, the CB has greater control over open market operations than over discount loans. The CB completely controls the volume of open market operations because it initiates purchases or sales of securities. On the other hand, when banks borrow from the central bank (using standing facilities), they decide whether to borrow funds under these conditions or not. Of course the CB sets interest rates for their loans and thereby encourages or discourages banks to borrow.

Beside monetary base (M_0), the factor that determines the money supply (M_1) is the monetary multiplier (m):

$$M_1 = m \times M_0 \quad (3)$$

The size of the monetary multiplier is determined by the actions of three parties in the economy: the Central Bank, non-banking public and the banks. We can wonder what happens to the money supply when the central bank buys securities from commercial banks. That increases the credit potential of banks and banks have an incentive to loan out or invest these funds. When a commercial bank grants the loan (based on these resources) to non-bank public, the M_1 money supply increases ($M_1 = G + D$). Furthermore, loans are usually used to meet the

obligations of the borrower, and because of that, the money eventually end up back to banks in a form of bank deposits, which again increases the credit potential of banks. This means that through a process of deposit and credit multiplication (based on the rate of required reserves and the rate of unused credit potential – excess reserves) the primary initial impulse is multiplied.

Looking at the process of deposit and credit multiplication it seems that commercial banks actually create the majority of money. However, the bank can lend an amount equal to its excess reserves. The new deposit is created when the borrower spends the money that was borrowed from the bank, and when that money comes back into the banking system.

Here we can notice that the central bank can expand the volume of deposits in the banking system by increasing reserves, and can also contract the volume of deposits by reducing the reserves. Central Bank reduces reserves by selling securities in an open market sale. This action has an effect that is similar to deposit expansion in the banking system, but in the opposite direction.

Banks influence the multiplicative effects if they hold more reserves than prescribed by the central bank (if they have excess reserves). Non-banking public affects the multiplication if it holds more cash and have a lower demand for loans.

Money multiplier links the monetary base to the money supply. If it is not stable, monetary authority will not be able to influence the money supply by changing monetary base.

Equation (4) derived from equation (3) tells us that the money multiplier is equal to the ratio of money supply and monetary base:

$$m = \frac{M_1}{M_0} \quad (4)$$

Recall that the money supply (M_1) is the sum of currency in circulation (G) and deposits (D), while the monetary base (M_0) is the sum of currency in circulation (G) and bank reserves (R). Reserves can be separated into two components: required reserves (RR) and excess reserves (ER). Introducing this into (4), it is obtained:

$$m = \frac{(G + D)}{(G + RR + ER)} \quad (5)$$

As we obtained earlier, the incentive of non-banking public to hold currency, as well as the tendency of banks to hold excess reserves is important for multiplication. In order to capture these behaviours in the expression for the money multiplier we introduce two indicators: currency-to-deposit ratio (G/D), which measures the nonbank public's holdings of currency relative to its holdings of deposits, and the excess reserves-to-deposit ratio (ER/D), which measure banks' holdings of excess reserves relative to their deposits. To include these

ratios in the expression for the money multiplier (5), we can divide numerator and denominator by D and we will get the expression (6):

$$m = \frac{\left(\frac{G}{D} + 1\right)}{\left(\frac{G}{D} + \frac{RR}{D} + \frac{ER}{D}\right)} \quad (6)$$

Equation (6) contains three components. RR/D is a part of the multiplier that monetary authorities have control on through the reserve requirement mechanism, but the other two components (G/D and ER/D) are not under its direct control. An increase in the G/D causes the value of the money multiplier to decline and, if the monetary base is unchanged, the value of the money supply will decline. That is because, if households and firms hold more currency relative to the deposits, banks will have less money to lend which will reduce the multiplication of deposits. An increase in required reserve ratio (RR/D) also causes the value of the multiplier to decline because banks will have less money to lend because it will have to use it in order to maintain higher required reserves. An increase in the excess reserves-to-deposit ratio (ER/D) causes the value of the money multiplier to decline, because, if banks hold relatively more excess reserves, that means that they are not using these funds to make loans as part of the process of multiple deposit creation. Banks make the decision about ER/D ratio.

It follows from equation (4) and (6) that:

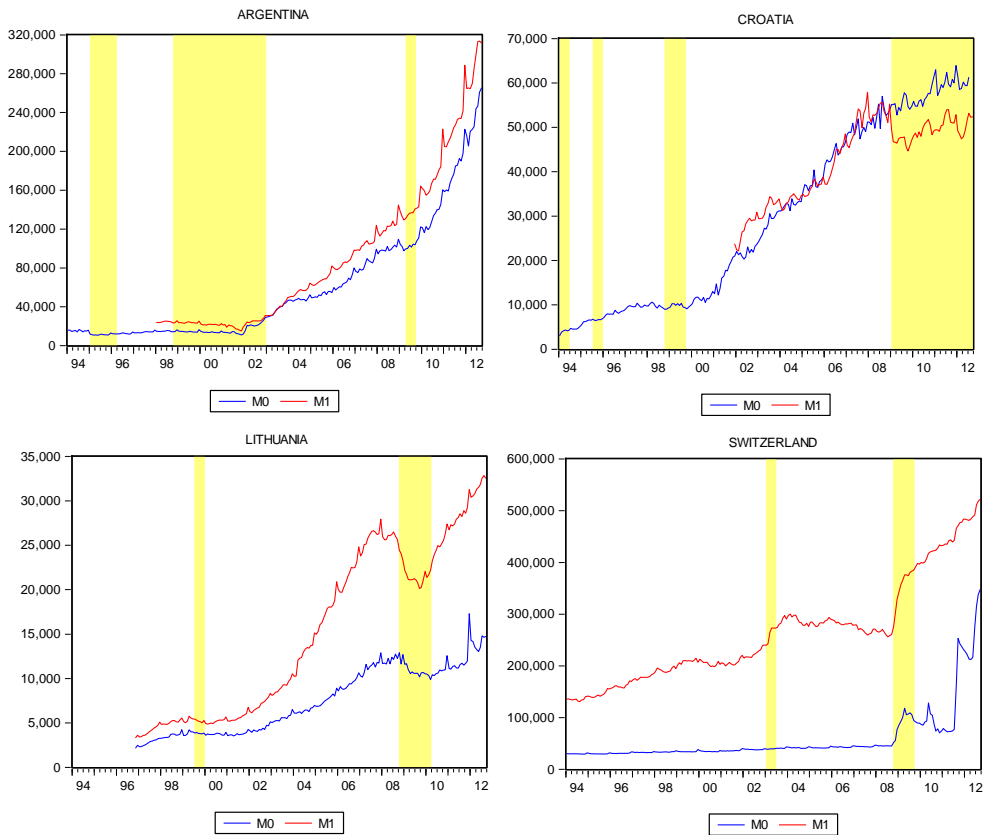
$$M_1 = \frac{\left(\frac{G}{D} + 1\right)}{\left(\frac{G}{D} + \frac{RR}{D} + \frac{ER}{D}\right)} \times M_0 \quad (7)$$

This equation shows the way the money supply, measured with the M_1 aggregate, is a function of the various variables and some of them are not under direct influence of monetary policy. If we assume that monetary multiplier is relatively stable, than central bank's influence on monetary base is crucial in regulating money supply, and since the inflation process is related to the amount of money, it is practical for the central bank to influence the size of the monetary aggregates (quantity theory of money).

4. DATA AND RESULTS

If there is a significantly lower correlation between M_0 and M_1 during the recession this could indicate that monetary authority loses its effectiveness during the recessions. In order to determine that, the correlation coefficients for periods in recession, and for periods out of recession are separately calculated.

Input data consists of monthly values of M1 and M0 for selected five countries (Argentina, Croatia, Lithuania, Switzerland, Ukraine and the U.S.) and European Monetary Union (EMU). Criteria for selecting the country in the analysis are the data availability and the occurrence of the economic crisis. The data were obtained from IMF database (<http://elibrary-data.imf.org/DataExplorer.aspx>). Statistical analysis was conducted using the software package Eviews 5.0.



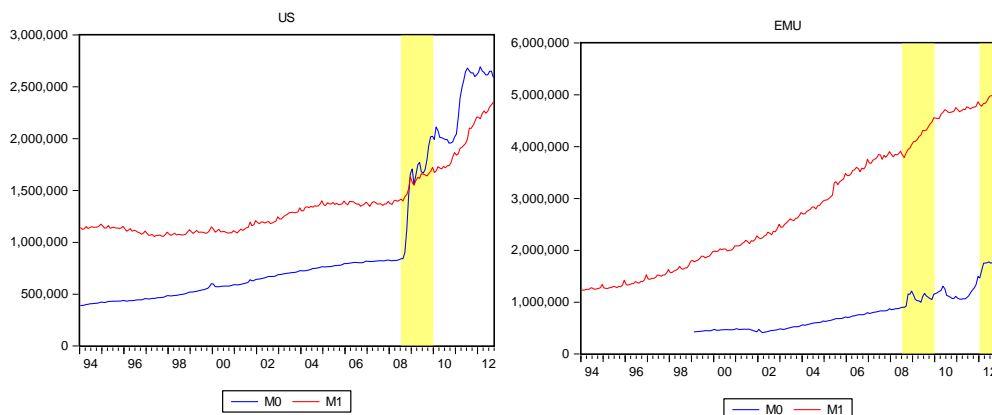


Figure 1 Movement of M0 and M1 monetary aggregates

Source: author's calculations based on data from IMF database

Note: Shaded intervals denote recession periods

In figure 1 we can see that the variables M_0 and M_1 for different countries have different movement pattern. For most countries and for most of the analysed time they have tendency to grow in tandem. For Argentina, it can be noticed that both variables (M_0 and M_1) start its exponential growth at the end of recession (in early 2003). In Croatia we have a stable (but not exponential) growth of these variables from 2000 until the beginning of the crisis in late 2008. From 2008 till the end of analysed period we have stagnation of M_1 and slower growth of M_0 .

In Lithuania the growth is significant from 2001 all the way down 2007 when a recession started as well as a significant decline in both variables. After the recession both variables started to grow again. Switzerland had an almost constant M_0 variable until the beginning of the recession at the end of 2008 and slow growth of M_1 variable. The graph on Figure 1 reveals that the movement of M_1 cannot be explained by the movement of M_0 variable. Switzerland significantly increased the amount of base money in 2011 when we have a crisis in Eurozone and increased exchange rate of the Swiss franc vis – a – vis euro. Because of the Eurozone crisis, too many people were buying the franc to put their money in Switzerland, which is safer than Europe. But this was raising the value of the franc, making exporting Swiss goods more expensive, and hence hurting Switzerland's economy. Because of that at the end of 2011 the Swiss National Bank decided to peg the franc to the euro at 1.20 francs for euro.

The most significant changes in the movement and relation between M_0 and M_1 can be seen for U.S. economy. Namely, Figure 1 shows a strong growth in M_0 at the beginning of the recession, and not so strong response of M_1 growth. Because of that, the monetary multiplier for US has dropped below 1 (this phenomenon can also be seen in Croatia), which indicates that in the period of

recession the association of these variables (M_0 and M_1) is reduced. In addition, aftermath the recession the reduction of M_0 does not slow down the growth of M_1 , which means that in the post crisis period there is also reduced the linkage between these variables in US as well.

Finally, as far as the concerned of movement of these variables for the EMU, we can also notice (which is confirmed in further calculations) the diminished correlation between M_0 and M_1 variables during the recession, but also aftermath the recession.

Table 1

Descriptive statistics for M_0 and M_1 variables

	ARG M0	CRO M0	EMU M0	LIT M0	SWI M0	USA M0
Mean	59265.60	29579.32	788087.7	7466.916	57950.24	945186.4
Median	34149.19	27037.79	698391.5	6680.600	40187.00	701457.0
Maximum	265189.0	63883.65	1774568.	17279.80	347430.0	2692502.
Minimum	10783.92	3107.136	415566.0	2193.500	29480.00	390869.0
Std. Dev.	59942.12	20108.54	349192.2	3696.331	54667.75	672796.7
Skewness	1.462409	0.241606	1.048987	0.292727	3.271315	1.531049
Kurtosis	4.520026	1.471359	3.518451	1.718599	13.94157	3.927191
Jarque-Bera	101.8598	23.88177	31.91362	15.79527	1523.661	95.96366
Probability	0.000000	0.000007	0.000000	0.000372	0.000000	0.000000
Sum	13334760	6596189.	1.29E+08	1426181.	13038803	2.13E+08
Sum Sq. Dev.	8.05E+11	8.98E+10	1.99E+13	2.60E+09	6.69E+11	1.01E+14
Observations	225	223	164	191	225	225
	ARG M1	CRO M1	EMU M1	LIT M1	SWI M1	USA M1
Mean	91103.63	42738.62	2806306.	15238.33	263779.8	1351593.
Median	65745.75	46370.72	2561474.	13724.10	259683.0	1266000.
Maximum	313747.7	57878.27	5022864.	32836.00	521900.0	2349800.
Minimum	15087.55	22164.86	1228742.	3339.200	130951.0	1054700.
Std. Dev.	77046.24	9241.611	1214898.	9466.769	98598.24	312919.6
Skewness	1.139749	-0.413971	0.329081	0.212755	0.855712	1.506149

Kurtosis	3.492613	1.853599	1.712427	1.472791	2.890491	4.618127
Jarque-Bera	40.11098	10.83183	19.60332	20.00268	27.57154	109.6151
Probability	0.000000	0.004445	0.000055	0.000045	0.000001	0.000000
Sum	16125343	5556020.	6.31E+08	2910521.	59350445	3.04E+08
Sum Sq. Dev.	1.04E+12	1.10E+10	3.31E+14	1.70E+10	2.18E+12	2.19E+13
Observations	177	130	225	191	225	225

Source: author's calculations based on data from IMF database

Descriptive statistical analysis (see Table 1) shows that all distributions except CRO_M1 have a long right tail. In addition, the distributions CRO_M0, LIT_M0, CRO_M1, EMU_M1, LIT_M1 and SWI_M1 of view are peaked (leptokurtic) relative to the normal, while the distributions ARG_M0, EMU_M0, SWI_M0, USA_M0, ARG_M1 and USA_M1 are flat (platykurtic) compared to the normal distribution.

Jarque-Bera is a test statistic for testing whether the series is normally distributed. The test statistic measures the difference of the skewness and kurtosis of the series from those of normal distribution. The reported probability is a probability that a critical value of the Jarque-Bera is greater (in absolute terms) than the obtained value. A small probability value leads to the rejection of the null hypothesis of a normal distribution for all distributions.

Results of the correlation analysis between underlying variables are shown in Table 2

Table 2

Correlation coefficients between M_0 and M_1 in recession periods and in periods of growth

Country	Period in recession	Number of months	Correl. coef.	Period of growth	Number of months	Correl. coef.
Argentina				1994q1 1994q4	12	N/A
Argentina	1995q1 1996q1	15	N/A	1996q2 1998q3	30	N/A
Argentina	1998q4 2002q4	51	0.800793	2003q1 2009q1	75	0.986323
Argentina	2009q2 2009q3	6	0.807790	2009q4 2012q3	36	0.992642
Croatia	1994q1 1994q2	6	N/A	1994q3 1995q2	12	N/A
Croatia	1995q3 1995q4	6	N/A	1996q1 1998q3	33	N/A
Croatia	1998q4	9	N/A	1999q4	111	0.960505

	1999q3			2008q4		
Croatia	2009q1 2012q3	45	0.642637			
Lithuania				1994q2 1999q2	63	0.983635
Lithuania	1999q3 1999q4	6	0.818966	2000q1 2008q3	105	0.990192
Lithuania	2008q4 2010q1	18	0.751739	2010q2 2012q3	30	0.854698
Switzerland				1994q1 2002q4	108	0.917542
Switzerland	2003q1 2003q2	6	0.816546	2003q3 2008q3	63	0.311789
Switzerland	2008q4 2009q3	12	0.844648	2009q4 2012q3	36	0.893080
U.S.				1994q1 2008q2	174	0.897597
U.S.	2008q3 2009q4	18	0.761177	2010q1 2012q3	33	0.887823
EMU				1996q1 2008q2	150	0.972380
EMU	2008q3 2009q4	18	0.444749	2010q1 2011q4	24	0.506395
EMU	2012q1 2012q3	9	0.479378			

Source: author's calculations based on data from IMF database

Table 2 and Figure 1 show that, among the analyzed countries including EMU, Croatia had the highest number of recession (four) and together with Argentina, Croatia had one of the highest number of quarters in recession (66 months Croatia, and 72 months Argentina). Other countries recorded two or only one period in a recession with an average number of 21.75 months in recession. In some countries strong correlation between M_0 and M_1 variables can be noticed, and for other countries this relationship is weaker (EMU, Switzerland). Nonetheless, for almost all analysed countries (except for Switzerland) the connection between M_0 and M_1 was lower during a recession compared with period out of recession, or compared with period aftermath the recession. To statistically confirm that, we can implement the t -test. In our sample we have ten correlation coefficients for recession periods and 13 correlation coefficients for periods without recession. In order to test hypothesis of equality of means we can use expression (8).

$$Se(\bar{X}_1 - \bar{X}_2) = \sqrt{\left(\frac{n_1 \cdot \hat{\delta}_1^2 + n_2 \cdot \hat{\delta}_2^2}{n_1 + n_2 - 2} \right) \cdot \left(\frac{n_1 + n_2}{n_1 \cdot n_2} \right)} \quad (8)$$

The data for calculation are summarised in table 3.

Table 3.

Data for calculation t -test

	Mean of R	n	σ
Periods in recession	0.716842	10	0.145731
Periods out of recession	0.858046	13	0.208299

H0 and H1 hypothesis are:

$$H_0 : \dots \bar{X}_1 - \bar{X}_2 = 0$$

$$H_1 : \dots \bar{X}_1 - \bar{X}_2 \neq 0$$

t -test of acceptance hypothesis H0 is:

$$t^* = \frac{\bar{X}_1 - \bar{X}_2}{Se(\bar{X}_1 - \bar{X}_2)} = \frac{0.716842 - 0.858046}{0.00654132} = -21.58647$$

$t_{tab} = 2.080$ – probability of t -distribution, with $df = 21$ and $\alpha=0.05$

$$|t^*| > t_{21}^{0.05} \Rightarrow \text{we reject } H_0$$

Obtained results of t -test confirms the significantly different correlation coefficients between analysed series, and that proves our initial thesis of the reduced ability of monetary authorities to influence the money supply by changing monetary base in period of recession. That fact could be the obstacle for channelling monetary measures toward real sector and should be taken into the consideration in process of decision making.

3. CONCLUSION

This research shows that in period of crisis monetary authority hampered controlling the movement of the money supply. The reasons for that we can find in changed behaviour of banks and non-banking sector (households and businesses). Namely, in periods of crisis and uncertainty banks are reluctant to grant the loans to households and to businesses as well because of increased credit risk and because the deterioration in their balance sheets. Additionally, because of rising unemployment and fear of job loss, households demand for loans stagnated, and in a same time they start to withdraw money from the bank causing the bank crisis. The overall result of that is the increase of currency-to-

deposit (G/D) and excess reserves-to-deposit (ER/D) ratios and consequently the decline of money multiplier and money supply.

The obtained results of the reduced effectiveness of monetary policy in periods of economic crisis that arising from reduced money multiplier does not mean that there is no reason to use monetary tools to cope with the crisis. On the contrary, the results suggests that when making the decisions about certain monetary measures it should be taken into the consideration the reduced effect of the policy actions that was experienced in periods of crises. So, if the goal of the monetary authority is to offset the contractionary effects of a financial crisis, then it should pursue more aggressive monetary policy than usual, but it should also prepare the exit strategy in a case of high inflation.

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INVESTMENT PLANNING AS A CONTRIBUTOR TO RISK MANAGEMENT

JEL classification: E22, E27, F37, G32

Abstract

In order for Risk Management to meet the requirements it has been given, it is joined by Controlling, that has become its fundamental service tool. Controlling has developed numerous tools that are being updated and improved on an everyday basis, together with the education of controllers. Development is inevitable and it is the only response to the crisis of our global environment. Development requires investments, and not the „stranded“ ones, but the ones generating new jobs and added value, thus increasing wealth. Investments should be planned, and planning is a particular problem that transition economies face. Should one be investing in the times of crisis and how should one decide on whether to make an investment or not? If this is so, then how should he protect his investment from negative impacts? How should one make plans and carry out the planned investments? Those are the questions that require answers and this paper is an attempt in providing appropriate answers to those questions by explaining the connection between investment planning and risk management.

The condition of crisis has become a regular occurrence, where businessmen are forced to make do and to work in order to survive, and some of them are impelled to make the most of it and utilize it as a development opportunity. Being fast not only in making decisions, but in making successful decisions, is based on future projections and utilization of the said ability in achieving competitive advantage on the market. Risk

Management has become a necessity, and is legally regulated in developed countries.

Key words: *investment decision-making, investment planning, development, risk management, controlling*

1. INTRODUCTION

According to the principles of market planning, the planning issue, and investment planning in particular, is a novelty for the transition economy organizations. Following the breakup of the former socialist system in Europe, the so-called social, i.e. national planning decreased. In order for the transition economies to be able to complete the transition process, they need to accept the laws of market, as well as the planning regulations.

When discussing the planning, it is essential to integrate the goal into the plan. On the way towards the goal the time is set that brings dynamic changes, and the time together with a dynamic environment brings along inevitable risks. We often ask ourselves if the future is uncertain, and therefore the planning as well, then why make plans at all?

Still, the planning is necessary, since without it we would not know what path to take or how and when to get where we want.

The reality of running business in the times of crisis indicates the problem of development, that is the problem of insufficient investment. Therefore, as a subject matter of the paper we will present the market-directed investment planning, taking place in a dynamic and turbulent environment. The purpose of the paper is to point to the fundamental aspects of this issue, and our goal is to determine the steps to take in order to get from an idea to a successfully completed investment.

The paper consists of an introduction, a conclusion and six chapters. The intention of the research is to contribute to the extending of knowledge of the planning theory in Croatia that has been scarce, as well as to its practical application that requires an ever more intensive solutions for the process of planning in times of crisis.

2. INVESTMENT PLANNING

The investment decision-making process is basically the process of capital accumulation utilization decision-making. It is essential for this definition to emphasize that the decision-making regards the utilization of the capital accumulation, which means that a development decision-making is not considered an investment decision-making unless it implies capital expenditure.

2.1. Investment Planning and Risk

The basic characteristic of investment is that investment and capital expenditure do not bring benefits immediately, but after a certain period of time. Because of this, there is a shift between the investment period and the benefit period, and it is logical to conclude that the period of investment (expenditure) is the first to come, and afterwards the period of benefit. Taking into consideration the fact that the utilization of capital accumulation assumes the utilization of other production factors, we can as well define investment as a sacrifice of current production factors for the eventual increasing of benefits in the future. Due to the afore-mentioned time shift between the period of investment and the investment effectuation period, a problem occurs regarding the risk that the planned investment might not be effectuated. The risk can be defined as the knowledge of a state where each decision can cause a range of certain effects to take place. (Jurković, 1984., 218.) In so doing, each result can occur with a known probability. Therefore, the risk can be considered a quantitative measuring of a certain result (consequence) such as: profit, loss and other in a way that the probability of the result can be predicted. From this definition of the risk the fundamental feature of the term is generated, which is the measuring and prediction.

One of the most commonly used measures of risk is the standard deviation. As far as the risk is concerned, in theory and practice there are two different methods of determining the possible risk when making a certain business decision.

The first method of determining the risk is by means of deduction, that is *a priori*, with the second method being *a posteriori*, meaning that the risk is determined based on the empirical measuring and results obtained.

The first method of determining the possible risk is for the decisionmaker to be able to assess the probability of a result or an event with certainty, without having to refer to historical data. Therefore, this method relies on assumptions, providing the characteristics of each possible event are known in advance. It is clear that this method of determining the risk is hardly useful and unreliable in practice, since there is a small likelihood of a probability *a priori*.

The second method of risk evaluation takes into consideration the past, i.e. historical events as the basis for the decision-making. This method, despite all its defects, has a much wider significance in making decisions in practice.

With bigger amount of relevant data at a decisionmaker's disposal, the assessment of risk is more reliable, and the decision made is of more quality, and therefore the modern business theory and practice require the application of the *a posteriori* approach to the business risk assessment. In order to have a high-quality application of this method, it is necessary to know the result frequency distribution parameters based on statistical measuring and assessment.

We can assume that each business decision is in itself an investment decision (not a speculative one), but an investment decision corresponding in meaning and definition to the one given by B. Graham in his famous book called *The Intelligent Investor* (Graham, 2006., 38.) - „an investment operation is one

which, after thorough analysis, promises safety of principal and a satisfactory return.“

Therefore, it is important to determine the size of the risk for a business, i.e. an investment decision in failing to generate an expected return/profit.

Since the planning of an investment project is an extremely multidisciplinary activity that requires an adequate work organization, regardless of the fact that each individual investment undertaking is specific, there is a certain number of aspects of planning that are included as a form in the standard procedure of planning an investment undertaking. Within this kind of planning we can distinguish between two basic groups, such as: a) natural aspects (market analysis, geological analysis, technological analysis, location analysis, ecological analysis... etc.) and b) financial aspects preceded by the afore-mentioned natural aspects. Both groups of aspects need to be thoroughly examined in order for us to be able to obtain reliable answers to the fundamental questions of cost-effectiveness and sustainability of each investment undertaking.

A clearly defined conceptual decisions are the basis for the operationalization of a specific system of investment project planning. As inseparably linked to the process of growth and development, and defined as a consistent combination of the planned and analytical procedures, the system of investment project planning needs to present a norm that will standardize the practical behavior of all the business entities involved. The goal is the optimization of investment decisionmaking with the aim of reducing the characteristic discrepancy between „what should be“ and „what really is“, which is an investment reality. In the existing multilayered and complex business structures and under the specific Croatian circumstances, it is important to take into consideration the various aspects of the investment project planning system, with restricting of the role of its specific business entities.

2.2. Methodological Assumptions in Investment Project Planning

Following the analysis given above, we can define the methodological assumptions for the investment undertaking operational planning. They also presuppose the requirements that the methodology of such planning is to meet in order to obtain a professionally and methodologically correct analysis of the investment project.

1. Time preferences of a development decision-maker. The sacrifices made as factors that affect development and the benefits arising from it occur in different periods of time, and development decision-makers have their time preferences. The costs and benefits closer to the present time have greater significance than those occurring further in future. Such an occurrence can be presented best by means of the Benefit – Cost Ratio (B/C Ratio) (Martić, 1980., 30.) which is mathematically defined as follows:

$$B / C \text{ ratio} = \frac{\sum_{k=0}^n \frac{B_k}{r^k}}{\sum_{k=0}^n \frac{C_k}{r^k}} \quad (1)$$

2. The alternative utilization of development factors. With regards to the limitations of the development factors, the analysis of their alternative or optional usages is required, with the aim of achieving the maximum possible effects. The analysis of this type is necessary so as to minimize the so-called opportunity costs the amount of which implies a better and more effective utilization of resources than the planned one.

3. The alternative utilization of previous flows. Development factors utilized in the previous time period can, but do not have to, have an alternative utilization. If such flows can be utilized for some other purposes, the economic value of such costs equals the benefit amount in the other utilization. However, if they cannot be utilized anywhere except in the investment project that is being planned, then their economic value equals zero.

4. Marginal effects of the project. The performance and effectuation of each investment have their positive and negative effects on the overall economic processes and economic growth and development. Those effects occur as marginal (boundary) effects, which are additional effects of an investment on the existing conditions. Such effects would not appear if there would be no investment project. Therefore, when planning an investment, it is necessary to analyze all the possible marginal effects of the investment. The analytical method most frequently used for that purpose is the comparison of the position with and without the project carried out, so as to be able to identify the marginal effects of the project. Such an approach is particularly represented when analyzing the structure and range of demand, placement and production.

5. External costs and savings. Some of the effects of the investment project are impossible to be expressed in the form of values, as they are not exchanged on the market. Since such effects affect the overall economic growth and development, it is necessary to integrate them into the investment project and express them in the qualitative form. It needs to be emphasized that the term „costs“ refers to the negative effects, and the term „savings“ refers to the positive effects.

6. The commercial and socioeconomic effectiveness. It is absolutely clear that the market cannot always and under all conditions affect the socioeconomic effectiveness, and sometimes a significant difference arises in the effectiveness of benefits from the aspect of the company (investor) and society. This is why it is essential to analyze both types of effectiveness when designing an investment project.

7. Risk and uncertainty. The planning of investment projects logically implies a future time, which we cannot predict precisely. Due to the extraordinary significance of this methodological assumption that regards risk and the

measuring of risk in investment projects, we have elaborated on the subject in the previous chapter of the paper.

8. Investment life-cycle enclosure. The methodological approach to the planning of an investment project starts from the assumption that the overall production has been effectuated, and financial obligations fulfilled. It presupposes an enclosed life-cycle of specific phases of the investment project.

9. Reinvestment. When assessing the effectiveness of an investment undertaking, the capital accumulation of the project is measured, without analyzing further investments in the accumulation. It means that the matter of size, direction and time of reinvestment of the accumulated profit in an investment undertaking is subject to the business policy of the investor.

10. Methodological consistency and applicability. The methodology of planning the investment projects needs to correspond to the other parts of the economic system in the market economy, because in this way it can provide for a rational economic and social growth and development. The bond is set up by means of clearly defined limitations presented to the investor (company), and those limitations at the same time act as social parameters of planning investment projects. Since the investment project is an operational expression of the development concept, the planning methodology should be applicable in a concrete reality.

11. Interdisciplinary approach. The variety and depth of the issues arising while planning investment projects generates a need for a closer cooperation of experts in various fields. This is why teamwork is a prerequisite for a quality planning.

12. A single information system. The dynamics of the modern development process leads to fast changes in the context of investment undertaking, which is to be kept in mind constantly and recognized when planning an investment. Therefore, the building of a single and comprehensive information system is an unavoidable prerequisite for a rational decision-making in planning.

The above-mentioned and briefly described methodological assumptions represent the exposed operational methodology of planning and assessing of investment projects. A consistent application of the exposed methodology in the preparation and planning of investment enables a risk minimization (up to a feasible limit) to a minimum, and it provides the management structures with monitoring and timely interventions in investment processes, that is in making strategic decisions on the course and intensity of development, and in obtaining a clear answer to the questions such as: What?, How much?, When?, Where?, and How? in trying to reduce the risk interval that each development (investment) decision brings. Investment projects, as a concrete elaboration of possibilities and conditions of development activities to take, need to offer operational answers to the afore-stated questions.

Within the context of the previous analysis, we believe that it is necessary to bear in mind the quote made by J.M. Keynes, saying that: „there is nothing so disastrous as a rational investment policy in an irrational world“. (Damodaran, 2006. ix)

3. INVESTMENT PLANNING AS A CONTRIBUTOR TO DEVELOPMENT

Decision analysis regarding new capital investments, as well as regarding disinvestments, includes a complex sequence of problems and selection possibilities that the management needs to address adequately. Since capital investment requires a long-term engagement, it has to be in line with the overall business strategy of a company. Thus, it needs to be evaluated from the aspect of the strategic development of a company.

The strategic development perspectives include the investing in land, equipment, buildings, natural resources, research departments and other assets developed for the purpose of a future economic benefit. Such perspectives are adopted by the management, but they are also periodically revised and evaluated by the management. The selection of an investment needs to correspond to the course the company is to take, taking into consideration the expected business conditions, perspectives of the company, and the position of the company within a specific sector, as well as regarding the competition.

Companies usually have access to an infinite number of business investments to choose from. Thus, for example, a company can invest in a new plant for the purpose of increasing the capacity, relying on the fact that such an investment will generate profit and thus provide an economic justification for the investment. It can also invest in the replacement of obsolete and old plants for the purpose of increasing the efficiency, considering that it will reduce production costs, thus providing a justification for the investment. On the other hand, some business strategies assume the penetration onto the new markets, and as a consequence, investments in new plants or in the reconstruction of the existing plants. Some other strategies imply the construction of buildings and equipment designed for the research and development of new products, expecting they would contribute to the development of the company. Besides the above-mentioned, capital investments can include significant promotion investments with the purpose of increasing the market share and profit. These, as well as other options, arise in the process of strategic planning and setting realistic business goals.

The process that includes the selection, definition and analysis, as well as the selection among several capital investments is called investment planning (Helfert, 1991., 252.) The said process includes the entire area of decision-making from the very idea till the very economic analysis. It is clear that the investment plan of a company includes the acceptable group of investment projects that require for each one separately, as well as for all of them together to result in a satisfactory economic and financial effects. Business capital investment planning is in fact the selection of those investments that bring an acceptable amount of economic benefit with an acceptable risk rate. (Helfert, 1991., 252.)

The selection among various investment options with limited resources also includes the so-called opportunity cost that presupposes the cost of the alternative utilization of the resources.

The capital investment planning is the investing and spending of resources for the purpose of future cash inflows or through the increase in profit or the capital market value. The analysis of the possible capital investments includes a significant prediction rate for predicting future conditions. To put it briefly, investment planning implies an as much rational as possible distribution of the limited resources in investment possibilities, in accordance with their expected results. At first glance, such a definition seems simple, but in practice some problems occur, as given below:

- While planning the capital investments, it is not possible to predict all the investment possibilities to take place in future, which creates a problem of having to change the planning horizon and appearing of new investment possibilities
- The capital investment plan is usually adopted once a year, meaning that one has to take into consideration the real time shifts that can postpone or even cancel the investment
- The economic and financial criteria (profitability rate, for example) are approximative values and they are not, nor they can be the only basis for adopting the decision on the concrete investment. When making a decision, one needs to bear in mind the market conditions, competition, management capabilities, risk, organizational conditions etc.

Therefore, it is clear that there is a generally valid model, that is an automatism in selecting the adequate investment. It is important to define the procedure of adopting investment decisions and to provide analytical tools utilized in the process of investment planning. An efficient analysis of capital investments requires some fundamental rules that provide the meaning and consistency to the investment decision-making, and we can define them in the following way:

- Defining the problem
- Determining the characteristics of the investment
- Assessing of future costs and profits
- Planning of capital flows growth
- The relevance of accounting data
- Cost deposit
- Time preference of money

The methods of analysis that take into consideration the said elements, although not evenly, establish the relation between the fundamental components, such as: net investment, money flows, economic life and the final value present the basic measures of investment analysis, and for the purpose of this paper we will elaborate more in detail the following three:

- a) Pay-back period
- b) Net present value
- c) Internal rate of return

a) Return period. This is a very practical rule that puts into interrelation the assumed annual money inflow rate of the investment project and the necessary net amount of the investment. The result shows us the number of years that is necessary for our initial investment to return. However, the return of the invested capital is not enough, since the investor wants to make a profit on the investment during the investment period. This problem can be illustrated by means of a simple example of an investment of 100.000 Croatian kunas and the annual business cash flow of 25.000 Croatian kunas, assuming that the investment earns an average return of 10% of invested resources per year. Investment depreciation is presented in the Table below:

Table 1 : Investment depreciation plan

	1	2	3	4
Year	Initial state	Profit with 10%	Business activity cash flow	Final state
1	100.000	10.000	-25.000	85.000
2	85.000	8.500	-25.000	68.500
3	68.500	6.850	-25.000	50.350
4	50.350	5.035	-25.000	30.385
5	30.385	3.039	-25.000	8.424
6	8.424	842	-25.000	- 15.734

Resource: Helfert, 1991., 195.

This simple example shows that the return period is 4 years, but with calculating the average profit on the invested resources of 10%, the depreciation is extended to 6 years, which is 2 years longer than the return period.

b) Net present value. Net present value of the investment presents the difference between the discounted future net cash flows of the investment and the initial investment. This measure indicates whether an investment brings the profit the rate of which is applied in the calculation. An important factor in this method of analysis and assessment is the discount rate, which represents the opportunity profit rate of an investment, and the norm which is commonly used is the total cost of capital of the company that comprises the business risk as well. This rate often reflects the goals of the management in achieving the bigger profitability than the minimum cost of capital.

Table 2: The analysis of the net present value with the 8% rate

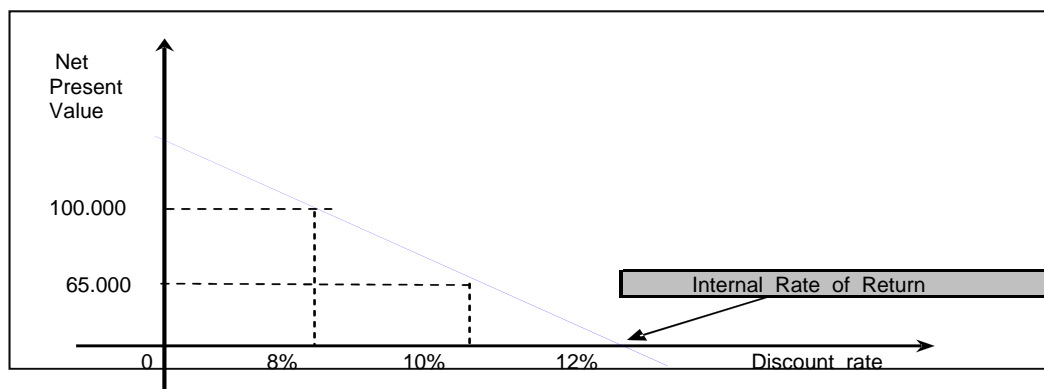
n	1	2	3	4	5
	Investment	Benefits	Present value factor 8%	Present value	Cumulation of net present value
0	100.000		1,000	-100.000	-100.000
1		25.000	0,926	23.150	-76.850
2		25.000	0,857	21.450	-55.425
3		25.000	0,794	19.850	-35.575
4		25.000	0,735	18.375	-17.200
5		25.000	0,681	17.025	-175
6		25.000	0,630	15.750	15.600
Σ	100.000	150.000		15.600	

Resource: Helfert, 1991., 206.

The previous table shows that the investment worth 100.000 Croatian kunas, with six annual nominal inflows of 25.000 Croatian kunas each, assuming that the management of the company considers the 8% profit rate satisfactory, will result in a net present value of 15.600 Croatian kunas. The similarity of this method with the return period method is clearly visible, with a significant difference being that the net present value method contains in itself the required return rates. Therefore, the surplus presented by this method is an economic benefit that satisfies the set norms for profit.

c) Internal rate of return. This concept of analysis includes the real, i.e. maximum return that a specific investment makes. The internal rate of return is the average annual rate of obtaining interest on the invested sum within the investment effectuation period, assuming the profit is reinvested in the very investment project. The problem that arises when applying this method is how to determine the exact discount rate that satisfies the following requirement: Net present value = 0. This problem can be solved in the simplest way by means of the approximative method of calculation of the veer value and its equating to zero, which is showed in the following diagram.

Diagram 1: An overview of determining the internal rate of return



Resource: I.Šperanda (calculations made by the Author)

This method is superior to the previous ones in ranking the investments, but it contains two significant problems. The first one occurs due to the mathematical probability stating that complex projects with substantially different cash inflows and outflows basically generate two different internal rates of return. This happens due to different models and time of occurrence of cash inflows and outflows and it poses a rather big problem during the analysis. The other problem, probably more significant than the first one, is the problem of the practical choice between the investments that have considerably different net investment expenditures and their internal rate of return is contrary to the size of the project. Namely, if the internal rate of return on the investment of 100.000 Croatian kunas amounts to 15%, and on the investment of 500.000 Croatian kunas it amounts to 12%, and if the rate of return required by the management amounts to 10%, then we face a dilemma whether to choose bigger absolute returns with a lower rate of return, or vice versa: to have smaller absolute returns with a higher internal rate of return.

4. RISK MANAGEMENT IN A DYNAMIC ENVIRONMENT

We define the risk in general as a probability of damage (Hagstrom, 2008.,181.), loss or threat. To be under the risk means to be an entity subject to damage generated by a process or an activity, and the degree of risk presents the probability of occurrence of such a negative event.

Since we are interested in business risks in the area of investment, we speak of the financial risk of an investment. The financial risk of an investment presents the risk of failing to cover the fixed costs, that is it poses a doubt that the achieved financial result will not cover the interest rate on the liabilities of a company, i.e. it will not cover the basic fixed costs. Therefore, the risky investment points to the certainty of the absence of the Guarantee contribution 1., which is not acceptable (Luković-Lebefrom,2013.,208.) Certainly, the very

occurrence of the financial risk creates an aversion towards the risk, since from the aspect of the investor, the increasing of risk has a diminishing utility. A number of issues arise here requiring an answer. Whether or not to get into an investment and take the risk is the central issue to which the investor requires a reply. This issue appertains to the area of the tasks of a controller, and therefore we will explain in what way we have obtained an answer to this issue.

Running a business in a turbulent environment imposes the acceptance of taking risk as a business fact. Each economic activity bears in itself a degree of risk, each business decision is risky, which means that the risk of business conditions is to be accepted. The very fact promotes the development of Risk Management and the existence of business operation at all levels. The success of Risk Management depends on a variety of factors, which are as follows:

- a) Predicting future risk – a quality prediction provides a possibility of preparation, selection of an adequate strategy for mitigating the impacts of the negative event, and the company thus acquires the competitive advantage.
- b) Identifying and analysing the quality of risk – the type of risk is to be clearly recognized, and the analysis is to be carried out in order to identify its structure.
- c) Risk quantification – determining the force of the negative event, as well as the area, which is a prerequisite for the preparing and selecting of activities designed to reduce it to an acceptable level.
- d) Risk response – if the three previous phases have been completed, the management can design adequate activities necessary to reduce the impact of the negative event to an acceptable level.
- e) Risk monitoring and control – the control and monitoring of risk leads to its gradual elimination, that is the resuming of a successful running of business despite the presence of a negative event.

By a timely knowledge of the forthcoming negative event, it is possible not only to prepare for minimizing the damage to the company, but to turn the situation to our advantage as well. For example, by means of a timely prediction of the crisis in the construction sector, for capable investors this can mean a good opportunity for development. In what way? The crisis in the construction sector, as seen from the aspect of the placement of buildings, such as apartments, is decreasing, as well as the price per square meter. The cost of labor is also decreasing, and in order to come out of the crisis, the previous construction cost calculation requires a reduction in the price of all the involved subcontractors. It also means that the one who has the money determines the price, which brings about significant savings. Therefore, it is beneficial to predict the crisis, wait for it, and when it comes start an investment. This is particularly true in the planning of new investments. Another case is when an adverse event has not been predicted on time, or the investment is underway, and therefore it is necessary to solve this problem. Therefore, the negative event, and the upcoming financial

risks are related to the changes in market prices. In this very segment the classical doctrine of "pricing policy" in terms of growth and price reduction changes. Each change in the prices causes a war on the market in which many get hurt, that is the change in price under the influence of the global market is a sign of the beginning of a crisis. Yet, how should one decide on the investment under the current environment conditions?

5. RISK MANAGEMENT OR HAZARD?

Each entry in a risky investment for which the incoming negative impact has not been assessed, is an unreasonable acceptance of risk that is a hazard. In which case we can say that it is reasonable to accept the risk and in which one that it is unreasonable? There are two basic levels of capital investment decision-making that need to be observed :a) National - commercial level, and b) Corporate – commercial level. Each of them is to be addressed. The national-commercial level of knowledge about the degree of risk is particularly present at the present time. However, regardless of the globalization, each investment is carried out within certain national terms and regulations that bear high risk. The national risk is recognized by the credit risk assessment agencies, which is a risk assessment of an investment. Investment risk presents trust in the environment where the investment is to be implemented. The question is how to solve this issue, and how to obtain trust from the potential investors. At the global level, the Thurow's Theory of Punctuated Equilibrium is confirmed, which means that we should expect a further development of economies in transition (Thurow, 1996th, 279) Many factors suggest that this is realistic to expect that, but the fact that there is a high degree of uncertainty at the national level repels potential investors. How can we solve it? Angela Merkel said: "Look at us, but do not copy us" (Fidler, 2012., 4) What does it mean? In this time of crisis Germany has showed the strength of its economy and of its economic and political system . The present strength of Germany's economy, as seen from the national-commercial aspect, lies in its establishing a system that gives the investor a high degree of security. It is a system that has managed to prevent corruption, protect creditors' legal rights, the system that is not familiar with the term "not settled claims", and most importantly, it protects the investment. There is a series of state laws that provide investors with a refund in case the investment fails, and his investment is greater than 1 million EUR, or he participates in the investment with more than 5%. Many other laws, behavior patterns, compulsory control and monitoring of investments, as well as the obligation to organize a quality Risk Management, are unknown to the economies in transition. Standardization is also one of the forms of investor protection and obtaining a quality investment. Standards are established at all levels, such as international, continental, national, group level and company level, that give them market prestige. Germany has special laws and standards that determine Risk Management, as well as the operation conditions, procedures and organization, and control is implemented

without exception. The same is with the USA, where the American companies have adopted safety standards for planning in Risk Management as ISP / IEC 27001:2005, which is the standard for the Security Information Management System (ISMS) (Encyclopedia of Management, 2009, 117) Standards implemented within an organization provide the organization with a competitive advantage. For example, Mercedes-Benz has its own quality standards that guarantee high quality brand cars to their customers. In support of Risk Management, we can say that all the companies in Germany, as well as their public administration have introduced both Risk Management and Controlling. Controlling contributes to the following: (1) forecasting of upcoming negative events, (2) scanning of the risk structure, (3) assessment of its impact, as well as of the areas of negative impact, and what is more important, it helps in decision-making and planning in risk conditions. At the same time, Controlling is developing new methods and tools designed to calculate the level of risk, and thus making decision-making a success, not a hazard. Those exact conditions of the activity of Controlling in the domain of Risk Management help the management in making sound decisions within the limits of acceptable risk, distinguishing it from the hazard. Therefore, the financial risk is a part of our everyday life and it is a factor of every decision made in the investment process. The question of how to treat and manage investments in time of crisis still remains unresolved. Firstly, after recognizing the emerging negative events and determining the risk structure, it is necessary to make an investment decision, and then to set up an investment plan with a clear objective.

6. INVESTMENT DECISION-MAKING IN A RISKY ENVIRONMENT

Besides the common standard deviation as a risk measure, we can also carry out the analysis of sensitivity that basically replies to the question: what if? Therefore, it states what will happen if some of the parameters change for specific values.

If we start with a simple definition:

$$R = \frac{((CxV) - T)}{I} \quad (2)$$

Where:

R=result of an undertaking

I=investment in the undertaking

V=volume of impacts of the undertaking

T=total costs of the undertaking

C =impact unit price

If for a given I value the other values are completely determined, i.e. each one has only one possible value and r , that is the final result of a business undertaking is completely determined. However, it is improbable, if not impossible for all the presented parameters to have only one value. It is far more probable that each of the said values can be presented by means of probability distribution.

The said analysis of sensitivity is applied in case all the variables have more final values, i.e. this method is used in order to determine the degree of accuracy for each data with the aim of achieving the real optimum.

Let us assume that for a certain investment in an undertaking (I) there are „ V_i “ probabilities of impact volumes, for „ i “ of $1 \dots n$.

Each „ V_i “ has one price distribution „ C_{ij} “ which is related to them by „ j “ of $1 \dots m$, and it has one total cost distribution „ T_{ik} “ with „ k “ of $1 \dots p$.

Each „ V_i “ has one value „ v_i “, and it is
$$\sum_{i=1}^n V_i = 1 \quad (3)$$

Each unit price „ C_{ij} “ has the value „ v_{ij} “, which results in
$$\sum_{j=1}^m C_{ij} = 1 \quad (4)$$

It is logical that each „ T_{ik} “ has one value for „ v_{ij} “ so that it is
$$\sum_{k=1}^p T_{ik} = 1 \quad (5)$$

In this way we can calculate the pure result at each level of volume of impacts for any amount of cost and price that are related to that level of impacts, so that for a certain level of „ i “ and „ j “ we have:

$$R_{ijk} = \frac{(V_i C_{ij})}{I} \quad (6)$$

The probability of „ R_{ijk} “ is $V_i P_{ij} C_{ijk}$, so that out of all the possible results of an undertaking we can establish a single distribution and assess the probability of each result.

After analyzing of the concept of risk as a key element in planning and monitoring of investment projects, the fundamental methodological assumptions for the operational planning of investment projects can be established. Those assumptions are also the prerequisites that the methodology of such a planning needs to meet in order to enable a professional and adequate investment analysis. Drafting of analytical and synthetical studies within the comprehensive investment research requires a certain organization of work with the procedures explained, as well as with their sequencing and the subjects participating in the

process. In order to enable an adequate implementation of organizing in the investment project planning process, that is in order for the sequence of procedures to be able to reflect the logic, principles and criteria of the planning, it is necessary to assign the experts within the workgroup who will draft the investment study. From the afore-mentioned, it is clear that the investment as an integral process of planning, implementation and control is seen as interdisciplinary, which presupposes teamwork. It is not possible to enumerate all the professionals and professional fields that should participate in the planning of an investment project, because it depends on the specific features of each individual investment undertaking. However, regardless of the specific features occurring in practice, the experience shows that in the process of planning and implementation of an investment undertaking there are often some issues that arise from the following areas of expertise, such as: social, technical, economic and legal area.

It needs to be emphasized that beside the above-mentioned issues, some issues from the other areas of expertise can arise, which shows that it is essential to involve the experts from those areas, as well. Therefore, the specific features of each investment undertaking determine the selection and combination of experts engaged on the planning of an investment undertaking, and in this case only the interest of a proper planning can be applicable.

The investment planning is carried out for the purpose of a future undertaking, which shows that when budgeting one is to take into consideration the allocation of costs, i.e. the costs that an investment has incurred or not with regards to its regular business. Thereby, the phase of investment decision-making is essential. The role of a Controller in making an investment decision is major. His calculations offer answers to a range of questions that keep arising, and if we avoid them we are close to the decision-making under risk.

7. CONCLUSION

Today business decisions are made under conditions of uncertainty and high risk rate. Since these two concepts are often confused, it needs to be emphasized that risk is a state in which the possible outcomes of making a certain decision are known, and the probability of the event can be assessed. On the other hand, uncertainty is the state where as a result of a certain decision an entire array of various outcomes can occur, and the probability of which is completely unknown. Therefore, we can say that the uncertainty is rather a subjective phenomenon, while the risk is an objective phenomenon that assumes a relevant knowledge of the alternatives.

Thus, it is essential to determine the level of risk that, as a measurable and manageable category a business decision, that is an investment decision will fail to achieve the expected return/profit. In the same way we can consider the planning of an investment as an important part of the business process and an

essential part of the management process within an organization. In order to achieve an adequate planning it is important to have as much trustworthy and quality input data as possible. With respect to its character and consequences, the investment planning process, i.e. the drafting of investment studies and assessment of a specific investment is so wide and comprehensive that it is necessarily interdisciplinary, and it relies on the Controlling function of each organization.

A detailed, realistic and professional investment planning and its continuous control and improvement reduce business risks significantly, but unfortunately they cannot remove them completely.

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EXCHANGE RATE AND PUBLIC DEBT IN CENTRAL EUROPE

JEL classification: F31

Abstract

In the present paper – following a preceding investigation in 2012 – I investigate the way the most important macroeconomic and economic policy factors have influenced the equilibrium exchange rate of the Central and South Eastern European currencies in the last decade. I am endeavouring to compare the price fluctuations of foreign exchange markets in the eurozone and 15 emerging economies. I take advantage of the concept and methodology of fundamental and behavioural exchange rates theory. I examine in a panel regression framework how productivity, interest rate differentials and monetary variables affect nominal and real exchange rates and then compare the result with individual countries' analysis based on the methodological guidance offered by ECB (2004). Empirical tests suggest that higher than average public debt largely influences the market value judgement of currencies and explain long run tendencies. I also point out that emerging markets' data raise a lot of methodological problems.

Keywords: nominal and real exchange rates, public debt

1. INTRODUCTION

The goal of the paper is to reveal the long-run relationship between nominal and real exchange rates and macroeconomic fundamentals in a panel of 15 Central and South (Eastern) European countries with close economic ties to the eurozone for the years following the introduction of the common European currency.

When estimating long-run relationship between exchange rates and macroeconomic fundamentals the general problem regarded as starting point is why PPP based real exchange rate deviates from one or a constant, what factors make the long run exchange rate follow different path than that marked by the purchasing power parity condition proposed by Cassel. Even in the original conception it was acknowledged that presuming that the law of one price holds, one needs to take account of – among others – the presence of transaction costs and temporary interest deviations. In the short run a reason for the exchange rate fluctuating around an equilibrium path can be the temporary difference between (real) interest rates of the two currencies based on the interest parity condition. Between a more and a less developed country such interest differential also appears in the long run which is manifested in the CHEER (capital enhanced equilibrium exchange rate) approach which combines purchasing power parity relations with uncovered interest parity, in which the difference in interest rates existing between the two countries is not interpreted as a simple short-term effect but as a persistent phenomenon. Furthermore, the PPP based exchange estimation is often – especially in the case of comparing the currency price of a less developed country to a more developed one – supplemented by the Balassa-Samuelson effect. This effect can better detect the productivity growth differentials prevailing between the two countries which accounts for the dissimilar price level development of the tradable and non-tradable (tertiary) sector goods and therefore explains long-run trends of real exchange rates. Égert-Halpern et al. (2005) question the Balassa-Samuelson effect whether it really exerts strong influence on the relative growth rate of the price level of two countries. The fact that tradable sector products might include non-tradable market-determined and regulated market components makes the question even more complicated. They conclude, nevertheless, that the dual (tradable and non-tradable) productivity differential – similarly to terms of trade and public consumption with less explanatory power – always has a positive impact on the real exchange rate in the studies focusing on exchange rate movements in the CEECs.

Most of the relating literature examines how real exchange rate behaves in equilibrium. The internal-external equilibrium conceptions – including fundamental equilibrium exchange theories (FEER) – were developed to define an exchange level (which can be interpreted mostly from a normative point of view), in that internal balance is underpinned by full employment and an output level at low inflation, whereas external balance is ensured by net savings and the corresponding current account identity under the given internal conditions

(Bouveret, 2010). The behavioral equilibrium exchange rate theory (BEER) – see Clark and MacDonald (1998) for instance – tries to explain the formation of real effective exchange rates determined by economic fundamentals and does not necessarily provide any economic equilibrium condition such as external balance or full employment. Behavioural equilibrium exchange rates, nevertheless, often have well-established results which can be used for explaining the deviation of exchange rates from their historically given equilibrium path, and therewith for a valid judgement on the explanation of the overratedness or underratedness of currencies. PEER (permanent equilibrium exchange rate) theories separate persistent long-run and medium-run effects (defining currency fluctuations along a business cycle) to interpret equilibrium exchange rates (Beza-Bojanowska, 2009). After calculating medium-run and long-run effects, exchange rate misalignment is then decomposed into the effects of transitory factors and random walk disturbances and the impact of the deviation of economic fundamentals from their long-run their sustainable values. While the models designed following internal-external equilibrium conditions or any economic relation among fundamentals usually lack a consistency in stock-flow measures and therefore raise numerous statistical problems, can still provide a good approximation of the medium-term level of equilibrium exchange rates. (Bouveret, 2010).

Égert-Halpern (2005) take advantage of a meta-regression analysis to reassess empirical findings and conceptional statements on equilibrium exchange rates and investigate eight new EU member states' exchange misalignment. They justify that different exchange rate theories (BEER, FEER, PEER) deliver different levels of currency misalignment and the methodology might also distort estimation results. As different methodologies and different equilibrium exchange conceptions provide rather diverse picture on countries' currency rate tendencies it is worth examining more economies in a panel framework to discover similarities in the relationship between macroeconomic fundamentals and exchange rates within a greater dataset consisting of various countries with possibly similar development characteristics. A panel estimation therefore seems to be reasonable when analysing exchange rates of emerging economies such as new and future EU members.

2. METHODOLOGICAL BACKGROUND

Before fixing exchange rates in a common currency area equilibrium exchange rate calculations are essential to avoid wrong determination of final values against the common currency. When assessing factors affecting changes in currency value of catching-up economies we can draw on the experiences of countries moving towards a monetary integration fifteen or twenty years ago.

Alberola et al. (1999) use panel cointegration techniques to identify time-varying equilibrium real exchange rates and bilateral equilibrium nominal rates in order to gauge whether EMU member countries' choice of fixed parity

towards the euro basket of currencies was well established before entering the eurozone in an internal-external equilibrium model. By defining an external balance as proposed by Frenkel and Mussa (1985) and an internal equilibrium condition of Balassa and Samuelson (1964) they decompose the exchange rate of a country into a ratio of the prices of foreign and domestic tradables and the price ratio of domestic tradables and non-tradables. They relate the concept of equilibrium exchange rate with that of cointegration on a sample of data consisting of the US dollar, the Canadian dollar, yen and the eurozone countries' former currencies and opt-out EU countries' currencies. They explain equilibrium exchange rates with net foreign asset data (as a sum of current account balances) and an index of relative sectoral prices' (as described by the above price ratio) impact on exchange rates. With this methodological solution they were able to conclude that the dollar was overvalued towards the euro at the beginning but the four major currencies were well locked to the common currency at the time of the creation of the eurozone.

Exchange rate estimations usually emerge when discussing Central and Southern Eastern European Countries in the context of how to define the right equilibrium exchange rate for the time of new EU countries' entrance to the ERM II. Apart from the difficulty in accessing data on these countries an important issue to be addressed is the strong undervaluation of these currencies after the shift to market economy. Despite the disputed sectoral Balassa-Samuelson effect at least the question of productivity differentials can not be disregarded if emerging economies' exchange rate is discussed. In a cross-sectional interpretation the gap between PPP based and nominal exchange rates can be well approximated by productivity indicators. The ECB (2004) provides a methodological overview on how to tackle this problem and first of all recommends the usage of a panel data framework. By estimating the behavioural exchange rate of emerging countries one have to cope with problems of missing and extremely volatile data. For a better estimation the ECB (2004) proposes first of all that instead of assessing what factors affect long-term exchange rates in a country-by-country analysis it is more advisable to use a panel framework with economies of similar size and of similar macroeconomic fundamentals. With a more extended database the estimation results will significantly improve, however, the inclusion of too many different economies might also lead to false conclusions. In their two-step method one should first select a panel of market economies with long history and reliable data and use the intercept and other parameter values of the cointegration panel of these countries' data to test emerging economies' statistics one by one by extrapolation. For the panel group of advanced economies first the presence of cointegration should be tested then it is worth using more estimation methods such as dynamic OLS or pooled mean estimations.

Hassan and Holmes (2012) was investigating less developed markets to detect the relationship between income remittances and the real exchange – defined as ratio of tradables and non-tradable price indices – in a panel data

analysis. Apart from the two variables under examination they included real GDP per capita, government expenditure, terms of trade and six-month US interest rate. They found some evidence for income remittances causing real appreciation in the home country in the long-run.

3. EMPIRICAL RESULTS

Drawing on previous research results I analyse the quarterly time series of the nominal exchange rate of the euro expressed in units of national currency and the real effective exchange rate – where applicable – for a panel of 15 Central and Southern European countries. The examination period spans the years 1999-2012. The period is first of all determined by data availability but is also important to note that by 2000 a significant real appreciation of these currencies had taken place (ECB 2004) and a less strong positive tendency, if any, has continued until today.

Data were collected from the IMF IFS, Ameco and Eurostat databases. The idea behind also using nominal data was to trace the relationship between the exchange rate and inflation as well as financial market processes as proposed by the underlying theories of exchange parity conditions. Among the selected countries under examination some maintain or maintained fixed exchange rates which of course means that countries with rigid exchange regimes (such as the Baltic countries and Bulgaria with their currency board system) serve as control group for the analysis. Similarly those Central European countries which have acceded the eurozone (Slovenia, Malta, Cyprus, Slovakia and Estonia) have had no fluctuation in their currency rates against the euro but still have their own real effective exchange rate data. Major deficiencies in the dataset appeared in the case of Croatia, Serbia and Turkey, therefore I had to, for instance, estimate productivity statistics based on national (annual) labour market survey for Serbia (SORS, 2012) and use mixed values of IMF and Eurostat statistics for Turkey and Croatia. Croatian and Serbian exchange indices were missing in Eurostat and therefore replaced by bruegel.org (2012) on the basis of the methodology of Darvas (2012).

Based on earlier research I use a basic relation which I earlier tested on the data of value of the euro against the Hungarian and Polish currency and the USD-euro exchange rate (Vámos, 2012). The starting equation suggests an equilibrium exchange rate that evolves under balance of payment equilibrium in its original form described by MacDonald (2000):

$$s_t = \alpha_0 + \alpha_1(s_{t-1}) + \alpha_2(p_t - p_t^*) + \beta_1(y/emp_t) - \beta_2(y/emp_t^*) + \gamma_1(i_t - i_t^*) + \gamma_2(debt_t) + u_t \quad (1)$$

where s_t denotes the period t (and s_{t-1} is the $t-1$) nominal exchange rate, p_t is the period t inflation, y/emp_t is the productivity (GDP/employed persons), $debt_t$ is the

public debt to GDP ratio, i_t is the 3-month money market rate and u_t is the error term (variables marked by an asterisk stand for the same variables of the foreign sector). With the inclusion of the public debt-to-GDP variable I presume that countries suffering under the disadvantages of enormous debt services payable observe a depreciation of their currencies mainly in times of global financial crises when investors tend to be more risk averse than under more stable world market circumstances. (It replaces net foreign assets when explaining financial account processes). Productivity data, inflation and interest differentials reflect deviations from eurozone average (changing composition) statistics. Because of difficulties in data availability of quarterly tradable and non-tradable price indices I do not control for sectoral effects within the internal economy, only for external price competitiveness with the help of terms of trade indices.

In the first step I calculated the gap between real exchange rates and nominal exchange rates against the euro area for 1999 and 2006 in a cross-sectional dataset.

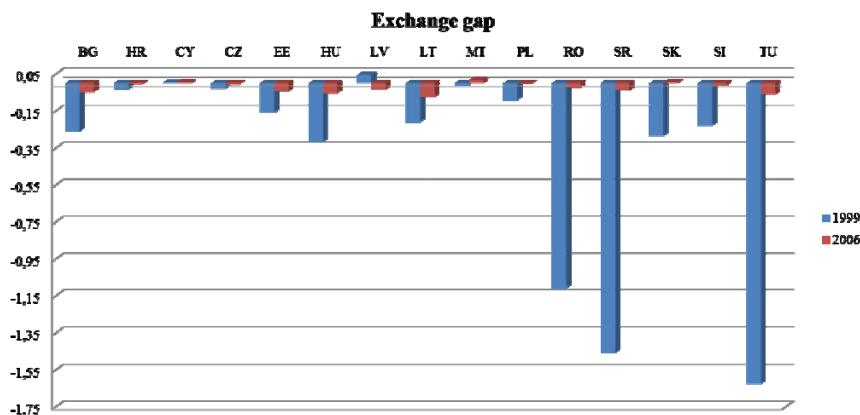


Figure 1 Gap between real and nominal effective exchange rates

Notes: BG=Bulgaria, CY=Cyprus, CZ=Czech Republic, HR=Croatia, EE=Estonia, HU=Hungary, LV=Latvia, LT=Lithuania, MT=Malta, PL=Poland, RO=Romania, SR=Serbia, SK=Slovakia, SI=Slovenia, TU=Turkey

Source: AMECO, bruegel.org, 2013, author's figure

The exchange gap was still significant in 1999 and had moderated by 2006 which was the last year when all these countries kept up independent currency regimes. By approximating exchange gap in the two selected years by GDP per capita PPS and GDP per employed person (in PPS) we find strong link between the different measures of productivity and a remarkable elasticity in 1999 especially if we use a dummy for countries with currency board. In 2006, however, as the gap is getting narrow, the elasticity significantly reduces and also R^2 figures decline, moreover, the dummy appears with a negative coefficient.

	1999		2006	
	<i>without dummy</i>	<i>with dummy</i>	<i>without dummy</i>	<i>with dummy</i>
GDP/capita	coefficient		coefficient	
	0,750727 (0,03171)	1,10893 (0,00124)	0,0425218 (0,06240)	0,034884 (0,08174)
	adjusted R ²		adjusted R ²	
	0,254929	0,562694	0,183890	0,388288
GDP/employed person	coefficient		coefficient	
	0,706739 (0,04282)	1,07463 (0,00199)	0,0492247 (0,04731)	0,031385 (0,21040)
	adjusted R ²		adjusted R ²	
	0,223901	0,528468	0,213413	0,305612

Table 1 Gap between real and nominal effective exchange rates

Source: AMECO, bruegel.org, Eurostat, IMF, SORS, 2013, author's calculation

During the computation of the regression (with OLS) I employed the logarithmised values of data indexed to the average of 2005 for quarterly time series as Eurostat publishes real effective exchange rates and productivity indices with a base index of 2005. I also inserted a crisis dummy variable to control for above average exchange shocks between 1999 and 2000 as well as 2008 and 2009. These variables are applied to explain major speculative attacks and the global financial crisis. Euro introduction and currency board countries were also controlled for.

I conducted the testing of nominal and real effective exchange rates by involving the dummies and inserting other fundamentals one by one. Among all explanatory variables applied in the model the productivity differential appeared with a characteristic positive sign in real exchange estimations but had to be replaced by trade balance to GDP data for testing nominal exchange rates. The currency board dummy was significant in both tests though with ambiguous coefficients (depreciating nominal exchange and appreciating real), eurozone entrance dummy seemed to appreciate nominal and less affecting real exchange, whereas the crisis dummy only had explanatory power for real data. Openness dynamics (measured as data indexed to 2005) makes currencies stronger in contrast with the results of ECB (2004), the level of public debt (its indexed dynamics were not significant), as suspected, accounts for a significant depreciation. The explanatory power of other variables involved in the models (terms of trade index, M2/GDP levels, interest differentials, euro growth and fixed capital formation to GDP levels) vary according to whether nominal or real values are explained. It is interesting to note, that interest differentials were involved in nominal terms and still approximate real values better. (Inflation

differentials only had significant coefficients in the case of the real effective exchange rates but were disregarded for methodological reasons.)

Nominal exchange rate

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
const	-1,12061	0,0914831	-12,2493	<0,00001
euro	-2,38463	0,103568	-23,0248	<0,00001
currency board	0,395861	0,0786269	5,0347	<0,00001
openness_dynamics	-0,665062	0,210346	-3,1618	0,00163
trade balance/GDP	-0,0116737	0,00402607	-2,8995	0,00384
debt/GDP	1,1173	0,178767	6,2500	<0,00001
terms_of_trade	1,46827	0,549641	2,6713	0,00771
M2/GDP	0,242523	0,0261471	9,2753	<0,00001

R-squared	0,472544	Adjusted R-squared	0,467894
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Real exchange rate

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
const	0,224078	0,0232622	9,6327	<0,00001
euro	0,0167882	0,0109465	1,5337	0,12553
currency board	0,031717	0,00828201	3,8296	0,00014
crisis	-0,024007	0,0095771	-2,5067	0,01239
openness_dynamics	0,0809191	0,0242199	3,3410	0,00088
GDP/employed differ.	0,364334	0,0268943	13,5469	<0,00001
debt/GDP	-0,167151	0,0200518	-8,3360	<0,00001
interest differential	-0,263474	0,0572918	-4,5988	<0,00001
euro_growth	-0,00986752	0,00174168	-5,6655	<0,00001
gross capital to GDP	-0,00515332	0,00075549	-6,8212	<0,00001

R-squared	0,453815	Adjusted R-squared	0,447406
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Table 2 Nominal (euro) and real (effective) exchange rate estimations in panel

Source: Eurostat, IMF, AMECO, bruegel.org, 2013, author's calculation

As last step I also conducted the panel regression for the exchange gap of real and nominal effective exchange rates against the eurozone countries. The results were in line with the above described findings and proved to be more robust than in the previous tests. Among dummy variables currency board and eurozone entrance remain significant, GDP per employed persons differential henceforward strongly contributes to real appreciation, just like openness

dynamics. Debt-to-GDP, interest differential, eurozone growth and gross capital formation to GDP remain important regressors decreasing the gap between real and nominal exchange rate. It is interesting to note that the indexed (and logarithmised with 2005 as basis year) terms of trade indicator appears with a strong positive sign increasing the value, whereas the level of openness (expressed as percentage of GDP) tends to decrease the value of national currencies in line with ECB (2004). The reason why also capital formation depreciates currency might be that capital invested in these countries mostly flows in in the form of FDI and because of profit remittances abroad finally decreases the real value of the national currency.

Exchange gap

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
const	0,239912	0,0208333	11,5158	<0,00001
euro	-0,0373973	0,0113542	-3,2937	0,00103
currency board	0,0191337	0,00814469	2,3492	0,01907
GDP/employed differ.	0,413638	0,0272093	15,2021	<0,00001
openness_dynamics	0,22452	0,0264783	8,4794	<0,00001
debt/GDP	-0,101194	0,0185827	-5,4456	<0,00001
interest differential	-0,677907	0,0604447	-11,2153	<0,00001
euro_growth	-0,0104817	0,00158891	-6,5968	<0,00001
grosscapital to GDP	-0,00317091	0,000571369	-5,5497	<0,00001
openness (to GDP)	-0,0544974	0,0109716	-4,9671	<0,00001
terms of trade	0,5049	0,0640661	7,8809	<0,00001

R-squared	0,618530	Adjusted R-squared	0,613471
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Table 3 Exchange gap estimations in panel

Source: Eurostat, IMF, AMECO, bruegel.org, 2013, author's calculation

4. CONCLUSIONS

After a period of strong devaluation of Central and South (Eastern) European currencies, mainly due to economic transition and political shifts, by 2006 these countries currencies' have strongly converged to their market value as suggested by the mitigation in the gap between real and nominal effective exchange rates. Based on BEER exchange estimation we have a great abundance of variables with possible significant effect on emerging countries' exchange rates. Among the macroeconomic fundamentals having most significant explanatory power on long-term exchange path productivity and interest differentials, public debt-to-GDP ratio, openness can be identified as best fitting ones. The OLS framework used in the present analysis, however, suffers from

numerous methodological discrepancies, which makes it reasonable to continue the research with the above data in a panel cointegration framework to set up a model capable of forecasting and provide a reliable judgement of the possible over- and underratedness of currencies.

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MIGHT FINANCIAL SOURCES BE A PROBLEM IN THE FINANCING OF PUBLIC INVESTMENT? THE THEORETICAL AND EMPIRICAL STUDY¹

JEL classification: G19

Abstract

Municipal investments and related expenditures are an important field of activity at the subnational government tier. There are many ways of financing public investment tasks using different financial structures. However, the key role involves financial risk and other factors which determine access to financial sources (inter alia types of investment, debt limit, purpose of financing, collateral, risk, efficiency). The purpose of this article is to point out the main obstacles and challenges in the financing of municipal investment. In the research process revenues, transfers, and debt instruments have been considered. The author has also paid attention to a hybrid form of financing which integrates different kinds of instruments. As a result, the paper presents the crucial problems in investment financing which influence the investment dynamic and financial decisions made by self-government entities. The general findings are regarding: debt limits and debt policy, a revenue system which is not sound, poor experience in using structural and hybrid financing, problems with cash flow and the maturity of financial instruments, financial standing and public procurement law.

Keywords: *self-government, investment, financing*

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1. INTRODUCTION

From a financial point of view, public investment offers alluring benefits but also creates costs. According to D. A. Aschauer, there is a strong link between public and private investment spending. Movements in public investment bring forth movements in private sector outputs that mean the public spending raises the private sector productivity (Aschauer, 1988, p. 178). On the other hand, public investment might result in the crowding out effect, which is balanced by a crowding in action and this tends to raise the demand for the infrastructural services accumulating public capital (Ramirez, Esfahani, 1999, p. 3).

The relationship between public investment, productivity, economic growth and development make it one of the most important instruments of fiscal policy and the global challenge (Improving, 2012). The OECD estimates that between 2006 and 2030 investment in infrastructure will exceed 57 trillion euros (2.4 trillion annually, improving, 2012). The question is how to finance it in the conditions of the unbalanced public budgets (with extensive deficit and debt problems) and the tightening of banks' prudential regulations.

B. Eichengreen claimed that "with the lack of infrastructure limiting finance and the lack of finance limiting infrastructure investment countries can find themselves in the low-level equilibrium trap from which it is difficult to escape" (Eichengreen, 1994, p. 1).

Nowadays, the problem is not only the lack of public capital and debt regulations but also limited access to private capital and to the financial market. Additionally, there are many internal obstacles excluding public entities from applying to external financial sources.

The goal of this paper is to overview the main difficulties in municipal investment financing (especially infrastructural). The considerations presented in the article concern the problem of investment financing and point out the role of different means of financing; especially grants, transfers and debt.

The paper is organized as follows. The first section presents theoretical considerations regarding financial sources of municipal investment; the second section is devoted to the methodology of the research and the last part discusses the results of the survey and presents the conclusions of the study.

The literature overview concerns the problem of the general rules of financing and financial sources of public investment (municipal investment projects case). Special attention has been paid to the difficulties related to grants, transfers, own revenues and debt financing.

The theoretical and practical analysis of financial sources has been divided into two groups: own sources and borrowing instruments. Every kind of financing has been considered from the perspective of the difficulties of using it.

2. THE FINANCIAL SOURCES OF MUNICIPAL PROJECTS - THEORETICAL CONSIDERATIONS

There are many financial sources and a lot of models of financing the municipal investment which differ between countries. Municipal infrastructure is one of the most commonly financed municipal investments. It is defined as “buildings, structure, facilities, equipment, rolling stock, land and furnishings needed to provide municipal services” (Tomalty, 2007, p. 3). In this context, the financing of such projects is a crucial problem because of the limitation of the budgetary finance at the local self-government tier.

It is worth mentioning that there are two kinds of revenues financing municipal projects; the first one that might be used for the full range of investments (inter alia property tax) and the second one which can be provided only to a specific type of projects, such as road infrastructure (fuel taxes) (Tomalty, 2007, p. 3).

The other classification highlights the problem of the own-revenues and general borrowing in financing infrastructure and the financial models linked to it, defined as pay-as-you-use (debt) and pay-as-you-go (cash) (Wang, Hou, 2009, p. 90-107). According to this approach, debt limits and types of own revenues are very important. Depending on the state and their legal debt restrictions, there might be soft, hard and fiscal autonomy of sub-central government determining the value of the own revenues at the local tier, which could be high or low (Blöchliger, Robesona, 2009, p. 4).

An interesting approach is presented in the work of K. Tóth and B. Dafflon, who have focused on the difficulties in using grants, transfers and own revenues for financing local infrastructure (Tóth, Dafflon, 2006, p. 5, see Table 1).

Table 1

The difficulties linked to the financing of municipal infrastructure with grants, transfers and own revenues

Type of financing	Difficulties
Conditional grants and targeted investment subsidies	Poor predictability, “free of charge” grants, availability of grants which are out of the authority of local entities; in some countries, grants cannot be used in on-going projects
Intergovernmental transfers and general grants	Rules of revenue sharing are changed very often; local government depends very heavily on the national tax office; transfers are subject to annual changes in the budget
Revenues from privatisations	Running out of assets, reducing the potential for the future, cash flow might not be sufficient to cover costs of investment projects
Local taxes and fees	Local governments are reluctant to raise local taxes and fees, small entities have little revenue from this source,

	interregional taxbase is not equal
Foreign grants-in-aid	Co-financing requirements, ex post reimbursement, strong project capacity needed
Public-private partnerships	Efficient for a single project but cannot ensure financial basis for the entire infrastructure

Source: K. Tóth, B. Dafflon (2006). Managing local public debt in transition countries: An issue of self-control? Paper prepared for the 14th Annual Conference of the Network of Institutions and Schools of Public Administration in Central and Eastern Europe (NISPAcee), Ljubljana, May 11-13, 2006, p. 5

Similarly to grants, transfers and own revenues, access to debt financing is also limited, especially by the debt limits. R. Singh and A. Plekhanov conducted an in-depth study of the debt regulations in different countries (Singh, Plekhanov, 2005, p. 11). The main debt regulations are presented in Table 2.

Table 2

Subnational borrowing regulations

Restriction	Types and number of countries				
	Total	Emerging	Industrial	With bailout history	Without bailout history
Unrestricted	13	5	8	6	7
Self-imposed rules	3	1	2	1	2
Centrally imposed rules	12	6	6	4	8
Administrative	15	13	2	7	8
Cooperative	9	2	7	4	5
Total	52	27	25	22	30

Source: R. Singh, A. Plekhanov (2005) How Should Subnational Government Borrowing Be Regulated? Some Cross-Country Empirical Evidence. International Monetary Fund Working Paper WP/05/54, Fiscal Affairs Department, p. 11.

In the global market economy, subject to the conditions of extensive deficits and debts, conventional wisdom regarding financing municipal investment projects has been revisited and a lot of attention is nowadays paid to the innovative funding mechanism (Tomalty, 2007, p. 3). Innovative funding mechanism is based on traditional financial sources and includes a mixture of them (borrowing is based on revenue from a specific source or development charges etc.).

Worth mentioning is Land Value Capture mechanism (LVC) which integrated such techniques of financing as land value taxation, negotiated

exactions, tax increment financing, special assessments, joint development, transportation utility fees and air rights (Medda, Modelewska, 2011, p. 11-12). Nowadays, LVC might be an alternative for debt financing, especially in the conditions of increasing debt restrictions and difficulties in public-private partnerships financing.

3. METHODOLOGY

The study is based on the survey and the case study analysis. The survey encompasses 114 entities representing the municipal tier of Polish self-government located in the region of Western Pommerania. The municipalities in Poland have the highest level of financial autonomy; however, it is still limited compared to federal or regional countries. To collect the represented data base, the CATI and CAWI methods have also been implemented. The results of the study were:

- the diagnosis of the most commonly used financial sources;
- the identification of the crucial difficulties in using each financial source;
- a proposal of ways of improving the efficiency of investment financing.

Three kinds of municipalities have been analyzed; rural, urban and rural-urban (Table 3). The response rate reached the level of 64%.

Table 3

Types and structure of the reviewed entities

Kind of municipality	The number of entities	Percentage of the sample
Rural	34	47%
Urban	33	45%
Rural-urban	6	8%

Source: own data, survey, M. Ziolo: Modelowanie źródeł finansowania inwestycji komunalnych a efektywność wydatków publicznych, CeDeWu, Warszawa, 2012, p. 217.

Survey questions were of the closed type, mostly with the use of weights for individual variants' answers. Identification of the study sample was made by identifying the variables, such as:

- the type of community (rural, urban-rural, urban);
- the budgetary revenues executed by the municipality in the past three years;
- the overall structure of budgetary revenues;
- the level of municipal investment in the last three years;
- the types of major capital expenditure carried out by the municipalities (Ziolo, 2012 p. 217).

In the group of municipalities surveyed, 34.25% (25 municipalities) of entities had budgetary revenues at the level of 5001 thousand zlotys to 15000 thousand zlotys. Those which did not exceed revenues of 5000 thousand zlotys in the last 3 years constituted 8.22% (6 municipalities) of the research sample.

The largest share in the examined budgetary revenues had the own sources, subventions and state grants.

The largest amount of capital expenditures in the surveyed municipalities was allocated to finance road projects (municipal roads) spending on average 26.57% of the total investment. Another group of capital expenditures related to funding (Ziolo, 2012 p. 219):

- water and sewage projects (approximately 25.29% in the structure of investment spending in total);
- educational infrastructure (average 14.78%);
- tourist infrastructure (average 7.63%);
- social housing (approximately 4.42%);
- property infrastructure (average 1.99%);
- the infrastructure of health care (average 0.43%).

In the structure of liabilities of the surveyed municipalities, credits dominated, with an average share in the structure of 44.16%, followed by securities (average 16.11%) and loans (average 8.75%).

4. STUDY RESULTS AND DISSCUSIONS

The first part of the study was focused on the structure of the financial sources which are used to finance the capital expenditures executed by the reviewed municipalities. The research has taken into account the most popular financial sources belonging to such categories of financing as: grants, transfers, own revenues and debt financing. The structure of the answers is presented in Table 4.

Table 4

Main financial sources involved in the financing of the municipal investment

Type of financial source	Percent of answers	Number of municipalities
Bank credits in zlotys	75.34%	55
European Union funds	67.12%	49
Capital revenues	60.27%	44
Preferential credit from bank and public funds	49.32%	36
Grants from state budget	46.58%	34
Local taxes and fees	32.88%	24
Bonds	23.29%	19
Foreign grants-in-aid	10.96%	8
EBI, EBRD credits	8.22%	6

Source: own data, survey, M. Ziolo: Modelowanie źródeł finansowania inwestycji komunalnych a efektywność wydatków publicznych, CeDeWu, Warszawa, 2012, p. 223.

According to the survey data, the most popular source of financing for municipal investments is bank credits in zlotys and European Union (EU) funds. That, of course, is not surprising because since 2007 Poland has been the most significant beneficiary of aid from the EU budget (over 80 billion euros of financial support was put at Poland's disposal in the period 2007-2013) and Polish self-government entities are the most active units which absorb and spend the most EU money. Bank credits have been the most popular way of financing the municipal investment project since 1990. The zloty as the currency of credit is determined by the Polish Public Finance Act, which limited the possibility of issuing debt in other currencies under specified requirements (Ziolo, 2012 p. 224).

Preferential credits and grants are also significant sources of financing, especially for projects regarding environmental protection and the water and sewage system. The low level of local taxes and fees in investment financing reflects the problem of the limited fiscal autonomy of the municipalities which have hardly any impact on the cash flow from local taxes and fees. The other problem is that local taxes and fees are not sufficient to cover the current budgetary tasks, so the municipalities are forced to gain money from fixed assets. There is still a potential in using such financial sources as private capital, revenue bonds, forfeiting and securitization.

The municipalities taking part in the research sample were aware of the benefits and threats of debt financing; especially, they pointed out such issues as: the financial leverage effect, the liquidity and insolvency threat, the roll-over problem and decreasing credit value after issuing debt.

The next step was to diagnose the crucial difficulties related to every kind of financing. The most significant obstacles are characterized for each financial source presented in Table 5.

Table 5

Main financial sources involved in the financing of municipal investment

Type of financial source	Difficulties	Number of answers
Bank credits in zlotys	Financial cost	22
European Union funds	Red tape, formal requirements	43
Capital revenues	Efficiency, running out of assests	16
Grants from state budget	Limited access, poor predictability	46

Local taxes and fees	Little revenue from this source, interregional taxbase is not equal	36
Bonds	Financial cost, lack of knowledge about financing	26
Private capital	Strong project capacity needed	13

Source: own data, survey, M. Ziolo: Modelowanie źródeł finansowania inwestycji komunalnych a efektywność wydatków publicznych, CeDeWu, Warszawa, 2012, p. 242.

The survey data presented in Table 5 reflects the difficulties in financing pointed out by K. Tóth and B. Dafflon (Tóth, Dafflon, 2006, p. 5). The crucial problem regards the formal aspects of involving grants and EU funds in the financial structure of the investment projects and the efficiency of own revenues.

The little knowledge of the local authorities about the bonds makes this kind of financing useless in practise from the reviewed municipalities' point of view. The shortage of local taxes and fees is another problem which determines the access to this kind of financial instrument which demands cofinancing. The shortage of own sources determines the level of operational surplus which is one of the indicators impacting on the potential for issuing debt.

According to the survey, there is still a place for private capital in the financing of the municipal infrastructure. However, the main obstacle related to public-private partnerships (PPP) is finding suitable kinds of investment projects which might be executed in the PPP model. The big cities are usually interested in PPP and the reviewed sample consists of rural and urban-rural entities. The second obstacle is the financial risk and financial cost which might outweigh the benefits of PPP. The problem raised very often by the municipalities was the lack of experience in PPP projects and, as a result, a shortage of best practise to share (Ziolo, 2012 p. 244).

The survey data may be surprising for anyone who is interested in project financing. No municipality was willing to undertake the investment as project finance. This type of transaction is quite new and innovative for the reviewed municipalities and no local authority has seen the potential of the project finance for financing municipal infrastructure.

The final part of the survey was focused on the most common problems with the financing of municipal investment. Three categories of factors were especially important in that field; the cost of financing, the payment schedule and cash flow. In the process of selection of financial sources, the most common problem was a too-conservative (PAYG) or too-risky (PAYU) approach to building a municipal finance strategy. Both options create a certain risk and result in difficulties in financing.

In the case of excessive concentration on own sources of capital, the capital expenditure is much lower, the investment cycle is much longer and the ability of the investment community remains limited. In this case, however, the liquidity risk is minimal. However, too high a share of the debt in the financing structure may result in the loss of liquidity and the credit status of the

municipalities (negative financial leverage). The budgetary limitations and the high capital investment are the crucial factors responsible for issuing debt.

The surveyed municipalities do not have or do not see the problem of risk resulting from incorrect parameters of the financing structure. It might be partially justified by the statutory restrictions (Public Finance Bill), which regulate the issues of: the type of currency (denominated loans, foreign exchange rate), the capitalization of interest, discount, frequency of repayments of short-term expenditure declared state-funding shortfall of funds during the financial year.

The other difficulty was in maintaining the integrity between the investment cash flows and debt maturities and correctly identifying the criterion for choosing the external sources of financing. The first problem is a financial planning error which appears at the stage of the investment project budgeting and maintaining the required quality of the planning process. The role of the financial institutions which verify the budgets and financial plans in the process of credit worthiness assessment is important at this stage; in particular, the assessment of the budget and cash flows, the feasibility study and its assumptions and the repayment schedule adjusted to cash flow (Zioło, 2012 p. 246).

An important and more complex problem seems to define the criteria for selecting the correct source of external financing. The criterion of the financial cost (the lowest price) is dominant in public procurement. It is, however, worthwhile to exceed and verify the approach in the selection of external financing, especially the long-term nature of other factors, such as flexibility, availability, additional services and the existence of substitutes, which will allow for better management of local finances over a longer period of time.

5. CONCLUSIONS

The research carried out confirmed the existence of dysfunction in the financing of the municipal investment for the reviewed sample of entities. The interviewed municipalities had a sufficient level of knowledge and experience in the field of traditional instruments of financing and were able to properly use them. The lack of knowledge regarding innovative forms of financing makes it difficult to use the complex formula based on hybrid financing, such as PPP, project finance and market-based instruments such as securitization.

The detailed results of the study allow us to assume that:

- the high cost of capital is the major obstacle in credit and bonds financing;
- local taxes and fees are not a sufficient source for municipal investment financing;
- there is little space for the local authorities to increase their own revenues as a result of the legal regulations and the system of self-government financing;
- the budgetary grant system is malfunctioning and does not ensure the sustainable financing of municipal investment tasks (poor predictability problem);

- financial risk, lack of knowledge and experience are crucial obstacles in hybrid financing;
- municipal investment projects are very often not suitable for hybrid financing (size, risk);
- the financial cost is the most important factor in choosing a source of financing for municipal investment according to the Polish public procurement law;
- private capital is not commonly used as a source of municipal financing because of the cofinancing requirements and lack of projects meeting the requirements of such financing;
- the leading problem in the shaping of financial structure is the lack of coherence between investment cash flow and maturity of liabilities;
- the crucial item is to maintain a positive degree of financial leverage.

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THE EVOLUTION OF OWNERSHIP, INNOVATION AND FIRM PERFORMANCE: EMPIRICAL EVIDENCE FROM MACEDONIA

JEL classification: G32, O31, J24

Abstract

The aim of this paper is to investigate the relationship between ownership evolution, innovation activities and firms performance using firm-level data on 60 privatised enterprises in Macedonia for the period 2001-2010. To examine the nature of this relationship we will develop a model relating the determinants of ownership and performance and apply it to the original dataset collected by the author. Specifically, the investigation will respond to several questions such as the impact of ownership structure and innovation activities undertaken by firms, competition from other firms, sector, location, age, size and other firm characteristics on the firm performance. The main contribution of this empirical work is reflected in the application of new and advanced econometric techniques such as two-step GMM kernel and enhanced CUE (GMM) estimations to the analysis of changes in performance resulting from the change in ownership in Macedonia. By investigating this relationship we provide sufficient evidence to support the view of significant ownership-performance relationship of privatised firms in Macedonia.

Keywords: *ownership evolution, innovation activities, productivity*

1. INTRODUCTION

In all transition economies, the transfer of ownership to the private sector resulted in an initial dispersion of ownership amongst a large number of new owners, followed by a gradual concentration of ownership and a change in the type of dominant owner. The privatisation process was expected to change the incentive structure of the privatised firms, alter the behaviour of the management, make the firms more dynamic, and eventually lead to an improvement in their performance. The aim of this study is to explore the process of evolution of ownership structure and its impact on the performance of firms in Macedonia.

Many studies investigating the relationship between ownership change and firm performance have already been published. Three major surveys, Megginson and Netter (2001), Djankov and Murrell (2002) and Estrin et al. (2009), have reviewed most of these studies. Megginson and Netter (2001) assess the overall impact of privatisation in the transition and non-transition economies. Djankov and Murrell (2002) review over one hundred academic studies to sum up the experiences of the TEs of Central and Eastern Europe in the decade of 1990s. Estrin et al. (2009) evaluate the effects of privatisation in TEs and China, using additional studies not covered in the previous surveys.

The empirical literature on ownership-performance relationship covers two main dimensions of ownership change: concentration of ownership and the type of the dominant owner emerging in the post-privatisation period. The question of whether or not concentrated ownership is more conducive to performance improvement than dispersed ownership has received much attention in the ownership-performance literature. However, a consensus has not been reached over the nature of the relation yet. As for the type of dominant owner, there is also much discussion as to what type of dominant owner (government, insider owners, domestic outsider owners or foreign owners) will be more able to engage in restructuring measures and improve the performance of firms.

One of the benefits expected from the privatisation processes is its fundamental role in establishing new set of organizational dynamics that promote innovation and a change in production technology. The novelty of this study is that it extends ownership structure-firm performance models by incorporating the innovation behaviour of firms.

In the area of ownership-performance relationship the literature has generated surprisingly diverse findings and many results are questionable because of the failure of some researchers to control adequately for endogeneity of ownership and the selection bias. The issue of the endogeneity of ownership structure was raised by Demsetz (1983) and Demsetz and Lehn (1985) who point out that the owners of a firm adjust their ownership of shares according to the performance and other characteristics of the firm. As pointed by Demsetz and Villalonga (2001), studies that have failed to take endogeneity into consideration produce biased estimation. Therefore, the more recent literature on this relationship have been addressing these issues (Kapopoulos and Lazaretou, 2007;

Hashi and Shehaj, 2007). Furthermore, the theoretical and empirical evidence indicates that firms were not chosen to participate in the privatisation process at random. In TEs some firms were privatised earlier than others. This fact raises the issue of the selection of the firms to be privatised. Therefore, in studying the effects of privatisation, potential selection bias brought about by strategic sequencing needs to be understood and controlled for.

To examine the nature of this relationship we will develop a model relating the determinants of ownership and performance and apply it to the dataset of 60 firms over a ten year period. Specifically, the investigation will respond to several questions such as the impact of ownership structure and innovation activities undertaken by firms, competition from other firms, sector, location, age, size and other firm characteristics on the firm performance. The main contribution of this empirical work is reflected in the application of new and advanced econometric techniques such as two-step GMM kernel and enhanced CUE (GMM) estimations to the analysis of changes in performance resulting from the change in ownership in Macedonia, something which has not been applied before.

By investigating this relationship we provide evidence to support the presence of a significant ownership-performance relationship in privatised firms in Macedonia. The results also indicate that in Macedonia the ownership structure, be it diffused or concentrated, is impacted by innovation activities, nationality of owners, and other firm characteristics. Furthermore, being concerned with the impact of innovation activities on ownership structure and firm productivity our results indicate that the innovation activities undertaken by firms after privatisation are significant factors.

The study is structured as follows. The next section discusses the model specification and the measurement of the variables involved. Section 3 provides a statistical overview of the overall sample. Section 4 presents a statistical overview of the data on the evolution of ownership. The empirical results are elaborated in Section 5, first by providing empirical estimations of determinants of ownership and then continuing with their impact on firm performance. Section 6 summarises the findings and concludes.

2. MODEL SPECIFICATION AND THE MEASUREMENT OF VARIABLES

The investigation of the relationship between ownership structure and firm performance is based on two models (Demsetz and Villalonga, 2001): (i) we estimate how ownership structure is affected by firm characteristics, including firm performance; and (ii) we investigate the extent to which the performance of firms is influenced by ownership structure. The general models to be estimated can be written in the following form:

$$\text{Ownership Structure}_{it} = \alpha_{it} + \beta_1 \text{Performance}_{it} + \sum_{j=1}^m \gamma_j X_{jit} + \varepsilon_{it} \quad (1)$$

$$\text{Performance}_{it} = \alpha_{it} + \beta_2 \text{Ownership Structure}_{it} + \sum_{j=1}^n \delta_j X_{jit} + \vartheta_{it} \quad (2)$$

Subscripts i and t refer to the company and year respectively, while subscript j indicates the j -th exogeneous variable in the two equations. Ownership structure shows the percentage of shares of a company owned by the largest shareholder; performance is indicated by either labour productivity or net profit margin. X represents a vector of firm characteristics such as innovation activities, size, age, industry, restructuring activities, etc.

The first model supposes that firm performance and other firm characteristics would influence ownership concentration. Better performing firms would experience more concentrated ownership, since owners (or potential owners) would want to acquire more shares in order to take control of the firm. The second model considers the effect of ownership concentration and other firm characteristics on firm performance. The relationship between ownership concentration and firm performance is based on the hypothesis that large shareholders will help increase the profitability of the firm by closer monitoring and the amelioration of the agency problem. Despite much research in the field, the question remains whether large owners contribute to the solution of agency problem- or exacerbate it- in different environments.

The main concern in the literature is the cost of the separation of ownership and control, or the agency cost. Empirical studies investigating this relationship focus on the advantages of ownership concentration, but they do not provide consistent results (Claessens and Djankov, 1999; Hanousek, Kocenda and Svejnar, 2007; Grosfeld and Hashi, 2007; and Balsmeier and Czarnitzki, 2010, among others). Dispersed ownership in large firms increases the principal-agent problem due to asymmetric information and uncertainty while ownership concentration is expected to improve firm performance due to increased monitoring by owners and the consequent improvement in the quality of managerial decision. On the other hand, Grosfeld and Hashi (2001) have pointed out that high concentration may also have a negative effect on firm performance because of: (i) its excessive control and restraining impact on managerial initiative; (ii) the lower levels of stock liquidity associated with high concentration that weakens the informational role of the stock market; and (iii) ownership concentration is costly for the large shareholders because it limits risk diversification.

The measurement and the variables employed in the model, namely firm performance, ownership structure, innovation activities and other control variables are discussed in detail in the following sub-sections.

2.1. Firm performance measures

The empirical work in this field of research (Demsetz and Lehn, 1985; Himmelberg et al., 1999; Demsetz and Villalonga, 2001; Grosfeld and Hashi, 2001; Jones et al., 2005; Brown et al., 2006; Hashi and Shehaj, 2007) uses a wide range of measures to quantify the firm performance. Generally, in the empirical studies two different measures of firm performance are employed: (i) market measures, such as Tobin's Q, and (ii) accounting measures, such as return on assets, return on equity, return on sales, etc. Demsetz and Villalonga (2001) highlight the difference between these two measures in two respects, as shown in Table 1. Demsetz and Lehn (1985) employ accounting profit rate to measure firm performance (the post-tax accounting profit-to-book value of equity).

Table 1 The difference between accounting measures and Tobin's Q

	Time perspective	Who measures the performance
Accounting profit rate	Backward looking	Accountants
Tobin's Q	Forward looking	Investors

The choice of a performance indicator in the TE literature mainly depends on the availability of the data. The fact that not many companies are listed on the stock exchanges of TEs makes the use of Tobin's Q as a measure of performance almost impossible. It has therefore been necessary for most studies to employ accounting measures. Other studies have used labour productivity as an indicator of economic performance.

For the empirical investigation of the ownership-performance relationship in Macedonia, we follow this literature and employ two performance indicators based on the firms' balance sheets for the years 2001-2010, i.e., (i) labour productivity as the sales to number of employees ratio and (ii) net profit margin as the net profit to sales ratio. Further, from the balance sheets we create variables such as total assets to number of employees, labour cost to sales, percentage of capital to total assets, etc. which we use as other firm characteristics (section 3 provides the descriptive statistics for the variables).

2.2. Ownership structure variables

As with firm performance, a wide range of measures of ownership structure have also been applied in the literature. Most of studies investigation the issue follow Demsetz and Lehn (1985), by using the percentage of shares owned by the largest 5 or 20 shareholders and a HHI-type index. Demsetz and Villalonga (2001) use fraction of shares owned by the management and the fraction of shares owned by the largest shareholding interest, arguing that using both of them gives a more accurate picture of the complexity of interests represented by a given ownership structure.

Grosfeld and Hashi (2001) focus on two dimensions of ownership structure, the concentration of ownership (measured by the share of the largest shareholder) and the type of dominant owner (other companies, investment funds, individuals, portfolio companies, banks and the state). A recent study, Hanousek et al. (2011), proposes several ownership concentration categories by defining different types of majority and minority groups. This is the approach used in the present study. The first category is the absolute dominance type, with the largest owner owning more than 50 percent and others owning less than 10 percent, i.e. no other significant owners. The second category reflects a monitored dominant owner in which there is a dominant owner (owning more than 50 percent of shares) but there are also other significant owners (owning at least 10 percent of shares), thus large enough to be able to exercise some monitoring of the dominant owner. The third category is a 'jointly controlling minority' category, where two or three minority owners together own more than 50 percent of shares. The last category, dispersed ownership, represents a situation in which none of the shareholders owns more than 10 percent of shares.

Three different dimensions of the evolution of ownership will be employed for the investigation of ownership structure in this study: (i) concentration of ownership measured as the share of the largest shareholder and the share of the three largest shareholders; (ii) the presence or absence of a dominant owner, comprising of the four specific ownership concentration categories identified in the previous paragraph - absolute dominance, monitored dominance, jointly controlling minority and dispersed ownership; and (iii) the type of dominant owner indicating whether the owner is ethnic Macedonian, ethnic Albanian or foreign.

2.3. Measures of innovation activities and other variables

A variety of measures of innovation activities have been used in the literature - research and development (R&D) spending, the number of patents, the number of new products introduced in a year, the percentage of sales resulting from the new products, to name a few. Following Schumpeter's definition of innovation (1939, p. 84), we employ new product and new process generated by firms, as in Love et al. (1996), Chudnovsky et al. (2006), Griffith et al. (2006), Commander and Svejnar (2007), Falk (2008) and Ghosh (2009). This information is extracted from the SPEM 2001-10, the response to a question on whether the firm had introduced a new, or significantly improved, product, service or process after privatisation.

Several other variables are used to measure the relationship between ownership structure, innovation activities and firm performance. Specifically, these are the control variables consisting of firm characteristics such as firm size, age, year of privatisation, industry group, restructuring index, the volatility of firms' environment, and the founder/manager's education level and gender.

We measure firm size by the number of employees of the firms as responded in the questionnaire. Firms' age is measured by the number of years the firm has been in operation. In the questionnaire the respondents were asked to indicate the year when the company started its operation. By subtracting the year of the establishment from the current year in panel we get the variable as an indicator of the firm's age. Similarly, we generate the variable of years since privatisation. This would enable us to examine the effect of the time since privatisation.

Another variable that might have an impact on the concentration of ownership and its firm performance is the technological intensity of the industry in which a firm is operating. We follow the Eurostat definition for the classification of components of the manufacturing industry on the basis of their technological intensity (using NACE Rev. 2 at 2-digit level as the basis of classification), grouping different activities into high-technology, medium high-technology, medium low-technology and low-technology industries. Similarly Eurostat classifies the service sector as knowledge-intensive services (KIS) or as less knowledge-intensive services (LKIS).

A firm's restructuring activities is another variable that has an impact on its performance, and potentially on its ownership structure (restructured firms are more desirable to own). The enterprise survey (SPEM 2001-2010) contained several questions on restructuring activities of firms in areas such as product innovation, assets, staff, finance and management undertaken after privatisation. These questions were qualitative questions and the respondents were asked to rank them on a scale from zero to five. Given the multidimensional nature of the restructuring process, the factor analysis technique ('factor' command in STATA 11) was used to combine the answers to these questions and generate the 'restructuring index' variable which is used as one of the variables in the regression analysis.

3. STATISTICAL OVERVIEW OF THE SAMPLE

For the empirical analysis of this study we employ primary firm-level panel data for 60 privatised firms in Macedonian for the period 2001-2010. The panel dataset of 60 firms in ten years consists of two types of variables, i) time-invariant – the questionnaire variables and ii) time-variant – the financial statements of the firms and their ownership evolution in ten years.

The descriptive statistics of the financial data and the relationship between the firm performance indicators and different firm characteristics are presented in Table 2 which provides an overview of the development of the financial variables through years.

Table 2 Average values of the financial variables for the sample, 2001-10

Year		Labour Productivity (in millions of denar per worker)	Net Profit Margin (%)	Leverage	Total Assets Turnover (Sales to Total Asset)
2001	Average	2.6	-3.1	2.9	.89
2002	Average	2.9	1.0	5.3	.86
2003	Average	3.0	-9.4	11.4	.81
2004	Average	3.0	-6.6	15.3	.82
2005	Average	3.6	-9.6	18.1	1.09
2006	Average	4.9	-9.3	12.1	.84
2007	Average	4.6	-285.0	13.2	.92
2008	Average	5.6	-23.6	34.6	.79
2009	Average	4.5	-34.8	16.7	.79
2010	Average	4.9	-65.4	83.7	.90
2001-2010	Average	4.0	-62.4	21.4	.88
	No of obs	563 ^a	567	568	506

^a The number of observations is smaller than 600 because there are some missing observations in the financial dataset.

Labour productivity has been increasing over time with the highest point reached in 2008. The average of net profit margin remains negative through the years of analysis. The leverage ratio has also increased over time.

The following figures present some cross tabulations of firm characteristics and how they are related to firm performance. Figure 1 shows the relationship between the innovation activities of firms in different technological classifications and their labour productivity.

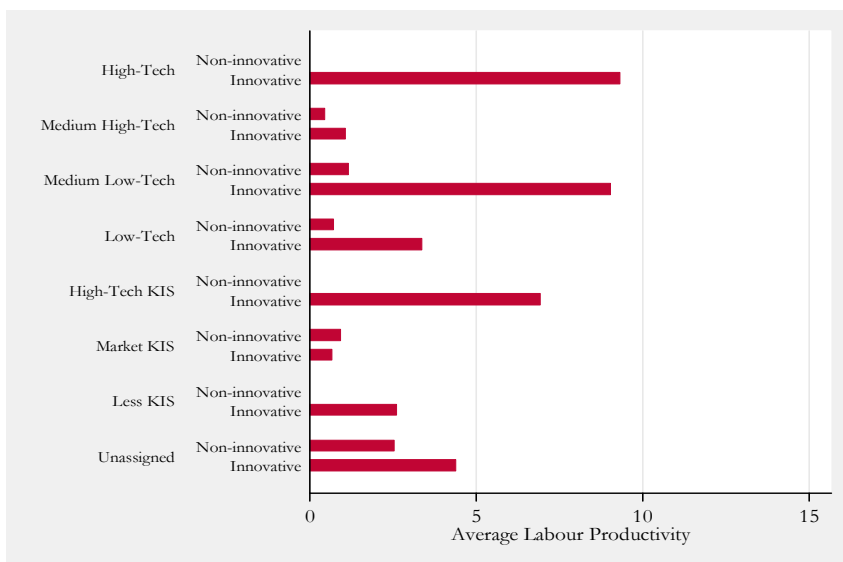


Figure 1 Labour productivity and innovativeness by technological intensity of firms (in million denar per worker)

Firms in the group of high-technology manufacturing or high knowledge intensive services seem to perform better than other firms. Also, innovative firms seem to be performing better than non-innovative firms across the sample. Interestingly, there are no non-innovative firms in the high-technology and high-tech KIS industry. Figure 2 presents the average labour productivity of sample firms for firms of different size, innovativeness and ownership concentration.

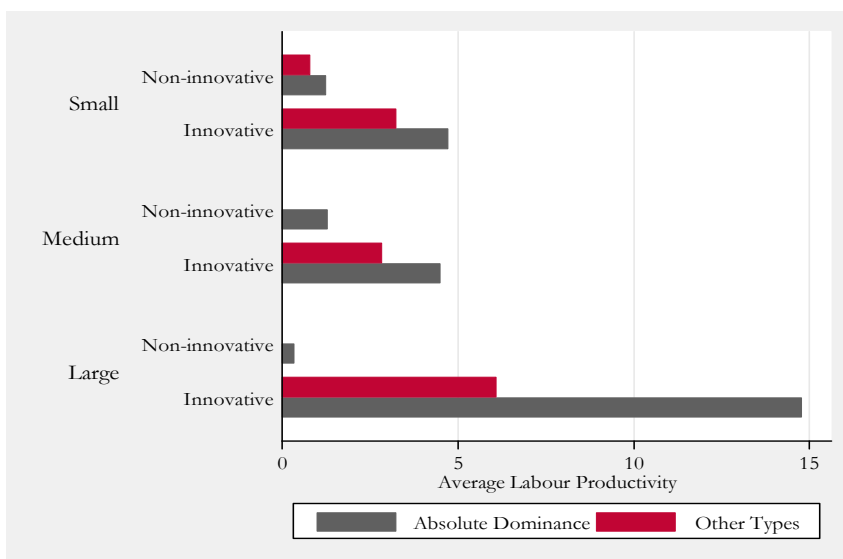


Figure 2 Firms' performance and innovativeness by size and type of ownership concentration (in million denar per worker)

As it can be noticed, larger firms tend to have higher concentration (absolute dominance) and perform better than small and medium size firms. Further, all the firms that have introduced new products and/or processes after privatisation tend to have more concentrated ownership and perform better than non-innovative firms. Generally we notice that better performing are large firms that have undertaken innovation activities, and this is the case irrespective of whether the firm has an absolute dominance structure or not. In the next section we continue with the statistical overview of the evolution of ownership structure. Two different dimensions of the process of evolution of ownership are analysed: (i) concentration of ownership and (ii) the type of the dominant owners.

4. EVOLUTION OF OWNERSHIP STRUCTURE: STATISTICAL OVERVIEW

In this section we provide the descriptive statistics of the dynamics of the ownership data, i.e. the evolution of ownership concentration, five different ownership concentration categories, and different types of ownership structure. Further, the relationship between ownership structure and the other variables of our analysis such as firm performance, innovation activities, and other firm

characteristics are also explored. Table 3 shows the percentage share of all large shareholders owning more than 5% of shares. Data is provided for the seven largest shareholders.

Table 3 Average holding of largest shareholders holding more than 5% of shares

Year		Largest Owner	2 nd Largest Owner	3 rd Largest Owner	4 th Largest Owner	5 th Largest Owner	6 th Largest Owner	7 th Largest Owner
2001	Mean	50.6	16.1	9.3	7.3	5.8	5.7	5.4
	No of companies	46 ^a	22	8	4	3	3	2
2003	Mean	54.9	20.7	11.1	6.4	5.6	5.2	5.1
	No of companies	53	27	10	4	2	2	1
2004	Mean	55.8	21.4	11.2	6.4	5.6	5.3	0
	No of companies	55	28	10	4	2	2	0
2005	Mean	54.9	21.0	11.6	6.3	5.5	5.1	0
	No of companies	59	31	12	6	1	1	0
2006	Mean	55.8	19.7	11.9	6.8	5.9	5.1	0
	No of companies	59	35	17	8	5	1	0
2007	Mean	56.9	18.6	11.5	8.1	6.2	5.1	0
	No of companies	59	33	19	10	7	1	0
2008	Mean	56.3	18.7	11.8	8.2	6.4	5.5	0
	No of companies	58	34	21	11	7	2	0
2009	Mean	57.2	18.7	12.0	8.5	6.4	5.5	0
	No of companies	58	34	20	10	7	2	0
2010	Mean	57.3	18.8	11.7	8.3	6.6	5.5	0
	No of companies	58	36	20	11	6	2	0
2001 – 2010	Mean	55.6	19.4	11.5	7.6	6.2	5.4	5.3
	No of companies	505	280	137	68	40	16	3

^aThe number of companies in the 'Largest Owner' column gives the number of observations and it differs from the size of the sample because of the missing data. The 2002 ownership data is also missing.

One can observe that at the beginning of the period (year 2001) the average percentage of shares owned by the single largest owner was already quite large (50.6) and it has increased over time (to 57.3), thus indicating that the ownership of firms has become more concentrated through time. Further, with the exception of 2001 and 2003 where there were companies with 7th largest owners holding more than 5% of shares, the great majority of companies from 2004 onwards did not even have a seventh owner with 5% of shares in the company, meaning that the number of shareholders with more than a 5% stake in companies has reduced.

It is important to mention here that there are no firms in which there is a combined ethnic Macedonian and Albanian owners in the sample. There are few cases with monitored minority or dispersed ownership meaning that ethnic Albanian firms have evolved faster to more concentrated ownership compared to ethnic Macedonian firms. However this is the case only for a small number of firms since out of the overall privatised firms only a dozens of them have ethnic Albanian ownership (there might be a few more cases where they own less than 5% of shares). Figure 3 presents the average labour productivity as performance indicators for different types of ownership and their innovating activities.

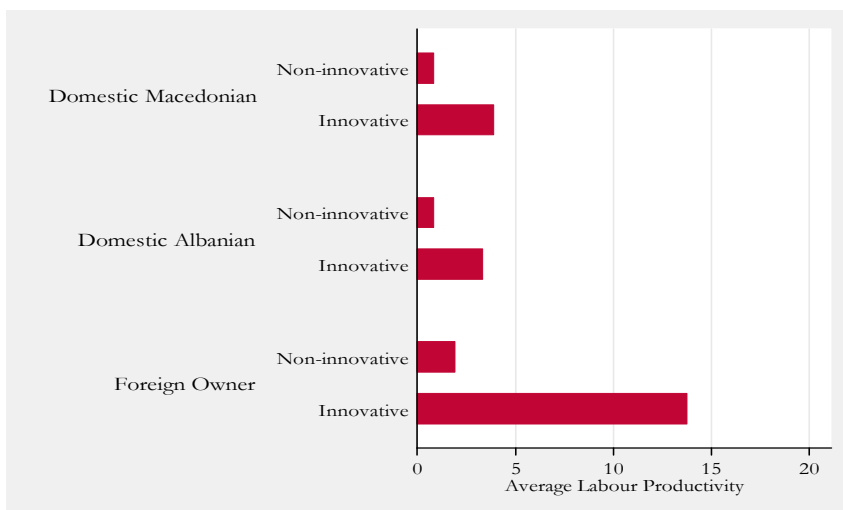


Figure 3 Average labour productivity by type of dominant ownership and innovativeness, 2001-2010 (in million denar per worker)

It can be noticed that foreign innovative firms have better performance than all other firms. In general firms that undertake innovation activities in all ownership types perform better than those which have not undertaken any innovation activities irrespective of the nationality of dominant owners. Innovative firms under ethnic Macedonian ownership perform better than firms under ethnic Albanian ownership.

Overall, the statistics suggest that better performing firms are large firms which belong to high-technology or KIS sector, and have undertaken innovation activities after privatisation. Considering ownership concentration, foreign owned firms in the absolute dominance category perform better than other ethnic ownership groups and other concentration categories.

5. EMPIRICAL RESULTS

We are now going to investigate the two models specified in section 2 (equations (1) and (2) empirically. Firstly, the two dimensions of the evolution of ownership: (i) concentration of ownership and (ii) the type of the dominant owners are estimated. Secondly, the extent to which the performance of firms is influenced by ownership structure, innovation activities and other firm characteristics are explored.

The early literature on the ownership-performance relationship employed OLS method of estimation and thus resulted in biased estimates because of the assumption of exogeneity (Demsetz, 1983; Demsetz and Lehn, 1985; Demsetz and Villalonga, 2001; Grosfeld and Hashi, 2003). Following Wintoki et al. (2010) we are going to control for three potential sources of endogeneity which are highlighted in the literature, namely (i) unobserved heterogeneity, (ii) simultaneity and (iii) dynamic endogeneity, which need to be taken into account.

In order to compare the improvements gained from the enhanced techniques of the IV/GMM we first estimate the models with pooled OLS method as the baseline analysis. To deal with the endogeneity of labour productivity and the share of the largest owner, we will use instrumental variables (IV), by finding instruments which satisfy the two key assumptions (i) the instrumental variable must be uncorrelated with the error term but (ii) must be correlated with the independent variable. The instruments considered are the natural logarithm of depreciation as proxy for capital input and managers age as proxy for the quality of management. Both appear to be valid instruments and satisfy the test of redundancy. We further continue with the enhanced routines for IV/GMM estimation presented by Baum et al. (2007) which produce statistics that are robust in the presence of heteroskedasticity and autocorrelation, such as GMM kernel and the GMM continuously updated estimator (CUE) of Hansen et al. (1996), applied to panel specification.

The empirical results of the estimated models are presented on table 4 and 5. Firstly, we estimate the effect of the determinants of ownership concentration using the share of the largest owner (LogC1) as dependent variable. Second, we investigate the impact of ownership concentration, innovation activities and other firm characteristics on firm performance, with labour productivity as a measure of performance.

Table 4 provides the results from three different estimation techniques of the share of the largest owner (LC1) on firms performance variable, labour productivity (LNLP), Innovation activities (INNOV), nationality and ethnicity of the dominant shareholder (Dommac and FRGN), type of ownership (INDIVIDUAL), firm size (size), firm age (LNAGE), capital intensity (LNCI), the leverage ratio (LEVERAGE), the volatility of firm's environment (StROA), years since privatisation (YsinceP), restructuring index (RI) and technological intensity category of the firm's industry (HighTech, MedHTech, MedLTech, HTKIS).

Firm performance may determine the shareholders' decision to increase or decrease their shareholding in a company. One can expect that shareholders might be more interested in increasing their holdings in firms that are not performing well in order to have more control on the management and obtain some of the benefits of control by improving the firm's performance. But on the other hand risk-averse shareholders might look for risk diversification and thus reduce their holdings in poorly performing firms. The impact of firm performance on shareholders' decision to concentrate their holdings is therefore ambiguous. However in the transition context, having in mind the high level of uncertainty and poor legal protection, shareholders are more likely to increase their shareholding in better performing firms. The results, using different techniques, are similar - indicating a positive and significant performance-ownership relationship. This means that better performing privatised firm in Macedonia tend to have more concentrated ownership.

Table 4 Determinants of ownership concentration in different models

Model	IV/2SLS	2 step-GMM kernel	CUE estimation
<i>Independent Variables</i>	<i>Dependent Variable: The share of the largest owner (LC1)</i>		
<i>LNLP</i>	1.00*** (0.167)	1.01*** (0.296)	1.01*** (0.174)
<i>INNOV</i>	-1.32*** (0.247)	-1.33*** (0.407)	-1.33*** (0.259)
<i>Dommac</i>	-1.37*** (0.231)	-1.38*** (0.406)	-1.38*** (0.207)
<i>FRGN</i>	-0.58 (0.362)	-0.58 (0.613)	-0.59* (0.319)
<i>INDIVIDUAL</i>	-0.92*** (0.162)	-0.92*** (0.281)	-0.93*** (0.155)
<i>size</i>	2.89*** (0.635)	2.87*** (1.068)	2.89*** (0.649)
<i>size2</i>	-0.76*** (0.154)	-0.75*** (0.273)	-0.76*** (0.160)
<i>LNAGE</i>	-21.33***(2.141)	-21.35*** (4.050)	-21.44*** (2.226)
<i>LNAGE2</i>	2.95*** (0.294)	2.96*** (0.572)	2.97*** (0.312)
<i>LNCI</i>	-4.23*** (1.541)	-4.12 (2.848)	-4.18** (1.764)
<i>LNCI2</i>	0.15*** (0.053)	0.15 (0.099)	0.15** (0.062)
<i>LEVERAGE</i>	0.02 (0.123)	0.02 (0.167)	0.01 (0.102)
<i>StROA</i>	-0.01 (0.121)	-0.01 (0.111)	-0.01 (0.118)
<i>YsinceP</i>	0.00 (0.015)	0.00 (0.029)	-0.00 (0.017)
<i>RI</i>	0.52*** (0.086)	0.52*** (0.171)	0.52*** (0.088)
<i>HighTech</i>	-4.01*** (0.456)	-4.01*** (0.754)	-4.00*** (0.390)
<i>MedHTech</i>	-1.01*** (0.359)	-1.00* (0.560)	-1.00*** (0.315)

<i>MedLtech</i>	-0.62*** (0.237)	-0.63 (0.478)	-0.63** (0.256)
<i>HTKIS</i>	-2.09*** (0.601)	-2.08*** (0.773)	-2.09*** (0.434)
<i>Instruments:</i>			
<i>LNdep</i>	√	√	√
<i>ManAGE</i>	√	√	√
<i>Observations</i>	393	393	393
<i>R-squared</i>	0.476	0.475	0.476
<i>Adjusted R-squared</i>	0.449	0.448	0.439
<i>F statistic</i>	20.59	10.36	22.28
<i>Cragg-Donald Wald F statistic</i>	66.28	18.19	45.02

Note: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Shareholders' interest in increasing or decreasing their holdings may also vary among innovative and non-innovative firms. The introduction of new product and/or process is usually considered as risky, due to the possibility of the failure of the innovation (the product not accepted in the market, high costs, etc.) which makes innovation less attractive for risk-averse shareholders. On the other hand, such high levels of risk are also coupled with high potential returns, which make innovative firms particularly attractive for shareholders to increase their holdings. In other words the impact of innovation activities on shareholders decision to concentrate their shares is ambiguous. The regression results show negative and significant coefficient for innovation activities when using share of the largest shareholder as the dependent variable. This means that innovative firms are more likely to decrease the level of concentration of ownership. Owners might find these firms in Macedonia as more risky and thus reduce their shares. When the share of the three largest shareholders is employed as dependent variable innovation activities have significant negative coefficient, thus the same applies regardless which variable is used.

The level of ownership concentration may depend on different types of largest shareholder (Grosfeld and Hashi, 2004). Corporation may have more incentives to concentrate their shares as compared with individuals. The ethnicity and nationality of the dominant owners is another important factor that may affect ownership concentration. The first two models (IV/2SLS and two-step GMM-kernel) show insignificant coefficients for foreign owners (indicating that the foreign ownership concentration is the same as with Albanian owners but higher than Macedonian owners. However, foreign ownership appears to be negative and only marginally significant when applying the CUE estimations, indicating that we have sufficient evidence to say that foreign owned firms tend to be less concentrated than domestic Albanian firms. The impact of the dominant ethnic Macedonian ownership is negative and significant in all three different estimations, which implies that it is smaller than the impact of dominant Albanian owners (the base category). These results indicate that ethnic Macedonian owned firms tend to be less concentrated than the ones with dominant ethnic Albanian ownership. The individual variable has a negative and significant coefficient thus

we can conclude that individuals have fewer incentives to concentrate their shares than companies.

Another determinant of ownership concentration is firm size. Larger firms are less likely to be highly concentrated because of wealth limitation and risk aversion. It is more costly to acquire large portions of equity in larger companies, and shareholders are more interested to diversify their shares thus would not prefer to invest large fraction of their wealth in one firm. Nevertheless, in the uncertain environment of TEs, large and older firms are perceived by shareholders as more stable and better known thus they may be interested in increasing their shareholdings in these firms. The impact of firm size on the ownership concentration is thus ambiguous.

The three techniques result in positive and statistically significant coefficient for firms' size. The squared value with negative sign shows that the increase is non-linear i.e. there is an inverse U-shaped relation between the two. This is in accordance with our expectations that in an uncertain environment such as in Macedonia large firms are perceived as more stable and better known, thus the shareholders are more interested to increase their shares (but of course only up to a point, after which they would decrease their holdings).

The effect of leverage on ownership concentration may be ambiguous. High leveraged firms are more risky thus risk-averse owners may wish to avoid increasing their shareholding in them (Demsetz and Lehn, 1985). On the other hand, firm leverage may also be considered a complementary monitoring mechanism (as it can induce monitoring by lenders) and in this sense the shareholders may increase the level of ownership concentration. The three estimation techniques result in insignificant coefficient thus we have insufficient evidence to confirm that firm leverage has any effect on shareholdings in the company. Furthermore, the two other control variables, firm volatility and years since privatisation are insignificant. We have insufficient evidence to confirm that firms that have been privatised at the beginning of privatisation process tend to have more concentrated ownership than those privatised more recently.

We control for the technological intensity of the industry to which the firm belongs. High-technology firms are more likely to be less concentrated because of risk aversion. High-technology, high-technology KIS, medium-high-technology and medium-low-technology firms show to have negative and significant signs, meaning that they tend to have less concentrated ownership compared to low-technology and low-technology KIS firms.

We now continue with the second model. The variables employed are the same as in the previous model (1), but in this specification we examine the impact of ownership structure (share of the largest shareholder LC1) and other firm characteristics on firm performance. The results of the regression analysis generated from three different methods (IV, GMM kernel and CUE GMM) are presented in Table 5.

Table 5 Determinants of firm performance in different models

Model	IV/2SLS	2 step-GMM kernel	CUE estimation
<i>LCI</i>	0.99***(0.165)	0.99***(0.292)	1.35***(0.259)
<i>INNOV</i>	1.31***(0.199)	1.32***(0.375)	1.48***(0.295)
<i>Dommac</i>	1.37***(0.291)	1.37**	1.20***(0.376)
<i>FRGN</i>	0.57(0.351)	0.58(0.634)	0.91*(0.484)
<i>INDIVIDUAL</i>	0.92***(0.186)	0.91***(0.353)	0.92***(0.256)
<i>Size</i>	-2.87***(0.661)	-2.85***(1.000)	-4.80***(0.845)
<i>size2</i>	0.75***(0.162)	0.75***(0.248)	1.27***(0.211)
<i>LNAGE</i>	21.19***(3.169)	21.15***(5.438)	24.92***(4.593)
<i>LNAGE2</i>	-2.93***(0.428)	-2.93***(0.740)	-3.38***(0.613)
<i>LNCI</i>	4.20***(1.414)	4.09(2.654)	3.25*(1.975)
<i>LNCI2</i>	-0.15***(0.050)	-0.14(0.094)	-0.12*(0.070)
<i>LEVERAGE</i>	-0.02(0.123)	-0.02(0.169)	-0.11(0.141)
<i>StROA</i>	0.01(0.120)	0.01(0.108)	-0.09(0.152)
<i>YsinceP</i>	-0.00(0.015)	-0.00(0.029)	-0.01(0.021)
<i>RI</i>	-0.51***(0.121)	-0.51***(0.194)	-0.32*(0.109)
<i>HighTech</i>	3.99***(0.637)	3.97***(0.987)	4.08***(0.710)
<i>MedHTech</i>	1.00**(0.440)	0.99(0.691)	1.33**(0.525)
<i>MedLTech</i>	0.62***(0.208)	0.62(0.383)	0.14(0.247)
<i>HTKIS</i>	2.07***(0.650)	2.06**(0.869)	1.79***(0.606)
<i>Observations</i>	393	393	417
<i>R-squared</i>	0.067	0.071	-0.821
<i>r2_a</i>	0.0190	0.0240	-0.903
<i>r2c</i>	0.0666	0.0713	-0.821
<i>F</i>	15.94	9.128	13.74
<i>df_m</i>	19	19	18
<i>Widstat</i>	19.94	5.963	14.64

Note: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

We find consistent results across the three estimation techniques reported in Table 5. They all show that performance is statistically dependent on ownership structure and type of ownership. The three estimation techniques are consistent with previous studies that show significant effect of ownership structure on firm performance.

The table shows a positive and significant relationship between innovation activities and labour productivity. This is suggesting that when accounting for endogeneity in the regressors, together with HAC standard errors, the relationship between innovation activities and firm performance does not

change. In accordance to our expectations more innovative firms tend to perform better than the non-innovative ones.

The variable *Dommac*, i.e., dominant ethnic Macedonian ownership, is positive and significant for the three estimation techniques. Foreign ownership appears to be significant only when the CUE estimations are applied. When the CUE estimation technique is applied, the positive significant sign for dominant ethnic Macedonian owners and Foreign owners, indicate that these firms perform better than dominant Albanian owned firms (dummy base category).

All the three estimation techniques show negative and significant coefficient for the variable firm size, indicating that as firms get smaller their performance improves. The positive sign of the size squared variable indicates that there is a U shaped non-linear relationship.

Capital intensity is another control variable that has been used in the performance equation (Himmelberg, et al., 1999). The results show positive and significant coefficient with the IV/2SLS and CUE estimation techniques, but insignificant with the two-step GMM technique. The relationship becomes negative significant for the squared term (again insignificant for two-step GMM) though with smaller coefficient meaning that capital intensity increase will improve labour productivity up to a point, beyond which it will cause a decrease in productivity.

The firm leverage is insignificant in all the estimations. Thus, we have insufficient evidence to conclude that leverage affects firm performance. The same situation is found for the volatility variable and years since privatisation. Furthermore, CUE estimates result in positive and significant coefficients for the manufacturing and service industry based on technological and knowledge intensity. This indicates that high-technology firms and knowledge intensive services perform better than low-technological and knowledge intensity activities.

6. CONCLUSIONS

This study investigated (i) the main determinants of ownership structure and (ii) the impact of ownership structure on the firm's performance in privatised firms in Macedonia. The statistical overview of the overall sample shows that ownership concentration has increased over time and that more concentrated, large and innovative, firms perform better.

For the empirical analysis three different estimation techniques are applied to the dataset of 60 firms over a 10 year period in Macedonia in order to deal with endogeneity, heteroskedasticity and autocorrelation problems. We treat both ownership concentration and performance as endogenous variables. The first estimation findings support the view that the firm productivity significantly

affects ownership concentration (two-step GMM estimations appears to have insignificant coefficient). Other variables such as innovation activities, nationality or ethnicity of the dominant owner (ethnic Macedonian, ethnic Albanian or foreign ownership), type of ownership (individuals or companies), size, years since privatisation and the technological intensity of the industry in which the firms operate have significant impact on ownership structure.

With the second investigation, the impact of ownership structure on firm performance, we provide evidence that ownership structure has a statistically significant impact on firm performance. Further, the results indicate that innovation activities, firm size and restructuring are the main factors (significant in the three estimation techniques) that influence the productivity of privatised firms.

Finally, some important findings can be identified from the empirical results. Firstly, the results of the regressions differ slightly depending on the model used, but there is sufficient evidence to support the significant positive ownership-performance relationship. Secondly, being concerned with the ownership structure and the impact of innovation activities on firm productivity we are able to conclude that the innovation activities undertaken by firms after privatisation are significant factors. Finally, the relation between ownership structure and labour productivity in Macedonia is also related to the ethnicity of the dominant owners indicating that ethnic Albanian firms tend to be more concentrated but less performing than Macedonians firms.

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INTERACTIVE IMPACT OF INNOVATION AND EDUCATION ON BUSINESS PERFORMANCE DURING THE ECONOMIC DOWNTURN

JEL classification: O310, I250

Abstract

In times of quick changes and great business and economic uncertainty, innovativeness becomes a strategic priority of any business organization. The same opinion applies to the improvement of employees' knowledge and skills through regular education activities. Such a strategic orientation is especially hailed during and after recession by both managers and academia. The purpose of this research is to investigate whether the companies from the F B&H that had pursued such a strategy have achieved a better business performance. For that purpose, beside the archival data from the Federal financial office, data were also collected from a questionnaire which was sent to 270 companies in the F B&H, yielding 120 valid responses. For the purpose of data analysis, a multivariate analysis of variance (MANOVA) was employed. The research results show that only simultaneous investment in innovation and education has a significant effect on business performance, which is the most important research finding.

Keywords: innovation, education, business performance

1. INTRODUCTION

Ever since Joseph Schumpeter (1939) argued that innovation is one of the main drivers of economic changes, there has been a strong belief that innovations represent a critical source of competitive advantage (Crossan and Apaydin 2010). Likewise, knowledge acquisition and creation through the process of people training and education represent an essential source of competitive advantage, too (Castellanos and Martin 2011). Such a conception was particularly emphasized after Peters and Waterman (1982) ground-breaking proposition about the people as the firm's most valuable asset.

During and right after economic downturns, the first impulse within the firms and firms' management, and even the advice given to them, is to consolidate the scarce organizational resources by cutting costs and prohibiting all but irremissible expenditures (Rhodes and Stelter 2009). Contrariwise, both innovation and education processes impose additional and, more often than not, considerable expenses to the firms' budgets. However, investing in the increase of innovative activities is among five strategic top-priorities of contemporary business organizations (HBR Analytic Services 2011). In addition, a strong positive correlation between innovation and people training and education (Kimberly and Evanisko 1981; Mol and Birkinshaw 2009) implies that investment in these activities is essential for the positive outcome of any organizational innovative effort.

Another important issue related to the very core of this study is the mutual influence between performance, innovation and education. There are many studies which point to the positive correlation between the processes of innovation and education and business performance (Klomp and van Leeuwen 2001; van der Sluis *et al.* 2008), but studies that analyse interdependence of these three variables are quite rare.

Combining all these arguments, it could be considered that investing in both innovations and employees' knowledge and skills improvement, through regular education activities, should be a strategic priority of any modern business organization, irrespective of the present economic state and cycle. Accordingly, the main focus of this study is the mutual effect which innovation and staff education have on organizational performance during and after the great recession economy of 2008. Thus, the basic research question of this study is:

RQ: Can the interactive effect of innovation and education (training), in the immature and underdeveloped market condition of the Federation of Bosnia and Herzegovina, produce differences in the firms' performance outcome?

This research question outlines the purpose and scope of this study. Its primary goal is to examine the impact of firm's innovativeness, as well as the moderating role of the firm's educational system on business performance. The research model should be based on the existing literature and should be applicable to the market conditions of the F B&H.

2. LITERATURE REVIEW

Doing business in a modern hyper-competitive market is almost impossible without the continuous development and improvement of competitive advantages. At the beginning of the 20th century, Joseph Schumpeter has identified innovation as a main driver of economic changes (Schumpeter 1939). Ever since then, the theory and practice of management records continual growth of research works on innovation as a crucial source of competitive advantage.

Very often, the concept of innovation is treated interchangeably with the concepts of invention and creation (Man 2001, cited by Job and Bhattacharyya 2007). Both these latter concepts are related to the act of designing something that previously did not exist, while the concept of innovation relates to the implementation of previously created ideas. Furthermore, the term innovation is used in many different ways. Thus, in this study, innovation is regarded in accordance with the following definition: "*changes or modifications made to the form, quality or status, whether to the system, behaviour, structure, process, product or service of an innovative organization, where such a change or modification represents a significant departure from the previous state*" (Bezdrob 2012, p. 11).

To properly comprehend the innovation phenomenon, it is necessary to identify the main reasons for undertaking innovative activities, as well as the factors which have the greatest impact on the success rate of innovation processes. The main innovation implementation reasons that could be identified within the existing literature are: *survival of the organization* (Land 1973, cited by Herring and Galagan 2011); *competitive advantage creation* (Hill and Jones 1995; Dess and Picken 2000; Helfat *et al.* 2007), and *business performances improvement* (Klomp and van Leeuwen 2001; Stock and Zacharias 2011; Huang *et al.* 2011).

Factors that affect the success rate of innovation processes in organizations are different and related to both the characteristics of organization and organizational environment. Crossan and Apaydin (2010) point to (and explain) the following meta-constructs of innovation processes: a) innovation leadership – on the individual level and at the group level; b) managerial levers – mission, goals and strategy, organizational learning and knowledge management, organizational culture, etc.; and c) business processes – meta-constructs that support innovation through initiation. Moreover, the effectiveness and innovation quality are mainly determined by permanent employee learning and development (Wang and Ahmed 2001).

Apart from innovation, one of the key sources of sustained competitive advantage is organizational knowledge and employees' education (Nonaka 1991). The main reasons for investing in employees' education are: changes in technology, increased complexity and uncertainty of the business environment,

growing demands of modern business in terms of new skills (Bahtijarević-Šiber 1999). Likewise, the main objectives of educational programs are: improved organizational competitiveness (Nonaka 1991), increased inimitability of human capital (Fahy 2000), avoiding obsolescence of employees' knowledge, and orientation and socialization of new employees (Bahtijarević-Šiber 1999).

Although the literature makes a precise distinction between the concepts of learning, training, education and staff development (Bahtijarević-Šiber 1999; Rahimić 2010), in this study the term education covers all activities that are related to the advancement of knowledge, skills and habits of employees.

Unfortunately, due to the constant turbulences in the modern business environment, the knowledge gained during formal education processes rapidly outdates. Moreover, that type of knowledge is insufficient for the present and, especially, for the future requirements of the job position. Thus, the mere survival of any modern enterprise considerably depends on a continual process of staff education. In order to provide the maximal effect and return, training in modern firms becomes all the more extensive in terms of financial costs and time consumption. In order to improve the work efficiency and performance of each employee as well as of the whole organization, education programs must be fully relevant to the business objectives and goals, and they must encompass all firm's employees (Bartel 1994; Hurley and Hult 1998; Mat and Razak 2011).

Since firms are interested in organizational processes advancement and maximization of the results of firms' activities, it is clear that they are interested in those factors that have the biggest impact on business performance. It is evident that the employees' knowledge and skills improvement, through regular education and training activities, and organizational innovation contribute to the firm's competitive advantage and business performance improvement (Klomp and van Leeuwen 2001).

Staff education and organizational innovation act as complementary activities in respect to business performance. More precisely, staff training has a positive effect on innovation (Laursen and Foss 2003), which in return has a positive relation to organizational performance (Klomp and van Leeuwen 2001). Accordingly, it could be claimed that simultaneous investment in educational and innovation processes will result in a superior business performance.

3. DATA AND METHODOLOGY

To test the research model, an archival research of financial reports from the firms that are registered in the F B&H was conducted, along with a survey questionnaire, which was sent to 270 firms that were randomly chosen from within the whole population of the firms that comply with the following profile:

- employing at least 20 people,
- established in 2002 or earlier,
- not belonging to financial, health care, social welfare, educational or public sector.

A total of 152 responses (56.3%) were received, out of which 120 were valid (44.44%). The responding firms have the average size of 170.7 (S.D. 290.7) employees and the average age of 17.5 (S.D. 4) years. The estimated population of the firms that comply with the described profile is about 1500, so the expected statistical error is around 9% (95% confidence level). The firms are proportionally distributed among different industries and different geographical parts of the F B&H.

3.1. Measures and Research Design

All variables were measured using data from the conducted survey (independent variables) and from the official balance reports of the corresponding firms (dependent variables). The measurement spans a five-year period from year 2006 to year 2010.

3.1.1. Dependent Variables

The research design is primarily determined by the objective and balanced view of business performance, which must take into account a balanced picture of various aspects of firm's operations. Thus, the measure of business performance is completely based on the balanced scorecard (BSC) principles (Kaplan and Norton 1992). For that purpose, measures from previous research (Bezdrob and Bičo Čar 2012) were adopted for the purpose of this study:

- “Average Labour Productivity” (Y_1) – measure related to the “Internal business process” perspective of BSC method, calculated as (logarithmic transformation used):

$$Y_1 = \frac{1}{4} \sum_i \left(\frac{Sales}{No. of Employees} \right)_i, \quad i = [2006, 2007, 2009, 2010]$$

- “Average Return on Invested Capital” (Y_2) – measure related to the “Financial” perspective of BSC method, calculated as:

$$Y_2 = \frac{1}{4} \sum_i \left(\frac{\text{Net Profit}}{\text{Equity} + \text{Long term Debt}} \right)_i, \quad i = [2006, 2007, 2009, 2010]$$

- “*Number of Employees Change*” (Y_3) – measure related to the “Learning and growth” perspective of BSC method, calculated as:

$$Y_3 = \frac{(\text{No. of Employees})_{2010} - (\text{No. of Employees})_{2006}}{(\text{No. of Employees})_{2006}}$$

- “*Total Revenue Change*” (Y_4) – measure related to the “Customers” perspective of BSC method, calculated as (logarithmic transformation used):

$$Y_4 = \frac{(\text{Sales})_{2010} - (\text{Sales})_{2006}}{(\text{Sales})_{2006}}$$

3.1.2. Independent Variables

As it is directed by the research question, the research design must ensure comparison between three groups of firms:

- *Group 1* – innovative firms which have well-established educational systems,
- *Group 2* – innovative firms which do not have well-established educational systems,
- *Group 3* – non-innovative firms.

Obviously, this is a simple case of a single three-level independent variable – “*Firm Type*” (X_1), which differentiates these three types of firms.

Although it is usually considered differently (OECD 2005), in order to avoid accidental innovative activities, it was assumed that only those firms that had introduced at least one new production process and one new product, during the period from the year 2006 to the year 2010, were really innovative.

3.2. Results

Table 1 contains the means and standard deviations of all model dependent variables for all three groups of independent variable X_1 . To test the differences between the defined groups of firms, MANOVA was employed in order to examine a set of four dependent variables, which represents the firms’ performance outcome.

As it could be seen from Table 1, firms are almost equally distributed among three groups, with sample sizes of 34, 36 and 36. Since there are four dependent variables in the model, these sample sizes provide for the identification of large effect sizes with the required statistical power of 0.8 (Hair *et al.* 2009).

Table 1. Descriptive statistics of dependent variables for groups of X_1

Dep. variable	Group of X_1	N	Mean	Std. Deviation
Y_1 Average Labour Productivity	Group 1	34	11.72	1.05
	Group 2	36	11.49	0.88
	Group 3	36	11.50	0.69
	Total	106	11.57	0.88
Y_2 Average Return on Invested Capital	Group 1	34	0.10	0.10
	Group 2	36	0.05	0.06
	Group 3	36	0.02	0.07
	Total	106	0.05	0.08
Y_3 Number of employees change	Group 1	34	0.51	0.59
	Group 2	36	0.28	0.60
	Group 3	36	0.21	0.63
	Total	106	0.33	0.62
Y_4 Total Revenue Change	Group 1	34	0.43	0.49
	Group 2	36	0.19	0.44
	Group 3	36	0.18	0.40
	Total	106	0.26	0.45

Graphical representation of the same data is displayed in Figure 1.

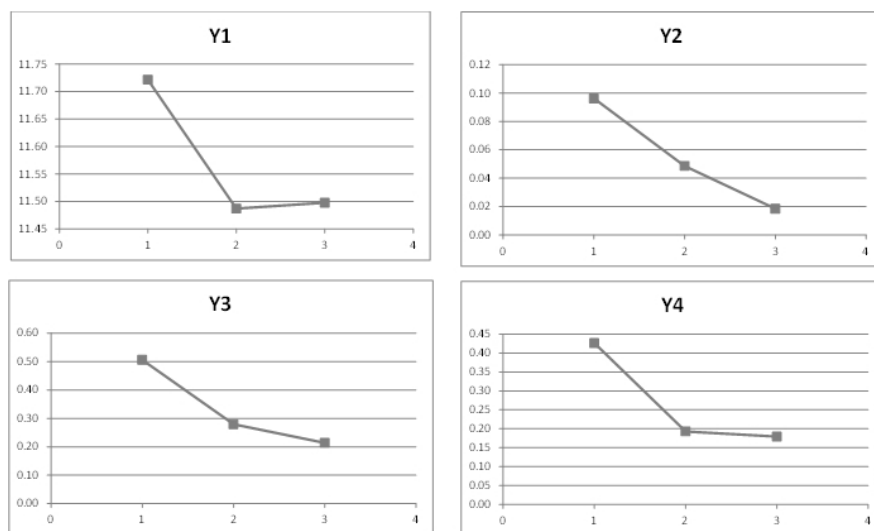


Figure 1. Graphical Display of Performance Measures for Groups of X_1

3.2.1. Assumptions

The most important assumptions for MANOVA – independence, normality and homoscedasticity, were evaluated through the SPSS. Independence of observations is provided as much as possible by a random selection of the responding firms.

Originally, the dataset contained 120 cases, but there were six outliers which laid more than five standard deviations away from the mean value. These outliers had a strong negative impact on the normality of the dependent variables, so these cases were removed from the dataset. Furthermore, variables Y_1 and Y_4 showed significant non-normality (skew > 2 , kurtosis > 7), thus the logarithmic transformation was used for these two variables to remedy this violation.

The assumption of the homogeneity of variance-covariance matrices among all groups was checked through two tests. First, univariate homogeneity was assessed by the Levene's test. As it could be seen from the test results (Table 2), this assumption was met (significance > 0.05).

Table 2. Levene's Test of Equality of Error Variances

Dependent variable	<i>F</i>	<i>df</i> ₁	<i>df</i> ₂	Sig.
Y_1 – Average Labour Productivity	2.82	2	103	0.06
Y_2 – Average Return on Invested Capital	2.14	2	103	0.12
Y_3 – Number of Employees Change	0.17	2	103	0.84
Y_4 – Total Revenue Change	0.61	2	103	0.54

The second step assumed testing the equality of the variance-covariance matrices for all three groups using the Box's test. The obtained results from this test were statistically significant at $p < 0.001$, meaning that there was a significant difference between the three groups on all variables collectively. In accordance with the recommendation (Field 2009), eight cases (four cases from each of group 2 and group 3) were randomly removed from the dataset in order to equalize the groups' sizes. Upon this deletion a much better result from the Box's test was obtained ($M = 30.094$, $F(20, 37852) = 1.420$, $p = 0.100$), roughly indicating the equality of covariance matrices. Therefore, the assumption of homoscedasticity was also met.

3.2.2. The MANOVA Model Estimation

Since all assumptions were met, the next step was to assess whether there exist significant differences for all performance variables across the three groups of firms, first all dependent variables together and then each of them individually (Hair *et al.* 2009).

All four most commonly used multivariate tests are statistically significant at $p < 0.001$, indicating that the set of performance variables has a significant difference between three types of firms (Table 3).

Table 3. Multivariate Tests for Group Differences in Performance

Test	Value	F	df ₁	df ₂	η^2	Power ¹
Pillai's Trace	1.17*	16.18	12	306	0.39	1.00
Wilks' Lambda	0.004*	156.78	12	265	0.84	1.00
Hotellings T ²	210.14*	1727.79	12	296	0.99	1.00
Roy's Largest Root	209.94*	5353.38	4	102	0.99	1.00

¹ - Computed using $\alpha = 0.05$; * - $p < 0.001$

Additionally, univariate tests for all four dependent variables indicate that each of them individually has a significant main effect (Table 4). Results from both multivariate and univariate tests show that the four performance variables have a statistically significant difference across the three types of firms.

Table 4. Univariate Tests for Group Differences in Performance

Variable	Type III Σ of sq.	Adj. R ²	df	Mean Square	F	η^2	Power ¹
Y_1 - Avg. Lab. Prod.	14180.68	0.99	3	4726.89	6058.69***	0.99	1.00
Y_2 - Average ROIC	0.41	0.38	3	0.14	22.88***	0.40	1.00
Y_3 - No. of Emp. Chg.	13.15	0.24	3	4.38	11.85***	0.26	1.00
Y_4 - Total Rev. Chg.	8.67	0.28	3	2.89	14.64***	0.30	1.00

¹ - Computed using $\alpha = 0.05$; *** - $p < 0.001$

The last step in the MANOVA model estimation procedure is the examination of differences across specific group pairs for all dependent variables. For that purpose, a priori tests were conducted, comparing each of the innovative types of firms (groups 1 and 2) with the non-innovative firms (group 3). The results of the "between groups" comparison are presented in Table 5.

Table 5. Between Groups Comparison Results

Dependent Variable	Group 1 vs. Group 3			Group 2 vs. Group 3		
	Estim.	Hyp.	Diff.	Estim.	Hyp.	Diff.
Y_1 - Avg. Lab. Prod.	0.22	0	0.22	-0.01	0	-0.01
Y_2 - Average ROIC	0.08	0	0.08***	0.03	0	0.03
Y_3 - No. of Emp. Chg.	0.29	0	0.29*	0.07	0	0.07
Y_4 - Total Rev. Chg.	0.25	0	0.25*	0.01	0	0.01

* - $p < 0.05$; *** - $p < 0.001$

This contrast type, known as *simple contrast*, was well fitted to the main interest of this study. Namely, to examine the impact of firm's innovativeness on business performance and, simultaneously, the moderating role of the firm's educational system it makes sense to perform exactly this type of comparison.

3.2.3. Discussion

All conducted tests, both multivariate (Table 3) and univariate (Table 4), show a significant main effect of the firm type (variable X_i) on business performance, which is indicated with four dependent performance variables. This means that there exists a significant difference in firm's performance depending on the group that a particular firm belongs to. The pattern of performance decrease between groups of firms could be observed from Table 1 and, especially, from the diagrams displayed in Figure 1.

A MANOVA follow up analysis (Table 5) has showed that a significant (genuine) group difference exists for three dependent variables – Y_2 , Y_3 and Y_4 , between Group 1 and Group 3, while same cannot be asserted for the comparison between Group 2 and Group 3. For the fourth dependent variable (Y_1) there were no significant differences for any group comparison.

These research findings suggest that, even though more than a half of the surveyed firms were innovative during the observed period, only those firms that simultaneously invest in innovation and employees' knowledge and skills improvement have achieved superior performance. In other words, the research model provides an important insight relating to the interactive impact of innovation and education on firms' performance.

4. CONCLUSION

This study aims to explore the interdependence between innovation, education and firm's performance outcome during the economic downturn. Relying strongly on the existing knowledge base, efforts were focused on the design of an appropriate research model that could be applied to the market conditions of the F B&H.

The analysis has shown that the interactive effect of innovation and staff education (training) does produce a difference in firms' performance outcome. More specifically, only those firms that simultaneously invested in innovation and their educational system have achieved a significantly higher performance outcome than non-innovative firms. This represents the single most important finding of the study.

There are a few different limitations that apply to this research. First, a single dataset was used in this study and no validation of the model was performed. Furthermore, all collected data come from one country only, so the obtained results could be generalized only for the population from which the sample was drawn. Thus, future studies may validate the model and make it more general by applying it to different datasets.

This research and its results contribute to the body of knowledge related to organizational performance by providing a further insight into the mutual interaction between innovation and education and their combined impact on business performance.

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**FOSTERING INNOVATION THROUGH CREATIVITY
STIMULATION METHODS IN CROATIA**

JEL classification: O31

Abstract

The essential prerequisite for an innovation to occur is creativity. Novel ideas, novel solutions of problems are the initial stage of innovation process, but they are also indispensable throughout the innovation process. Innovating firms thus must strive to foster creativity. Literature provides evidence that, apart from personal characteristic of individuals, other factors play important role in unleashing creativity inside firms. Those include, among others, creativity trainings and reward systems designed to encourage creativity of employees. The key question addressed in the paper is whether creativity fostering methods increase innovation output in Croatian firms. By utilizing the Community Innovation Survey 2010 data and propensity score matching methods, we estimate the average treatment effect of the treated (i.e. firms that employ creativity stimulation methods). Within this framework, our measured outcome is the innovation activity of the firm and the treatment is the creativity stimulation method used by the firm.

Keywords: *innovation, creativity, Croatia.*

1. INTRODUCTION

Firms that aim to grow through innovation need to encourage and unleash creativity of employees. Starting with idea generation and further throughout innovation process, creative thinking is indispensable part of

innovating. Thus, firms strive to encourage innovation by employing several creativity stimulating methods.

The nature of creativity is rather complex as it requires many resources, such as intellectual skills, knowledge, motivation, personality, thinking styles and environment (Sternberg, 2006). Sternberg (2006) pointed out environment as one of the components relevant for creativity, but he also advocates that decision to use all the six abovementioned resources is more important than possessing them. This indicates that creativity is not just an intrinsic characteristic that cannot be developed and encouraged. Shalley, Zhou and Oldham (2004) argue the employees' creativity is a function of personal characteristics, the characteristics of work context and interactions among personal and contextual characteristics. These personal characteristics have important economic consequences. Through traditional channel, which according to Swann and Birke (2005) leads from creativity via innovation and productivity, to increases in business performance, firms are expecting to improve their relative position on the market. Both researchers and practitioners seek to find techniques that will foster and nurture creativity and hopefully through this process foster innovation as well. Recent literature favors the notion that creativity can be stimulated, nurtured and even taught.

Fostering innovation is relatively more important in transition economies, for which the indicators on innovation activity reveal significant gap to more advanced market economies (Eurostat, 2013). The question is whether this gap can be narrowed by implementation of specific measures within the enterprises, and in particular within the innovative enterprises. Recent contributions in the literature on transition economies reveal that skill enhancement within the firm produces more results than improvements in general education. For example, Nazarov and Akhmedjonov (2012) suggest that further investments in education will not lead to improvements in firms' innovativeness, while on-the-job training will. Furthermore, Gashi and Adnett (2012) show that firms that undergo technological change are more likely to provide training and to a greater intensity. Thus, studies show that innovative firms seem to have recognized the importance of their employees in transition economies as well as in market economies.

In this paper we explore creativity enhancing methods used by Croatian firms. Our main interest is to evaluate whether the implementation of these methods affects innovation output. The structure of the paper is following. Section 2 provides study context within the related literature and discusses the data sources used in empirical analysis. Section 3 explains estimation strategy. Section 4 presents the results and discussion. Last section brings conclusions.

2. LITERATURE REVIEW AND PRELIMINARY DATA ANALYSIS

Eurostat (2013) data shows that innovative enterprises as a percentage of all the enterprises in Croatia are below comparative data for EU-27 average. At the same time, promotion of innovation seems to be one of the key policy goals, emphasized in public debates. This makes the issue of analyzing policy measures for increasing innovation performance in Croatian economy important. In this paper, we want to address this issue from the perspective of enterprises and their activities to increase innovation. One of such actions could be to promote the creativity of their employees.

The creativity stimulation methods used by the enterprises might be various in nature and form. In the present paper, we restrict our analysis to following six methods:

- Brainstorming sessions (brain)
- Multidisciplinary or cross-functional work teams (multi)
- Job rotation of staff (rotac)
- Financial incentives for employees to develop new ideas (fina)
- Non-financial incentives for employees (nefin)
- Training employees on how to develop new ideas (tren)

Although the choice of methods analyzed is partially guided by the data available for empirical analysis, it has to be emphasized that each of these methods has been widely discussed in the literature. We subsequently briefly discuss the most relevant findings in the literature.

Brainstorming is one of the most popular and well-known techniques in business practice. It is a creativity exercise (Trott, 2003) for generating ideas in group. This technique is often used in innovation development, in particular in early stages. Since it is wide-spread, we would expect that it is also frequently used by Croatian enterprises.

Innovative firms widely rely on cross-functional teams when it comes to new product development, because it has been found that they speed-up the product development process (McDonough, 2000). It has even been argued that identified dedicated cross-functional teams are one of the critical success factors of innovation projects (Cooper, 1999). Cross-functional teams contribute to innovation projects success, but they are not easy to implement. This is primarily due to different approaches and goals of team members as well as possible conflicts that occur among business functions. Strategic alignment of functions, team accountability and organizational culture that encourages teamwork contribute to successful implementation of cross-functional teams (Holland, Gaston and Gomes, 2000).

Job specialization is frequently associated with attempts to avoid boredom and monotony of performing limited number of operations daily (Ferrell

and Hirt, 2000). In those situations employing job rotation scheme to ensure better understanding of activities performed in other departments (Jones, George and Hill, 2000), might spur employees' creativity. However, job rotation might have many potential disadvantages, if workers consider some jobs less attractive or valuable. Additionally, those might be related to the question of adequate wage-rate for performing work other than previously agreed-upon.

At the first glance, it could be suspected that within transition economies, financial incentives would be most welcomed by employees. Remuneration can potentially ensure accomplishment of various organization goals, including innovation. However, it doesn't necessarily lead to desirable results and it is questionable if it will result in more ideas, inventions, innovations (especially radical innovation). Literature even suggests negative effect of rewards on creativity (Amabile et al., 1996). Therefore, Maella (2012) argued that financial reward scheme should not aim to achieve specific results but encourage desirable behavior that is especially relevant for innovation and creativity. Zhou and Shalley (2003) point out that rewards should strive to recognize competences, attempts and accomplishments in creativity. Ederer and Manso (2013 published online) find that pay- per -performance that tolerates early failure enables innovation.

Apart from financial incentives, non-financial incentives such as public recognition, promotion to more interesting job position, decision making autonomy, job security, and transfer to attractive location are used for rewarding employees (Thompson and Strickland, 1996). For example, Oldham and Cummings (1996) find that encouragement from supervisors plays important role for fostering employee's creativity. Since these comprise of intangible and sophisticated measures, without prior analysis it is hard to speculate how widespread such measures are in transition economies. In particular, as some of the measures might be viewed as incentives by employers, but remained unrecognized as such by employees.

On the contrary, training methods can encompass specific needs related to the specific innovation development, and could be most directly recognized by the employees. Basudur, Wakabayashi and Graen (1990) provide evidence that training programs positively affect creativity of employees. Naturally, we expect that these are also used in Croatian innovative firms.

The above-mentioned methods are some of the most prominent tools for fostering creativity. Extensive literature provides evidence of their relevance for stimulating creativity, and eventually for having positive influence on enabling innovation. However, the implementation of these methods requires skills and competences. Given the nature of creativity and complexity of innovation process, positive results are not guaranteed. Therefore, it is important to explore whether these methods have proven to be beneficial for innovation outcome in Croatian enterprises. In the remainder of this section we look into implementation of creativity stimulation methods in Croatian firms.

The empirical analysis in the paper is performed on the level of individual firms. The original database used for the analysis was the Community Innovation Survey 2010 (CIS 2010) for the period 2008-2010, as conducted by the Croatian Central Bureau of Statistics (CBS). CIS 2010 is conducted according to the same methodology in EU Member States, which enables comparison of certain indicators across European countries. In Croatia, the CIS 2010 sample consists of 4500 enterprises. Due to the relatively high response rate¹, the sample used in the present analysis comprises of 3390 enterprises.

Eurostat data on successful implementation of creativity stimulating methods generally finds that percentage of Croatian enterprises using the method is close to the average of other European economies for which the data exists. For example, if we consider the method of training employees, we will find that 24 percent of innovative Croatian enterprises have used this method successfully, comparing to the average of 22 percent in EU countries. The same applies to other methods, and we can conclude that innovative firms in Croatia generally do not lag behind EU countries in implementation of creativity stimulating methods. Thus, raising awareness of the existence of these methods does not seem to be a relevant policy recommendation.

Next, we explore presence of each of the methods in firms in Croatia based on sample data. It is worth noting that following table gives the data on implementation of creativity stimulation methods in all firms in the sample as well as in innovative and non-innovative firms regardless of the success assessment reported by respondents. This is because success of methods can be assessed in various terms that correspond to individual perception of creativity and goals they expect to achieve employing particular method. In this study we don't want measure of creativity to interfere with respondents' measure of creativity. Thus, it is relevant only that creativity stimulating method was implemented during the three-year period.

The most implemented method is job rotation (22.12 percent) followed by training programs (20.29 percent). It appears that firms in Croatia still don't sufficiently recognize potentials of cross-functional teams for fostering creativity. This method is implemented in 17.05 percent of respondents. Furthermore, financial and non-financial incentives are not strongly favored when it comes to stimulating creativity. Creativity stimulation is built around more sophisticated methods.

¹ More details on methodology can be found in Croatian Bureau of Statistics, INNOVATION ACTIVITIES IN CROATIAN ENTERPRISES, 2008 – 2010, First release NUMBER: 8.2.2, 13 JULY, 2012 <http://www.dzs.hr/>.

Table 1 Implementation of methods for stimulating creativity in firms in Croatia, in percent

	All	Innovators	Non-innovators
Brain	19.29	34.23	6.99
Multi	17.05	31.22	5.38
Rotac	22.12	37.10	9.79
Fina	18.41	32.40	6.89
Nefin	18.47	32.58	6.84
Tren	20.29	37.49	6.13

Source: authors' calculation based on CIS.

As for the innovators, data reveal that the most used methods are job rotation and training programs for stimulating creativity (Table 1). Job rotations are widely used method in non-innovative firms as well. As for financial and non-financial incentives, they are almost equally popular methods for fostering creativity in both innovative and non-innovative firms. Furthermore, 12.5 per cent of all firms and 21.94 per cent of innovators implemented both financial and non-financial incentives simultaneously. As previously mentioned, cross-functional teams are the least used method in Croatian firms, both innovative and non-innovative.

The method to assess whether these activities of the Croatian firms have resulted in more innovation activity is discusses in following section.

3. ESTIMATION STRATEGY

The key question that we want to address in this paper is whether the enterprises that use creativity enhancing methods for their employees are having greater probability of innovation than enterprises that do not use these methods. For the purpose of obtaining quantitative answer to this question, we estimate the average treatment effect on the treated. The basic concepts are following. If Y_0 is the outcome without treatment and Y_1 is the outcome with treatment, D is an indicator of the recipient under the treatment (thus equals 1 if under the treatment and zero otherwise), the overall observed outcome is following:

$$Y = DY_1 + (1 - D)Y_0 \quad (1)$$

The treatment effect, which we cannot directly observe and thus must estimate with appropriate method, is:

$$\Delta = Y_1 - Y_0 \quad (2)$$

We would like to estimate whether there is a desired effect of specific creativity enhancing method, and whether it is significant. Thus, we are interested in average treatment effect of the treated (ATT), which theoretically is derived for N enterprises from the following:

$$E(Y_1 - Y_0 | D = 1, X) \quad (3)$$

The best theoretical approach for evaluation of such effect would be to have the access to the random sample of enterprises that either received treatment (i.e. used the creativity enhancing method) or not. Since we are not conducting the experiments, but rather rely on the existing data sources, we have to recreate the control group that would allow us to estimate the effect. To that end we rely on matching. When using matching procedure, we have to check if our sample consists of enterprises that are under treatment and those that are not (in our case we have the data on enterprises that used the creativity enhancing methods and those that have not used those from CIS). Another assumption is that we have the data on a set of variables X whose distribution is not affected by the decision (D) to use the creativity enhancing methods. In our case, we have the variables resulting from the CIS survey which correspond to questions answered both by the treated and control groups of enterprises. In that case, matching estimators match up the treated enterprises with observably (according to the X set of variables) similar untreated enterprises. In cases when there is a large set of X variables, we could have various points of similarity and dissimilarity. To reduce this to a single measure, propensity scores - $\Pr(D = 1|X)$ - can be assessed following Rosenbaum and Rubin (1983) theorem.

The propensity score matching algorithm entails estimation of probabilistic or logistic function of the treatment variable, resulting from the specific observable characteristics of the program participants (X variables). In our case, the goal is to determine the factors behind the probability to utilize a specific creativity enhancing method specified in Section 2.

For each of the six treatment variables, a propensity score matching algorithm was applied using the same set of initial potential explanatory variables. Since there are no prior empirical estimates of these phenomena in Croatian literature, we have included a larger set of independent variables in our specifications in order to be able to detect the counterfactuals with similar characteristics. That implies that we resolve to use all the possible variables. In terms of CIS questionnaire, this means all the answers that all the participants had to provide. Additional reason for this approach can be found in Heckman, Ichimura, and Todd (1997), who warn against omitting important variables in the procedure, since this can seriously increase bias in resulting estimates.

The dependent variable in propensity score matching algorithm is binary, with obtaining value 1 if the method was used in the enterprises (regardless of its successful implementation or not) and value 0 if the method has

not been used. The choice of independent variables in our probit equations is guided by the data source (i.e. CIS), and consists of variables specified in Appendix A1.

For each of the six treatment variables, a separate probit model was used to identify propensity scores, due to the fact that propensity score matching algorithm requires that the balancing score property is satisfied². The propensity scores were then used to identify the enterprises belonging to the control group and to estimate the average treatment effect of the treated based on the differences between treated and control groups. The outcome variable in our case is defined as overall innovation activity of the enterprise³. This is also a dummy variable which obtains value 1 if enterprise had any type of the innovation activity:

- Products innovation: new or significantly improved products, new or significantly improved services
- Process innovation: new or significantly improved methods of manufacturing or providing services, new or significantly improved logistics, delivery or distribution methods for inputs, goods or services and new or significantly improved supporting activities for the processes
- Ongoing innovation projects (product and process innovation)
- Organizational innovation: new business practices for organising procedures, new methods of organising work responsibilities and decision making and new methods of organising external relations with other firms or public institutions
- Marketing innovation: significant changes to the aesthetic design or packaging of a good or service, new media or techniques for product promotion, new methods for product placement or sales channels and new methods of pricing goods or services.

Due to the fact that this issue has not been analyzed previously in Croatian literature, we have estimated the ATTs based on two methods: nearest neighbour matching and kernel matching. The nearest neighbour algorithm iteratively finds pair of subjects with the shortest distance. We also use Epanechnikov kernel function⁴, which allowed us to perform post-estimation diagnostics. For example, to further elaborate the relevance of our independent variables selection, we have performed matching covariates balancing property test⁵. The purpose of the test is to identify the differences between the treated and

²Estimated probit for each creativity enhancing method is shown in the appendix A2.

³ The method used relies on rather strong assumption that all variables that influence treatment assignments (i.e. covariates in probit regression) and potential outcomes are observable and available in dataset (Caliendo and Kopeinig, 2005). Yet, there might be factors that affect both innovation and creativity, which are not covered by Croatian CIS dataset. To deal with this potential endogeneity issue, we would require a richer dataset.

⁴This has been obtained by following `psmatch2` procedure in STATA 11.

⁵Results available from the authors upon request.

control group before and after the matching, with the desirable result that reduction of the bias in the difference of the mean between target and control group is large as a consequence of the performed matching. Similarly, even though the number of treated and control variables were large enough to utilize analytical standard errors, we have also checked whether bootstrapping of standard errors might result in less significant treatment effect. Since bootstrapping only confirmed the results obtained from analytical errors, we do not present additional data here as well⁶.

4. RESULTS AND DISCUSSION

The results of average treatment of the treated effect estimated according to the nearest neighbour and kernel matching algorithms are presented in Table 2 and subsequently discussed.

Table 2: Average treatment of the treated effect

Method	Nearest Neighbour Matching		Kernel Matching	
Treatment	Number treated/control	ATT (standard error)	ATT (standard error)	Γ (Q_mh+)
Brain	654/2398	0.162*** (0.033)	0.179*** (0.028)	> 5.9
Multi	568/377	0.194*** (0.035)	0.224***(0.024)	> 7.0
Rotac	740/899	0.156*** (0.030)	0.177*** (0.021)	> 4.7
Fina	612/664	0.194*** (0.031)	0.193***(0.021)	> 5.8
Nefin	613/634	0.131*** (0.032)	0.163*** (0.023)	> 5.9
Tren	675/755	0.189*** (0.030)	0.230*** (0.021)	> 8.3

Notes: *** denotes significance at the level of 1 percent. For testing Mantel-Haenszel bounds we report the value of Γ associated with p-values larger than 10 percent.

Source: authors' estimates.

⁶It could be obtained from the authors upon request.

The results confirm that using each of the creativity enhancing methods has a positive impact on innovation activity in Croatian enterprises. It is reassuring that the treatment effect is found positive and significant by two alternative methods. To confirm these results, we have also performed sensitivity analysis to check if there are unobservable variables that affect assignment into treatment and outcome simultaneously. If such hidden bias existed, it might reduce the robustness of matching estimators (Becker and Caliendo, 2007). To examine this possibility, Mantzel-Haneszel bounds test was performed, which lets the researcher determine how strongly an unmeasured variable must influence the selection process to undermine the implications of selection process. Given that the estimated effect is positive, we are more interested in the possibility of overestimating the treatment effect and the presented Gamma values in Table 2 refer to that case. Our results typically imply that it would require high values of Gamma for the result not to be significant. Thus we conclude that the estimated models provide enough evidence to draw some conclusions.

So, what can we infer from these estimates? The comparisons of the estimated treatment effects are presented in Figure 1. First, it seems that we can fairly conclude that non-financial incentives to employees are the least likely to result in more innovation. Brainstorming sessions as well as job rotation schemes seem to be the next two with slightly higher innovation performance. For the last three methods – multidisciplinary teams, financial incentives and training – we cannot give clear answer which is the most effective. On average, it seems that financial incentives are the least effective of these three. However, they are most consistent across the different methods of treatment effect estimation. The other two – multidisciplinary work teams and training methods – have higher average and also higher variation in estimated treatment effect.

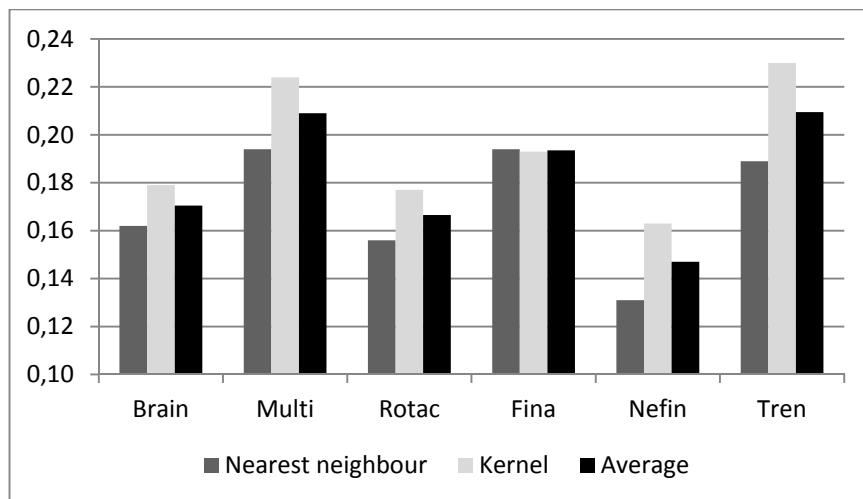


Figure1 Comparing estimated ATT's

Source: authors' estimates.

If we reconsider the data presented in Table 1, we will notice that innovators use job rotation methods relatively less than non-innovators (i.e. both types of enterprises find this method favourable). Yet, relatively least effective is non-financial stimulation, which has approximately the same relative usage ratio as financial stimulation. The fact that the ranking of effectiveness of methods used is different than rankings of relative usage of the same methods, points to the additional information obtained from the empirical estimates.

It can be speculated that within Croatian business-culture domain, methods such as training and job rotation, are well-established and recognized by the employees as those with strictly defined goal. Another well-established and recognized measure is related to financial incentives. Yet, our results seem to be in concordance with the literature claiming that financial incentives are less appropriate for creative tasks (Ariely, Kamenica and Prelec, 2008), than for less creative tasks.

Similar explanation could be related to the relative least effectiveness of the non-financial methods. Although they are frequently emphasized in the literature as being neglected, but still important social incentives (Heyman and Ariely, 2004), they might not be clearly enough communicated to the employees. So, the effects of these methods might be smaller.

Even though we have speculated some of the reasons for the ranking of the effectiveness of the analyzed methods, we have to emphasize that these are far from being firm conclusions. Additional research efforts, which are beyond the scope of the present paper, are required to be able to support these arguments. Thus, this offers a roadmap for future research on this interesting topic.

5. CONCLUSIONS

The analysis of Croatian enterprises has revealed that the relative frequency of creativity stimulation methods resembles those in other European economies. Thus, it seems that Croatian enterprises are familiar with methods used by the enterprises in their geographical vicinity. Awareness of importance of such measures is thus established, so the main contribution of this paper is on the effectiveness of the methods implemented.

The creativity enhancing methods have been considered as treatment variables in the empirical analysis, while the outcome has been the innovation activity of the firm. The analysis of effectiveness of such methods for innovation activity has proved that each of the method analyzed in the paper has been associated with positive and significant effect on the innovation performance. This finding is not surprising as positive effects of these methods are proven in business practice and confirmed in studies in other countries. However, in the context of Croatian firms this is an important finding because it indicates that firms are capable to implement these methods adequately to foster innovation.

The empirical analysis of average treatment effect of the treated across two different estimation algorithms applied reveals that the most effective measure seems to be training, followed closely by multidisciplinary working teams. On the other hand, non-financial creativity enhancing methods seem to be least effective. Though, these rankings slightly differ when each estimation method is considered, it could be argued that the results that we have obtained follow some stylized facts related to Croatian enterprises. However, since this paper provides first attempt of the analysis of these issues, future research efforts are required to substantiate our findings. One possible extension should take into consideration factors affecting simultaneously creativity and innovation, such as management style, exposure to various business practices, and general business environment. Another extension would be related to incorporating time factor into the analysis.

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APPENDIX

Table A1 Independent variables in propensity score matching

Variable	Definition
Gp	=1, if enterprise belongs to a group
Market	=1, if the enterprise established sales on EU and other international markets
Univer50	=1, if the share of employees with university degree is larger than 50 percent
Emp ch	= employment change 2010/2008
Turn ch	= turnover change 2010/2008
In-house and external skills available in the enterprise 2008-2010 period:	
Sgala1	=1, graphics, layout, advertising – within enterprise
Sgala2	=1, graphics, layout, advertising – external sources
Sdos1	=1, design – within enterprise
Sdos2	=1, design – external sources
Smed1	=1, multimedia – within enterprise
Smed2	=1, multimedia – external sources
Swds1	=1, web design – within enterprise
Swds2	=1, web design – external sources

Sswd1	=1, software development – within enterprise
Sswd2	=1, software development – external sources
Smkr1	=1, market research – within enterprise
Smkr2	=1, market research - external sources
Senap1	=1, engineering, applied sciences – within enterprise
Senap2	=1, engineering, applied sciences – external sources
Smsdm1	=1, mathematics, statistics, database management – within enterprise
Smsdm2	=1, mathematics, statistics, database management – external sources

Source: Central Bureau of Statistics, CIS.

Table A2 Probit estimates for propensity scores

Variable	Dependent variables					
	brain	multi	rotac	fina	nefin	tren
Gp		.53*** (.06)		.05 (.06)	.02 (.07)	.07 (.06)
Market		.22*** (.06)		.23*** (.06)	.09 (.06)	
Univer50	.39*** (.11)	.19 (.12)	.23** (.11)	.29*** (.11)	.22* (.12)	
Emp_ch			.02 (.01)	.01 (.01)	.02** (.01)	.02* (.01)
Turn_ch		-.00 (.00)				
Sgala1	.45*** (.08)	.13 (.09)				
Sgala2	.32*** (.08)				.08 (.07)	-.03 (.08)
Sdos1		.40*** (.08)		.25*** (.08)	.29*** (.08)	.38*** (.08)
Sdos2	.38*** (.08)		.28*** (.07)		.49*** (.08)	.35*** (.09)
Smed1				.20** (.10)	.39*** (.10)	.38*** (.10)
Smed2	.21** (.08)		.19** (.08)			.14 (.09)
Swds1			.17** (.08)	-.01 (.09)	-.01 (.09)	-.06 (.09)
Swds2	.23*** (.07)	.40*** (.06)				.10 (.08)
Sswd1	.66*** (.08)		.53*** (.08)	.57*** (.09)	.43*** (.09)	.50*** (.09)
Sswd2			.47*** (.06)	.51*** (.06)	.45*** (.07)	.35*** (.07)
Smkr1	.13* (.07)		.36*** (.06)	.29*** (.07)	.18** (.07)	.49*** (.07)
Smkr2	.57*** (.08)			.18** (.09)	.05 (.09)	.21** (.09)
Senap1	.27*** (.07)	.24*** (.07)	.24*** (.06)	.30*** (.07)	.31*** (.07)	.23*** (.07)
Senap2	.03		.34***	.16	.17	.33**

	(.10)		(.10)	(.10)	(.10)	(.10)
Smsdm1	.33*** (.08)	.73*** (.07)			.22*** (.08)	
Smsdm2		.51*** (.09)	.03 (.09)	.06 (.09)	.10 (.10)	-.02 (.05)
Constant	-1.66*** (.05)	-1.81*** (.05)	-1.36*** (0.04)	-1.61*** (.05)	-1.70*** (.05)	-1.57*** (.05)
Diagnostics						
N	3390	3303	3308	3306	3305	3306
Pseudo R2	.25	.22	.14	.15	.20	.20
LogL	-1249.28	-1180.51	-1514.82	-1343.25	-1275.17	-1343.37

Notes: Standard errors in parentheses. Coefficients marked *** are significant at level of 1%, ** at level of 5%, and * at level of 10%. Restricted to common support. The balancing property of the propensity score procedure is satisfied.

Source: authors' estimates.

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INNOVATION AND ESTONIAN TAXATION SYSTEM

JEL classification: E62, H20

Abstract

The economic crisis of 2008-2010, which has hit the world, especially the Baltic States with their ultraliberal economy, has forced Estonia to look for solutions to overcome the depression. A low level of taxation, the policy of “thin state policy” and small public sector have influenced the macroeconomics of Estonia since its re-independence. The indirect taxes, especially consumption taxes, are dominating in the Estonian taxation system.

The increase in the tax burden of a little more than 2% in 2009, through the increase in VAT and excises, and through the pruning of income taxation benefits, did not enlarge the state budget in the same amount. The pruning of the budget not only rapidly decreased the internal market of the state, but also decreased incomes in future periods due to the dominance of consumption taxes. The economic depression, which began in 2008, has demonstrated a weak orientation of the Estonian economy, threatening its taxation system and innovation. The author considers the reason for this to be a big percentage of consumption taxes in the Estonian state budget. The amount of investments has essentially decreased more than the decrease of GDP and the state budget.

***Key words:* taxation, tax burden, economic crisis, innovation**

1. INTRODUCTION

This paper does not deal with the direct role of the state in the innovation process. We are trying to observe influence of some aspects of the Estonian taxation system on private entrepreneurship and respectively on innovation. The Republic of Estonia has driven the policy of a “lean state”. This is why costs in most fields, among them scientific research and especially R&D have been low and the role of entrepreneurship in innovation processes has been important.

Any kind of entrepreneurship needs a specific environment for its development. Environments can be of different kinds: social, economic, technological, ecological, legal and so on. A positive cumulative effect of all these environments is needed in order to obtain maximal results, whereas deviation by any of them may induce conspicuous consequences for entrepreneurship.

Nations are interested in developing their economies. After the demise of the centrally planned economy, all the newly independent countries have become interested in an economic environment that supports entrepreneurship. At the same time, it is quite difficult to change many of the components of the entrepreneurial environment, especially in the short run. Economic policies try to coordinate some of the most important changes in the components of the economic environment. As entrepreneurship has the purpose of generating profit, thus it is very important to regard the profit margin as a guiding force in entrepreneurship (Mises, 2000, 13).

Estonian experiment with the virtual lifting of corporate income tax since January 2000 sought to create additional resources for investments in the private sector. As the money was left for the enterprises without any limits, so a question arose: if the money was used for investments, were they made in Estonia and were the investments innovative?

The economic crisis, which has lasted 2007-2010, has decreased GDP by more than 20% and essentially decreased the state budget (in spite of the raising of taxes), and posed a question about the efficiency of the Estonian state budget and its correspondence with modern demands. Certainly, tax as the most important source of state budget income is a question of special interest. As the tax funds of the last two years demonstrate, the current taxation system has not been able to ensure the stability of budget incomes despite the raising of taxes. In explaining the severe decrease in the state budget, we could ask what role the economic crisis and the specificity of the Estonian taxation system had played. Particularly, what have been the impacts of the tax burden, taxation structure, payment order etc. (the economic policy of government), especially budget paring, on an essential decrease in tax funds?

Let's observe only one question of this complicated complex of questions. How has the decrease in the incomes of Estonian state budget taken place; and what connection exists between this process, the theoretical indirect taxes model and the Estonian taxation system, especially with the structural

specificity of taxes? The second problem considered is the influence of budget paring on eventual tax funds. It is obvious that if the budget income, which is anyhow small, were to decrease, then there would be a brake on the state's capacity to support innovation. Direct investments and state support for R&D would be decreased.

A special model for the research was not constructed by the author. The most wide-spread methods of economic research have been used in the paper – comparison, analysis tables and observation of dynamics; these methods proved to be effective in current situation. The data are given in euro. The official rating of EEK to euro before 2011 was 15.6466 all the time.

1.1. Estonian taxation structure

Before joining the European Union (EU) and from its beginning in 1993, the characteristic features of Estonian tax system have been a relatively low tax burden, simplicity bordering on primitiveness (which has significantly reduced the possibilities of using taxes as a control device in the economy) and a very high percentage of indirect and consumption taxes.

The tax burden in Estonia has been 33.7–35.1% since Estonia joined the EU (Estonian ministry of finance website <http://www.fin.ee/>). The tax burden ought to increase to 36% as a result of taxation rises in response to the economic crisis in 2010 (ibid). It is lower than the EU average (40–41%). However, these numbers are not comparable. The Estonian state budget includes social benefits tax, which has for many years been the greatest source of income for the state budget (Table 1). In most EU Member States such a tax does not exist or is slight.

A principal change was introduced in the tax system on 1 January 2000: corporate income tax was lifted in Estonia. The idea of using low taxes to attract foreign investments is not new; all offshore systems are based on this. Nor is it a new idea that profits ploughed into real assets will increase the value of these assets, thus enabling the assets to reproduce themselves. The lack of internal accumulation accrued in all transition countries, which did not merely constrain enterprise innovation, but became even worse at simple reproduction. Yet, theoretical arguments by both authors of the reform and those applying the reform ideas in Estonia are open to challenge.

Lifting the corporate income tax in Estonia can be regarded as an experiment which turned the notion of the “object of taxation” upside down. It has become a common concept that entire profit be subject to taxation, only certain ways of using profit (for example payment of dividends, specific benefits, etc.) have been made objects of taxation. As such, the law should provide an exhaustive list of ways of using profit subject to taxation, instead of barely mentioning the tax incentives. However, no list can be entirely exhaustive. Consequently, opportunities for tax fraud present themselves here, all the more so because quite often virtually the same payments can go by different names.

Estonian taxation practice differs from that of many countries also in the timing of the creation of tax liability. According to general practice in many jurisdictions, corporate income tax liability arises instantaneously as the profit amount has been confirmed. Possible delays can be caused only by verifying accounting statements or by settling accounts. Under Estonian law, however, the profit earned can remain intact on the companies' bank accounts for years as it is not subject to taxation unless being used for out-payments.

Savings are a natural source of investments. In the transition period for states with small GDP and most households being unable to satisfy their primary needs, savings make up a small percentage of GDP. In 1998, domestic savings in Estonia were about 20.3% of GDP, at the same time domestic investments made up 16% of GDP (Eesti Panga Bülletään, 2003, 1 p.7). Obviously, the difference is due to certain historical characteristics inherent in the states undergoing transition in the second half of the 20th Century. The demand that had not been satisfied for decades and was typical of the communist system before its collapse could be satisfied now and households have used their money to consume it not for investments. The information below explicitly indicates a relatively low level of domestic investments, and more particularly, their small total amount. Investments are one of the most important inputs for production, and their scarcity in a certain period is an extremely. The Estonian Institute of Economic Research has sampled that the insufficiency of investments was in first place among the factors that broke the economy in 1993–1996.

It is very difficult to find a connection between the lifting of corporate income tax and levels of foreign direct investments (FDI). The expansion rate of GDP depends on the economic cycle more than on FDI. The influences of other factors such as business expectations and the niche for international companies in the Estonian market have been greater than the impact from lifting corporate income tax.

Certainly, a question will arise: why have the foreign direct investments into Estonia remained below the level expected? First, the most profitable fields of economy in Estonia had been acquired by foreign owners already before 2000. Secondly, it should not be forgotten that the rate of income tax is just one of the factors by which investors choose the place their investments. Thirdly, the competitive ability of Estonia and Eastern Europe in engaging foreign investors has not been dealt with. In 2002 the corporate income tax for the EU-25 was 2.4% of GDP (Maggiulli, 2004, p17-18). The Estonian figure of 1.7% is not sufficiently different from this average to be an effective incentive. Moreover, this figure was still smaller in Latvia, Lithuania and Croatia. In Estonia and Slovenia the corporate income tax indicators were almost identical. Estonia is not much more attractive with its investment taxation policies. Moreover, many states such as Croatia, Lithuania and Slovakia, where special benefits are not taxed, are not less attractive for investors in terms of profit taxation.

Table 1. Income from taxes in Estonian state budget 2005–2012 (million euro).

	2005	2006	2007	2008	2009	2010	2011	2012
Total taxes	3440	3528	4328	4499	4076	4046	4341	4775
Personal income tax	697	246	306	277	155	192	209	266
Corporate income tax	152	200	261	266	255	194	201	252
VAT	896	1192	1425	1313	1202	1248	1339	1494
Excises	411	449	524	574	627	666	717	776
excise on tobacco	77	77	98	119	133	115	153	158
excise on alcohol	117	133	148	155	166	165	198	195
excise on fuel	215	238	278	300	311	311	355	390
excise on packaging	...	1
Gambling tax	19	16	30	31	18	21	22	20
Customs tax	22	17	35	32	20	24	29	29
Social benefits tax	1175	1390	1743	2000	1795	1698	1801	1933
Other taxes	68	3	4	6	4	4	23	15

Source: author's calculations (Estonian Ministry of Finance website <http://www.fin.ee/budgeting/>; Eurostat. Taxation <http://epp.eurostat.ee.europa.eu/portal/page?-pageid/>)

As for innovation, a certain aspect should be stressed – because the Estonian taxation system allows enterprises to keep their profit without taxation for an unlimited time, the enterprises do not have a strong incentive to spend the money quickly or for innovative purposes (Eesti Vabariigi..., 2008 p.188; Eesti Vabariigi..., 2009, p. 93).

Table 1 presents taxes in the Estonian state budget from 2005; that is, after Estonia joined the EU. It is difficult to assess the percentage of indirect taxes in the Estonian state budget. Indirect taxes clearly include VAT, excises and the customs tax. The percentage of indirect taxes has been 53.6%. It is one of the highest percentages of indirect taxes among EU member states.

The figures demonstrate a growing dominance of social taxes in Estonian state budget tax funds from 34.2% in 2005 to 44.4% in 2008 (44.0% in 2009). The crisis, which began in 2008, froze the sums paid as wages in 2009 due

to unemployment and led to the decrease in social taxes. It dented the state budget of Estonia and essentially cut the size of the budget for 2010. Clearly budget incomes, which are based on consumption taxes, have great elasticity during periods when incomes and consumption are rapidly growing, but a system of this kind has a low floatage (Table 1).

The figures in Table 2 demonstrate once again that the tax funds react to GDP changes with some lag time. The peculiarity of the state budget of the Republic of Estonia – a great proportion of which is consumption taxes – produces a pattern whereby the tax funds are in correlation with the dynamics of wages (especially in 2008) rather than the dynamics of GDP. A smaller decrease in tax funds in comparison with GDP in 2009 has occurred from the growth of the turnover taxes rate by 2 percentage points, the increase of excises and the pruning of income tax benefits. The concrete influence of rising taxes and the influence of price elasticity on tax funds cannot be explained here.

Table 2. Dynamics of tax funds, wages, unemployment and GDP 2007–2012 (as a percentage in comparison with the same quarter of the last year).

Period	2007				2008			
	I	II	III	IV	I	II	III	IV
GDP	9.8	7.6	6.4	4.5	0.4	-1.4	-3.3	-9.9
Tax revenues	27.6	28.4	18.6	18.2	10.2	5.7	7.1	-2.8
Average wage	20.1	21.2	1.,9	20.2	19.5	15.2	14.4	6.9
Unemployment (%)	4.0	3.9	4.1	4.1	4.2	4.0	6.2	7.6
Period	2009				2010			
	I	II	III	IV	I	II	III	IV
GDP	-15.1	-16.5	-15.6	-9.7	-2.4	1.7	3.1	6.2
Tax revenues	-10.1	-12.1	-13.6	-10.9	5.7	-2.2	-1.0	2.2
Average wage	-1.5	-4.4	-5.9	-4.9	-2.3	-1.7	-0.7	3.9
Unemployment (%)	11.4	13.5	14.4	15.5	19.8	18.6	15.5	13.6
Period	2011				2012			
	I	II	III	IV	I	II	III	IV
GDP	11.4	12.7	9.8	4.0	3.4	3.5	3.4	3.7
Tax revenues	1.6	9.8	5.9	3.9	11.2	11.0	11.6	10.6
Average wage	4.4	4.2	6.5	4.1	4.1	4.2	4.3	5.9
Unemployment (%)	11.4	12.7	9.8	11.0	10.9	10.1	10.0	9.9

Source: (Estonian Ministry of Finance website <http://www.fin.ee/budgeting>; Eurostat. Taxation http://epp.eurostat.ee.europa.eu/portal/page?_pageid/)

1.2. Economic depression and the Estonian state budget

In some Eastern European states the economic depression 2008-2011 turned into a severe crisis which could be compared with the Great Depression of 1929–1932, especially in Estonia. Discussion of all these reasons is beyond the scope of this paper. But its range and course of crises 2008-2011 have been very different. As the crisis began in financial sector, so the states, wherein the income from the financial sector formed the greatest part of the GDP, suffered first of all. Due to urgent and powerful measures taken by these states the situation has been stabilized at this point.

Table 3. Indirect taxes in Estonian state budget 2005–2012. (million euro)

	2006	2007	2008	2009	2010	2011	2012
Total taxes	3528	4328	4499	4076	4046	4341	4775
Indirect taxes (social benefits tax included)	3084	3759	3953	3645	56923	3878	4230
Percentage of indirect taxes (% , social benefits tax included)	87.4	86.9	87.8	89.5	89.9	89.3	88,6
Indirect taxes (social benefits tax not included)	1694	2016	1953	1867	30351	2077	2297
Percentage of indirect taxes (% , social benefits tax not included)	48,0	46.6	43.4	45.8	47.9	47.8	48.1
Consumption taxes, social benefits tax included	3084	3759	3953	3645	56891	3857	4230
Percentage of consumption taxes (% , social benefits tax included)	87.4	86.9	87.8	89.5	89.9	89.3	88.6
Consumption taxes, social benefits tax not included	1694	2016	1953	1867	30329	2056	2290
Percentage of consumption taxes (% , social benefits tax not included)	48.0	46.6	43.4	45.8	47.9	47.8	47.8

Source: the author's calculations (data from table 1)

The state budgets have found themselves in an especially severe situation. The crisis, which began in 2008, frozen the sums paid as wages in 2009 due to the unemployment and it led to the decrease of social taxes. It beat the state budget of the Republic of Estonia and essentially cut the amount of

budget of 2010. Obviously, the incomes of budget, which base on consuming taxes, have got a great elasticity during the periods, wherein the incomes and consumption are rapidly growing, but a system of this kind has got a low floatage. (Table 3).

The figures of Table 3 demonstrate once again that the tax funds react on GDP hangs with some lag time. The peculiarity of the state budget of the Republic of Estonia – a great proportion of consumption taxes – brings a peculiar fact: the tax funds are in correlation with the dynamics of wages (especially in 2008) rather than the dynamics of GDP. The consumption taxes in table 3 have been given in two different ways: with social tax and without it. Namely, Estonia has got a unique social tax, which forms up to 33% of the sum of paid wages and which therefore has been treated as consumption tax of labour force by several authors. The relative importance of consumption taxes in Estonian budget is very big no matter if the tax is considered to be consumption tax (approach, which could be debatable) or not (Raju, 2013, pp.137-139). A smaller decrease of tax funds in comparison with the GDP ones in 2009 has diversely been occurred from the lifting of tax burden (the growth of turnover taxes rate by 2 percentage points, the increase of excises, and the decrease of income tax benefits). The concrete influence of taxes lifting and the influence of prices elasticity on tax funds can't be explained here.

People divide their available income into two: savings and consumption. The proportion of the average saving per person was 7.9% from available income in 2008; in 2009 it was 9.2%. The rest of available income was spent on consumption.

It is possible to calculate the proportions of decreased tax income caused by the negative supplementary budgets of 2008 and 2009 according to the tax rates, proportion of savings and employment expenses mentioned above.

The first negative supplementary state balance was accepted on the 19th June 2008. The amount of the first state balance – 5.980.827 thousand euro, was decreased by 205 174 thousand euro (3.4%). Even two negative supplementary state balances were accepted in 2009. In the first, expenses were cut by 420 269 thousand euro (6.3%) and in the second they were cut by 163 835 thousand euro (2.4%).

The tax income was reduced as a result of the negative state balances by 49095 thousand euro in 2008, and in 2009 at first by 234955 thousand followed by another 66224 thousand euro, a total of 301179 thousand euro in 2009. Accordingly, the decrease in returning income due to the different structure of cuts was 23.9% in 2008 and due to the negative supplementary state budgets, 32.1% and 40.4 % in 2009. The wages fund, which has the highest percentage of returning income, was especially cut in the last supplementary budget (Eesti Vabariigi..., 2008, p. 188; Eesti Vabariigi..., 2009, p.93; Eesti Vabariigi... 2010, p.233)

We still have to consider one further aspect. Every euro that is paid into the state budget circulates about 2.8 times a year. Based on the assumption that circulation is 2.0 times since negative balances are made in the middle of the year, we calculate that the negative state balances have cut the state balance income for future periods by at least 0.7 billion euro or 41.8% from their own proportion.

It's clear that the decrease of the incomes from the budget decreased the possibilities of the state to support innovative processes. The decrease appeared in two ways: the decrease of direct money from state for different RD processes and the decrease of the support of a certain field of private sector. Both of them are difficult to bring forth.

The part of costs for innovation was first time so-called officially publicized in the statement of 2010 State Budget draft act. (They weren't mentioned in the statement of 2009.) The (initial) costs of R&D of 2009 have been given there. The total sum isn't very small – it's 129 million euro, among that 79 million euro due to foreign support. (Eesti Vabariigi 2010 ... <http://www.fin.ee/budget/>). But unfortunately a methodology, which puts all the sums, connected with scientific research, under the innovation, has been used to calculate the sum. For example, the total amount of the sums of costs for Estonian Foreign Policy Institute as something, which gives some innovation, apparently isn't reasoned.

Due to the lack of data it's practically impossible to answer the question, how much did the costs of innovation decrease in a situation, wherein the state budget of 2009 was 11.7% smaller than the one of 2008 and the stated budget of 2010 further 0.1% smaller than the budget of 2009. Estonian statistics gives just the dynamics of the investments: 5,4 billion euro in 2007; 4.7 billion euro in 2008; 3,2 billion euro in 2009; and 2010 is 2.9 billion euro (Eesti Vabariigi..., 2010, p. 93). Therefore the investments have been decreased essentially more than GDP and state budget. If the decrease of investments is more than 45%, then it's obvious that all the investing activity has been impeded. The current system of the budget hasn't assured the sustainability of the innovative processes.

It is clear that the decrease in the incomes from the budget decreased the capacity of the state to support innovative processes. The decrease appeared in two ways: the decrease in direct money from the state for different R&D processes, and the decrease in support from the private sector. Both are difficult to quantify.

Expenditure on innovation was officially publicized for the first time in the statement of the 2010 State Budget draft act (It was not mentioned in the statement for 2009). The initial costs of R&D in 2009 were given there. The total sum is substantial – 132 million euro, of that 79 million euro due to foreign support (Kaupade jaemüük. Eesti Statistikaamet.

innovation. Counting, for example, the total costs for the Estonian Foreign Policy Institute as “innovation” is apparently un-challenged.

Due to the lack of data it is practically impossible to determine how far innovation expenditure decreased when the state budget of 2009 was 11.7% smaller than that of 2008, and the stated budget of 2010 a further 0.1% smaller than the budget of 2009 has been impeded. The current system of the budget has not assured the sustainability of the innovation process.

2. CONCLUSIONS

The following can be concluded from the above:

In 1993–1999, the influence of the tax system on the development of Estonian society, especially on its economic environment, was weak.

The Estonian tax system was changed in 2000. Since 1 January 2000 corporate profit has not been taxable in Estonia. Only the outgoing cash dividends, benefits and other payments are taxable. The purpose of this kind of taxation experiment was to encourage companies to reinvest more in their assets and to attract foreign investments. The author was unable to find clear correlations between the lifting of corporate income tax and investments on the one hand, and the GDP growth rate and trade balance deficiency on the other.

Such a modest influence on the entrepreneurship environment is explained by a number of factors. Comparison of the Estonian taxation system with those of several other Eastern European countries demonstrates that in those other countries corporate profits have not been taxed higher than in Estonia. Obviously, Estonia has not reached the desired position in its competition with other transition states. Therefore, taxes, at least corporate income tax (or its lifting), have not been among the main factors determining the entrepreneurship environment. The systems of several states, where the reinvested profit, not all the profit, was left free of income taxation, have proved to be more innovative than Estonia's.

The structure of the revenues of the Estonian state budget differs considerably from that of other EU Member States. The percentage of environment taxes is negligible, while the peculiarly structured social benefits tax, which constitutes the greatest and increasing source of revenue, is difficult to classify as either a direct, indirect or labour tax. Due to the huge proportion of consumption taxes the buoyancy of the Estonian tax system is weak.

The shortfall of income to the state budget in 2008 and especially in 2009 has forced the government to make cutbacks of up to 10% and has acutely raised the issue of increasing the tax burden. As the tax burden in Estonia is substantially lower than the EU average, this is possible. However, that raises the question of the optimal tax burden. Based on Slutsky's principle of a

compensated demand curve and Ramsey's optimal tax theory, we can take the optimal level of indirect taxes (which are dominant in Estonia) to be the point where the household welfare reduction curve and the social welfare increase curve intersect.

The way the Estonian Government has chosen to balance the budget – a continuous cut in expenses – forms a vicious circle as the cuts, particularly to wages, decrease incomes in the next period. According to the most modest calculations, which have not taken into consideration the decrease in demand due to macroeconomic influences, the state budget of Estonia lost 7 billion due to these cuts.

The economic depression, which began in 2008, has demonstrated the weak orientation of the Estonian economy and questioned the value of its taxation system for innovation. The amount of investments in innovation has decreased more than the decreases in GDP and the state budget.

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TOWARDS A MANAGERIAL ATTITUDE CHANGE IN FOREST MANAGEMENT COMPANIES: INNOVATIVE AND TECHNOLOGICAL APPROACH

JEL classification: O31, O32

Abstract

The purpose of this paper is to present and analyse current level of management, innovation and technological practices of FBiH's forest management companies (FMC) and suggest new innovative technologies and management concepts. Qualitative methods are used to present and analyse data. Research was performed in two stages: first step was literature, government reports and FMCs sustainability reports review. The second step was an analysis of data from reviewing surveys, reports and data driven from direct communication with the company's management. Five leading FMCs in wood industry of BiH are selected. The paper is the first attempt to examine the development of management, innovation and technological practices in order to fully develop their potential in the future.

Keywords: forest management companies, management design attitude, resource tracking system

1. INTRODUCTION

Forests cover almost one third of the world's surface. Federation of Bosnia and Herzegovina (FBiH) has a vast quantity of forest: in Europe in average there is 0,34ha of forest per capita while in FBiH this ratio is 0,48ha per capita (Federalno ministarstvo poljoprivrede, vodoprivrede i šumarstva, 2011).

Forests are (and have been) managed almost exclusively for timber production, and only 6 percent of all BiH forests are not classified as production forests (EU PHARE, 2000). Other important functions of forests such as watershed management, biodiversity conservation, non-timber forest products, and environmental protection do not figure significantly in forest management strategies (Federalno ministarstvo poljoprivrede, vodoprivrede i šumarstva, 2011). Production of wood and wooden furniture has a large potential in economic development (IMF, 2004). However, in order to realize this potential, FBiH firms should incorporate modern management design methods.

The purpose of this paper is to provide an overlook of Forest Management Companies (FMC) in FBiH, their business strategies and willingness to implement the innovative design thinking and modern tracking information models in their management system. An exploratory comparative case study analysis of five leading FMCs is performed to demonstrate the above aim: Una-Sana Canton FMC, Sarajevo Canton FMC, Zenica-Doboj Canton FMC, Middle Bosnia Canton FMC and Canton 10 FMC. This research intends to provide answers to the following questions:

RQ1: Do management of FMCs in FBiH recognize and apply innovative management methods?

RQ2: What is the nature of innovative management methods and to what extent do they affect the sustainable forest management?

After the introduction section, the literature review is presented with the focus to the main characteristics of FMCs by introduction of management design attitudes, information tracking system and their relationship in the context of sustainable business management. The third section introduces our research design and methodology. The fourth section reports on the findings and results of five case studies. The final section provides a discussion of limitations, lessons learnt, and suggestions for future research and conclusions.

2. LITERATURE REVIEW

Sustainable forest management means the environmentally appropriate, socially beneficial, and economically viable management of forests for present and future generations – a definition adopted by the Food and Agriculture Organization (FAO) of the United Nations.

Efficiency is necessary but not sufficient for sustainable business success says Michael Porter; a unique strategic positioning is indispensable for sustainable success (Porter, 1999). Moreover, a competitive advantage can be reached by improving coordination among functions within the company (Porter, 1986; Borja de Mozota, 2003).

Herbert Simon, Nobel laureate in economics, wrote *The Sciences of the Artificial*, which is one of the finest examples we have of a well-developed theory of the design attitude for managers. Simon called for a new curriculum for management education based on design. He is claiming that management is a profession whose training should follow that of engineering or architecture as an applied science and not that of the natural sciences. The manager's professional responsibility is not to discover the laws of the universe, but to act responsibly in the world to transform existing situations into more preferred ones. Simon held that, like the engineer or the architect, the manager is a form-giver who shapes organizations and economic processes. As he states: "Engineering, medicine, business, architecture, and painting are concerned not with the necessary but with the contingent—not how things are but how they might be—in short, with design." (Simon, 1996)

Management-thinking is rather linear and strives for efficiency; design-thinking is rather holistic, chaotic and emotional and strives for uniqueness and quality. Striving for efficiency is not sufficient to create sustainable success; Furthermore, innovation and design are needed to create a unique profile. The integration of design and business strategy should be an emerging process, because successful new ideas and solutions are the result of network and holistic thinking (Boland, 2004).

The importance of holistic design approaches was brought to a point by David Arbuckle: "I believe that managing design, design strategy, and innovation as a totality in the overall business is as important, if not more important, than the individual creative process." (Gornick, 2002).

In fact, any organization on a mission to create economic and human value – be it a federal government or well established commercial enterprise – can harness the power of design thinking to drive true innovations (Fraser, 2006).

The design attitude adds another way of thinking in management. Rather than deciding between alternatives, it is about shaping and creating new alternatives. 'The design attitude appreciates that the cost of not conceiving of a better course of action than those that are already being considered is often much higher than making the "wrong" choice among them.' (Boland, 2004). Design thinking can contribute new methods and ways to sustainable managing in a complex business world of fierce and global competition in which competitive advantages are hard to establish and cost leadership is not easy to be sustained. Table 1 presents differences between decision and design attitude characteristics.

Table 1

Decision versus Design attitude

	Decision attitude	Design attitude
Method	Deciding between alternatives	Creating and shaping new alternatives
Orientation	Short-term	Long-term
Risk disposition	Risk- and uncertainty avoidance	Higher risk and uncertainty
Assumptions made upon	Analytical thinking of past-term data	Intuitive; feelings; originality
Mode of thinking	Reliability	Validity
Reasoning	Deduction and induction	Abduction

Source: Boland, 2004, p.

According to FIRMA Saw log Market Report, last national inventory data were collected between 1964 and 1968. Forest and forest land cover more than 50 percent of the land area in BiH. Forests are mainly publicly owned with no Country level department that enforces regulations regarding forest matters. Production in the forest area is heavily reliant on human labour and no high equipment operating investments were made in the forestry sector after the 1992-1995 war. Opportunities that wood-processing industry in Bosnia and Herzegovina should look for are exporting the timber and wood products globally in order to eliminate the mismatch between internal demand for wood products and supply for the future productions in sawmills and wood factories. In order to accomplish that first step, the entirety of the supply chain in Bosnia and Herzegovina needs to be controlled. This is a process that will take time, investments, reorganizing business processes and knowledge transfer among companies and countries.

Some of the EU promotion programmes are concerned with organizational learning processes (UNECE/FAO, 2011). Regional Innovation Systems (RIS) framework is an EU attempt to intensify public-private knowledge transfer and increase innovation among public and private organizations (Gerstlberger, 2004). This is supposed to drive new impulses for socioeconomic regional development (Braczyk et al., 1998). Major components of RIS (Fritsch, 1999) have been defined as: concrete public components, concrete private components, concrete public and private components and individual policies.

As Porter's model suggested that design attitude creates competitive advantage through knowledge and innovation management. In order to apply design thinking in organizations in terms of internal (departments) and external (client resources, country regulations) coordination and knowledge sharing it is essential for BiH forest companies to adopt information systems that will support RIS areas.

3. METHODOLOGY

Forest management companies (FMCs) from FBiH participated in the study. Among the total number of 11 FMCs, five of them (45,5%) agreed to participate in the study and to give relevant information on their size, management practices, innovation practices and level of technology adoption in the firm. Companies were named A, B, C, D and E. Research was based on the presumption that competitive forces in any given industry and innovation are interrelated (Porter, 1986).

Managers responsible for innovative practices and technology adoption in the company were included in the survey (e.g. Chief Executive Officer, Board of Managers member, Chief Information Officer and Chief Technology Officer), as well as employees working with innovation and technology systems were included in the survey. In-depth interviews were conducted with employees from each FMCs in order to assess levels of innovative practices and the level of technology adoption in the firm. In some firms inconsistencies were found among two interviewees (e.g. CIO and CEO), and additional explanations were sought in such cases. Finally, interviews were analysed together with the goal to find areas where additional information is needed in order to assess the validity of the study.

Since literature is scarce in research with the topic of innovation and technology adoption in FMCs, our paper implements descriptive case studies in order to get information sufficient for answering research questions. Analysis is structured in three areas: (1) Management practices of FBiH FMCs, (2) Innovation practices of FBiH FMCs, and (3) Technology practices of FBiH FMCs.

Table 2 presents the main characteristics of FBiH companies participating in the survey. General manager of the company or one of the members of Board of Management participated in the survey. In order to keep the anonymous identity of FMCs, we present only basic information on the companies: number of employees, average age of employees and FSC certification that is conducted by Forest Stewardship Council, US based non for profit organization. Number of employees range from 400 to above 1000, and average age of employees ranges from 41 to 46 years.

Table 2

Main characteristics of FBiH forest companies

Characteristic	FBiH Forrest Management Company				
	A	B	C	D	E
Number of employees	>1000	>600	>800	>400	>500
Average age of employees	41	46	45	42	46
FSC certification	✓	✓	✓	✓	✓

Source: Author survey

4. RESULTS

Result section consists of three parts: (1) Management practices of FBiH FMCs, (2) Innovation practices of FBiH FMCs, and (3) Technology practices of FBiH FMCs. For each company, relevant information is presented.

4.1. Management practices of FBiH FMCs

Table 3 presents planning process of FBiH FMCs and it investigates three levels of planning: long-term strategic plan, marketing plan and research and development innovation plan. The two companies do not implement any form of planning. Company B implements long-term strategic plan and research and development innovation plan. Two companies implement only one plan. Company D implements the only marketing plan, and firm E implements only long-term strategic plan. The results of the survey indicate very low levels of planning in FBiH FMCs indicating that companies probably rely on their monopolistic position since are publicly owned.

Table 3

Planning practice of FBiH FMCs

Characteristic	FBiH Forrest Management Company				
	A	B	C	D	E
Long-term strategic plan	∅	✓	∅	∅	✓
Marketing plan	∅	∅	∅	✓	∅
Research and development innovation plan	∅	✓	∅	∅	∅

Source: Author survey

Table 4 presents customer relationship practices of FBiH FMCs, and it investigates to what extent interviewees agree (from 1-Completely disagree to 5-Completely agree) with the statement that their company is customer oriented. In addition, interviewees reported on tools used in their companies for measuring level of customer satisfaction. Interviewees from two companies (A and B) completely agree that their companies are customer oriented, and they use numbers and frequency of complaints, employee survey and customer satisfaction survey as a tool for measuring level of customer satisfaction. Three companies (C, D and E) do not measure levels of customer satisfaction, and interviewees from the two companies are undecided (company D) or agree (company E) with the statement that their company is customer oriented. We can resume that FBiH FMCs are only partially customer oriented, and this result confirms the previous finding that companies probably rely on their monopolistic position since are publicly owned.

Table 4

Customer relationship practices in FBiH FMCs

Characteristic	FBiH Forrest Management Company				
	A	B	C	D	E
Our company is customer oriented	Completely agree (5)	Completely agree (5)	Completely disagree (1)	Undecided (3)	Agree (4)
Tool for measuring level of customer satisfactions					
Number and frequency of complaints	✓	✓	∅	∅	✓
Customer satisfaction survey	∅	✓	∅	∅	✓
Employee survey	✓	✓	∅	∅	∅
We do not measure level of customer satisfaction	∅	∅	✓	✓	∅

4.2. Innovation practices of FBiH FMCs

Table 5 presents management attitudes toward innovations in FBiH FMCs. Interviewees were asked to present their opinion towards innovation in their companies. Likert scale from 1 to 5 (1-Completely disagree, 5-Completely agree) was used to measure to what extent interviewees agree on following statements: (1) Innovations are important for our company; (2) Innovation is a technological process; (3) Innovation can be a managerial concept as well; (4) Innovation is an economic competency, and (5) Innovation in the company has an impact on all value chain stakeholders.

Manager from company A scored the highest (average 4.80) according to the level of agreement with the above statements, indicating that he or she has a broad and open perspective on innovations. Managers from companies C and E are following, with average grades of 3,80 and 3,60, respectively. Managers from companies B and D scored really low with average grades of 2,00 and 2.80, respectively. Attitude of managers from both companies B and D is that they completely disagree with the statement that innovations are important for their company. Manager from company B also completely disagree with the statement that innovation in a company has an impact on all value chain stakeholders.

Table 5

Management attitudes toward innovations in FBiH FMCs
(1-Completely disagree, 5-Completely agree)

Characteristic	FBiH Forrest Management Company				
	A	B	C	D	E
Innovations are important for our company	Agree (4)	Completely disagree (1)	Completely agree (5)	Completely disagree (1)	Agree (4)
Innovation is a technological process	Completely agree (5)	Undecided (3)	Completely disagree (1)	Undecided (3)	Undecided (3)
Innovation can be a managerial concept as well	Completely agree (5)	Undecided (3)	Agree (4)	Undecided (3)	Undecided (3)
Innovation is an economic competency	Completely agree (5)	Disagree (2)	Agree (4)	Undecided (3)	Undecided (3)
Innovation in company has impact on all value chain stakeholders	Completely agree (5)	Completely disagree (1)	Completely agree (5)	Agree (4)	Completely agree (5)
Average	4,80	2,00	3,80	2,80	3,60
St.Dev.	0,45	1,00	1,64	1,10	0,89

Source: Author survey

Table 6 presents the innovation's impact to company turnover in FBiH FMCs. Three companies reported a moderate increase in turnover compared to 2010 and 2011. One company reported a very large increase of more than 90% for both years. However, it is surprising that only two managers reported that increase in turnover is influenced by the innovations.

Table 6

Innovations' impact to company turnover in FBiH FMCs

Characteristic		FBiH Forrest Management Company				
		A	B	C	D	E
Change in company turnover	Compared to 2010.	8,37%	16%	0%	98%	No information
	Compared to 2011.	5,07%	3%	10%	92%	No information
Did innovations influence changes in company turnover?		✓	∅	∅	∅	✓

Source: Author survey

4.3. Technology practices of FBiH FMCs

Table 7 presents ICT practices of FBiH FMCs. Managers were asked to report on the usage of ICT applications: (1) Company Web site, (2) IT system for tracking internal / external resources, and (3) IT system for tracking illegal forest harvesting. Managers were also asked to report whether a manual system for tracking resources is still used in their companies, as well as the time needed for reporting on illegal forest harvesting. All of the companies have the company web site, and all of them use IT systems for tracking internal / external resources. Companies A and B use horizontal software application designed specifically for the forest industry. However, companies D and E use database applications, while company D uses only basic MS Office applications like MS Excel. That company is also using a system for tracking resources manually, as well as company A. Only two companies use IT system for tracking illegal forest harvesting. Companies indicated time needed for reporting in case of illegal forest harvesting. There is evidence that this time is related to existence of IT system for the same purpose. The shortest time to report illegal forest harvesting (less than 30 minutes) is declared by companies B and D. At the same time, both companies use IT system for tracking illegal forest harvesting.

Table 7

ICT practice of FBiH FMCs

Characteristic	FBiH Forrest Management Company				
	A	B	C	D	E
Company Web site	✓	✓	✓	✓	✓
IT system for tracking internal / external resources	✓ (Horizontal software applic.)	✓ (Horizontal software applic.)	✓ (Data base applic.)	✓ (MS Office applic.)	✓ (Data base applic.)
Tracking resources manually	✓	∅	∅	✓	∅
IT system for tracking illegal forest harvesting	∅	✓	∅	✓	∅
Time needed for reporting in case of illegal forest harvesting	More than 2 hours	0-30 minutes	1-2 hours	0-30 minutes	More than 2 hours

Source: Author survey

5. CONCLUSIONS

The entire (horizontal and vertical) wood sector value chain structure is much dependent on effective governance of FMCs. In our research we investigated main forces that drive the adoption of management design attitude and present forces of decision management attitude. Based on research driven secondary data analysis as well as on our own practical experience, the paper shows a need for FMCs to establish a sustainable management system that would give more emphasis towards both innovation and technology adoption. Our research revealed that managers of FMCs in FBiH recognize and apply innovative management methods only to the moderate extent (*RQ1*). In addition, nature of innovative management methods is only basic if any. Therefore, they could affect the sustainable forest management to the lowest level (*RQ2*).

In order to reach satisfying standards, and overcome existing problems, a systematic approach is needed. The use of business tracking models in forestry, resource tracking information system and adoption of management design attitude in contrast to decision attitude reveals to be crucial for the future success of the FMC.

The limitations of our research stem from the fact that five FMCs participated in our survey, although there are a total of 11 FMCs in FBiH. Also, we used a rather simple questionnaire in order to get trust from FMCs participating in the survey, since this survey is preliminary in terms of both sample characteristics and the depth of the study. Therefore, future research is planned in order to incorporate more FMCs in the sample, and to broaden the research instrument. That research would stem toward proposal and development of adoption model of management design attitude using technology and innovative management specifically tailored for FMCs in transition countries.

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THE IMPACT OF SOCIAL RESPONSIBILITY ON COMPANY PERFORMANCE IN THE HOSPITALITY INDUSTRY

JEL classification: M14, L83

Abstract

The hotel management affects the general standard of employees, the level of utility load, the system of ecological burden and businesses in their environment (suppliers, guests, unions, banks, sports and cultural institutions). As hotel companies are capital and labor intensive, the traditional management approach to reducing operating costs is mainly realized through the reduction of salaries. Such an approach of maximizing the financial effects of stockholders provokes discontent of workers (unions), local government and business partners, and consequently reduces the overall quality of hotel services. However, when as a result of such business endeavors occur management decisions that are in the "gray" zone of ethical and moral responsibility, the measures often taken by workers, trade unions and / or related institutions are aimed at promoting and improving the ethical climate and the social responsibility of the hotel companies. The paper follows the idea that competitive advantages on the market result from the positive differentiation from the competition, and that one of the ways involves a socially responsible approach to business. The authors of the paper

believe that these immoral actions can be solved through supportive measures and models of "whistle-blowers" that expose the illegal and / or unethical business actions and decisions. In this sense, the paper intends to explore and demonstrate the mentioned measures as a possible solution for reducing adverse effects and thus improving company performance in the hospitality industry. The research model will be based on hotel companies operating in tourist destinations across the Mediterranean, using benchmarking approach to hotel companies in other and comparable tourist destinations. Research results will be transparent and applicable in practice. In order to reach the goal of the paper, quantitative and qualitative methods will be used in primary and secondary data processing.

Keywords: *social responsibility, company performance, whistle-blowing*

1. INTRODUCTION

The quality of tourist services in the tourism market is a result of the quality of work of all the participants in the creation of services, programs, and events. However, the process of market globalization has opened a number of negatives that affect the satisfaction of tourist workers world-wide. Caused by rapid changes in the system of quality of tourist offer, the workers' discontent significantly affects the overall balance of socially responsible business of hotel companies. In this sense the authors try to investigate the importance and the measures of increasing the social responsibility of hotel companies.

Social responsibility is an important area of development of managerial knowledge, skills and competencies for enhancing the quality level of hotel services. For this reason, the aim of the research is focused on proving the social and economic impact of social responsibility on the successful operation of hotels. The research will consider the effect of seasonal tourism cycle to the satisfaction of workers in the tourism and hotel companies, with all of its features.

The primary research question in this paper is: "Does the social responsibility influence the quality of work of hotel staff?". The set goal of research will also try to clarify the question of social responsibility impact on the protection of the interests of the business environment. The paper opens enough space for further research in the area of social responsibility in the hotel companies – which are very labor intensive and where the quality of service depends largely on the workers' level of satisfaction.

The set goal of the paper prompted the authors to possible methods of work, and thus deductive and inductive methods will be applied. Also, the collected data analysis included descriptive statistics, using the statistical package SPSS for windows 20.0.

Based on the set objective, authors have defined the structure of the work. The first chapter investigates the possible changes in the environment and defines social responsibility, with an emphasis on hotel companies. The second chapter analyzes general features of the structure of employees in the hospitality industry, using a benchmarking approach with comparable hotel companies in tourist destinations in the Mediterranean. Finally, in the last chapter, authors prove the thesis of social responsibility in the hotel companies and explore the level of workers' rights and the method of "whistle-blowers".

2. CHANGES IN THE BUSINESS ENVIRONMENT AND SOCIAL RESPONSIBILITY IN HOTEL COMPANIES

The beginnings of socially responsible behavior of business organizations can be found in the 18th century, when corporations built buildings and schools for their employees and their children (Cannon, 1994, p.7). However, since the mid-1990s, the political and public debate on the social responsibility of corporations and the globalization process influenced the development of socially

responsible behavior and social expectations for increasing the level of transparency of corporate social responsibility, which includes social, economic and environmental dimensions. Rapid changes in a globalized society, changes in the needs and expectations of tourists demand constant adjustment. Human resource management and a complex system of satisfied employees is the key to success and quality of the hotel offer.

Hotel company and its management operate in a complex system of business environment, which is composed of several factors: a complex ownership structure of public-private interests, the tourism demand, the supply of goods and services necessary for the creation of hotel services, and a system of other stakeholders that have different private or public needs and interests. All these factors work together with the aim of creating a distinct hotel service on the system "value for many", which generates the meeting of needs of all previously mentioned stakeholders. Therefore, the question is how to create a sustainable and balanced social responsibility that will satisfy all interested parties in the creation of high-quality hotel service.

2.1. Social responsibility of hotel companies and the changing environment

Social prosperity is no longer perceived in the context of economic welfare, but also includes the context of social and environmental objectives and concepts of morality and personal values. Companies must constantly fill in the gaps in existing knowledge, resources and systems that support the management in their social awareness and accountability, because management must constantly promote the development of their own abilities. Hotel companies are under pressure of constant changes of tourism demand on the one hand and the constant changes in market supply and labor market on the other. The constant changes of the business environment indicate the need to study specificities of stakeholders as well as special features and relationships between hotel companies and the surrounding society.

In the broadest sense, corporate social responsibility (CRS) is the responsibility of the organization towards the society in which it operates. In the context of this paper, corporate social responsibility is seen as a continuing commitment to ethical business practices and contribution to economic development while improving the quality of life of employees, their families and local communities, and society as a whole (Holme and Watts, 2000, p.8). It can also be seen as the way in which companies consider the impact of business on society, reaffirming its principles and values based on internal methods and processes, in their interaction with other participants. CSR is a voluntary, organizationally oriented initiative, which refers to activities that are considered to go beyond the minimum statutory regulations (Boardman and Barbato, 2008, p.14).

In response to these phenomena, the management of hotel companies is increasingly seeking solutions from expert consultants in dealing with issues of politics and general operations related to their social role, tasks and relationships, especially if the consultants are able to prove their competency in crisis and conflict prevention. These consultants are expected to convince the hotel guests (tourists) and business partners that both social awareness and responsibility is becoming an increasingly important component of basic business principles. They also have a key role in determining the most appropriate manner in which the companies should behave towards owners and other shareholders. The relationship between hotel management and the environment is very complex: local governments, cities and municipalities, tourist boards, concessionaires, government institutions, and the owners - shareholders create a public - private ownership structure where most of management decisions are made at the expense of workers.

2.2. Specificities of social responsibility in hotel companies

Social responsibility is essentially the relationship between management and the environment that is measured by written or unwritten moral rules for evaluating behavior of management and the organization. Social responsibility implies a commitment of management to make the right choices and take actions that will contribute to the welfare and interests of the society and companies.

Social responsibility of management is the obligation to make decisions and take actions that will strengthen the interests and increase the profits of the organization and the society as well; which means that the manager is responsible to company's internal and external environment (owners and workers as well as guests, suppliers, government bodies, municipalities, cities, tourist boards). Therefore, management should consider the wider implications for the society or specific social groups, and possibly be actively involved in solving social problems. They must be able to connect its policies and actions with the environment in a way that brings benefit to the organization and the society.

There are four general areas of activity and the social responsibility in hotel companies:

1. preventing and solving environmental and ecological problems, generated by hotel technology
2. improving education and health issues of communities, individuals and the environment
3. contribution to solving the general human and social problems
4. improving government administration by enabling its managers and professionals engagement in government positions.

In theory, there are different concepts of social and corporate responsibility. The traditional concept of social responsibility emphasizes that maximizing profit and long-term interests of shareholders (owners) is the primary responsibility of management and that management actions should be limited to the economic needs of the organization. The concept of social responsibility to

the influential social groups holds that managers have obligations to groups affected by or affecting the achievement of organizational goals (shareholders, tourists - hotel guests, employees, creditors, etc.). The concept of positive (affirmative) social responsibility says that managers and business organizations are responsible to act proactively to meet social needs and improve the social environment in which they operate.

Corporate social responsibility is a term that implies serious consideration of the impact that companies have on society (business environment). One of the appropriate methods of evaluation of management activities is a comparison with the ten commandments of corporate social responsibility, visible in the Table 1.

Table 1

Ten Commandments of Corporate Social Responsibility

TEN COMMANDMENTS OF CORPORATE SOCIAL RESPONSIBILITY

1. Thou shall take corrective action before it is required
2. Thou shall work with affected constituents to resolve mutual problems
3. Thou shall work to establish industry wide standards and self-regulation
4. Thou shall publicly admit your mistakes
5. Thou shall get involved in appropriate social programs
6. Thou shall help correct environment problems
7. Thou shall monitor the changing social environment
8. Thou shall establish and enforce a corporate code of conduct
9. Thou shall take needed public stands on social issues
10. Thou shall strive to make profits on an ongoing basis.

Source: Kreitner, R., Cassidy, C. (2013). Management. Connecticut: Cengage. p.128.

Listed commandments represent a collection of concentrated thoughts every manager should follow in order to experience minimal criticism by the society.

One of the main difficulties in measuring social responsibility is the answer to managers' fundamental question: "To whom am I responsible?". This question leads managers into constant conflict between striving for the maximum profit and meeting socio-economic objectives of the environment (minimum environmental pollution, paying taxes, paying tourism taxes, donations, gifts, sponsorship of sports associations, cultural societies, etc.). The manager is

constantly split between satisfying the interests of owners and the interests of the business environment, and in particular to workers.

In terms of social responsibility, responsible organization is the one that is successful in meeting the interests of the internal environment (the owners - stockholders) as well as the interests of the external environment (the entire society; the Ministry of Finance, municipalities, cities, tourist boards - stakeholders).

According to Carroll (1979, p.497), social expectations can be seen through four types of corporate social responsibilities: economic, legal, ethical, and discretionary. This means that apart from maximizing profit and respecting the law, organizations are expected to act in accordance with the unwritten social rules and voluntarily give support to various social programs.

- Economic responsibility is the first level of corporate social responsibility. All activities are focused on providing a return on investment to owners and shareholders; creating jobs and fair pay for workers; and creating new products and services. From this perspective, business is the basic economic unit in society.
- Legal responsibility is the next level of social responsibility because all companies must be based on rules, laws and regulations that businesses must follow. The company must meet its economic goals within the law created by the competent authorities.
- Ethical responsibility includes behaviors that are not necessarily codified into law, and may not serve the direct economic interests of companies. It portrays business as being moral, and doing what is right, just, and fair.
- Discretionary responsibility means that the organizations have the widest scope of discretionary judgment and choice, in terms of deciding on specific activities or philanthropic contributions that are aimed at giving back to society (Jamali and Mirshak, 2007, p.247)

Levels of social responsibility and a complex system of business environment raise the question of defining the basic principles of social responsibility, which govern the hotel companies. Basic principles of social responsibility by most authors are: a) accountability, b) transparency, b) ethical behavior, d) respecting the interests of stakeholders, e) compliance with laws, f) respecting international norms of behavior, g) respecting human rights (Vujić, 2012, p.98).

The idea that management's competencies are a strong prerequisite for increasing social responsibility, leads to the question of the role and the importance of acquiring the necessary knowledge, skills and competencies of managers and all employees as well. Hotel company's employees should

continuously improve their knowledge, in all fields related to the work and activities of the business environment.

3. GENERAL CHARACTERISTICS OF THE STRUCTURE OF EMPLOYMENT IN TOURISM AND HOSPITALITY INDUSTRY

The following chapter is focused on researching the structure of employees in tourism and hospitality industry in the tourist destinations of the Mediterranean countries, focusing on seasonal workers and their general characteristics. The authors wish to explore the structure of seasonal and permanent workers in comparable countries in the Mediterranean.

Studies on the general characteristics of workers are focused on the characteristics of Croatian workers in the hospitality and tourism companies. Due to seasonal businesses of many Croatian hospitality and tourism companies (especially in accommodation facilities on the coast and islands), the volume of total employment is constantly changing throughout the year. From the data shown in the following figure, it is evident that in the system of benchmarking between Croatian and several Mediterranean countries, the structure of permanent and seasonal workers is somewhat different.

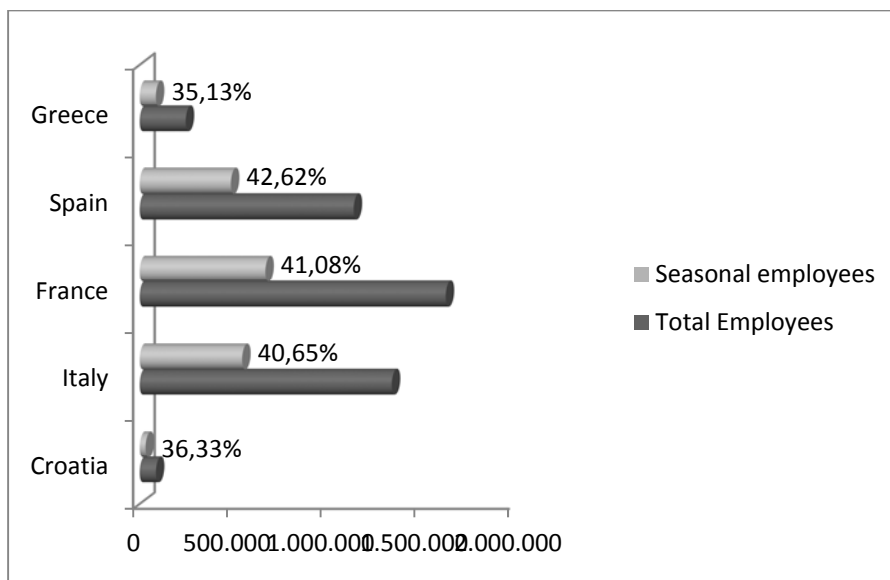


Figure 1 Structure of seasonal workers in tourist destinations in the Mediterranean in the year 2012

Source: www.dzs.hr, http://ec.europa.eu/taxation_customs/index_en.htm (20.05.2013.)

Compared to Croatia, companies of Italy, France and Spain have a higher number of seasonal workers, while the number of seasonal workers is smaller in Greece.

Table 2 shows an interesting structure of the total number of workers in large hotel companies compared to the number of employees in small and family own businesses in 2012 in tourist destinations of the Mediterranean.

It is evident that more developed Mediterranean countries (Italy, France and Spain) have a higher share of employment in large hotel companies and hotel resorts, which can lead to the conclusion that in most cases these are joint-stock companies. In small (family own) businesses, more workers are employed in Croatia and Greece, which proves that the shareholding is more developed in countries with a higher share of large hotel companies. Consequently, it can be assumed that advocates of the development of joint-stock form of entrepreneurship believe that a responsible company is the one that supports the creation of greater value for shareholders (owners).

Table 2

The structure of the total number of workers in large hotel companies in relation to the number of employees in small and family own businesses in 2012, in tourist destinations of the Mediterranean

	(%)				
	Croatia	Italy	France	Spain	Greece
Large enterprises	62,8	71,3	70,5	69,7	65,1
Small enterprises	37,2	28,7	29,5	30,3	34,9
Total	100,00	100,00	100,00	100,00	100,00

Source: www.dzs.hr, http://ec.europa.eu/taxation_customs/index_en.htm (20.05.2013.)

Due to the seasonal nature of business, employment in Croatian hospitality industry is significantly reduced after the main summer season. Thus, in December 2012th 65.900 workers were employed in Croatian tourism and hospitality companies, which is about 36% less than in August. This means that these workers were employed seasonally, or only during the summer months. Of the total number of seasonal workers in the total Croatian hospitality industry in 2012th, about 14.400 workers, or 73% were employed in companies and about 7.000, or 27% by tradesmen and craftsmen.

When observing seasonal fluctuations in employment in relation to the form of ownership in the 2012th, tradesmen and craftsmen at the end of the year employed about 80% of the number of workers employed in August, which means that seasonal workers accounted for about 20%. The ratio of seasonal

worker employed in companies makes up almost 30% of the total number of workers.

From the overall findings it can be concluded that the number of seasonal workers is higher in more developed Mediterranean countries. This begs the question of the influence of seasonal workers on the quality of the hotel service as well as the system of social responsibility in the hotel companies. In the following chapter, authors explore the possible conflict between the objectives of shareholders in the globalized world and the demand for greater social responsibility in hotel companies.

4. SOCIAL RESPONSIBILITY IN HOTEL COMPANIES AND WORKERS' RIGHTS

Uniqueness of social responsibility in tourist and hotel businesses is determined by a complex system of the tourism market and the complexity of high capital and high labor intensity of creation and placement of tourist services, where workers play the key role.

4.1. Managing organizational ethics and social responsibility

Reviewing the basic principles of social responsibility (www.undp.org) and comparing them with the interests and goals of the business environment, namely shareholders - the owners, suppliers, tourist market - customers, government and non-governmental institutions, it is evident that all participants can easily realize their interests, in the following way:

- owners - through dividends and contracts implemented by their managers,
- state institutions – through fiscal system (taxes), laws and coercion,
- suppliers - through a system of treaties and court decisions,
- other participants such as local and international communities, tourism organizations, utility systems - achieved either through legal norms or coercion.

Workers in the tourism and hotel companies represent that part of the business environment, which seemingly has the least benefit from corporate social responsibility. Although unions have a key role in protecting the interests of workers, the globalized world is increasingly protecting the interests of the owners of capital. In essence, management activities aimed at promoting social responsibility often ignore workers, who are the most important factor in creating quality service in tourism.

Possible dissatisfaction of workers in tourism and hospitality businesses is shown in the following table, which compares the number of workers who were registered in various forms of strikes, protests and similar statements of discontent.

Table 3

The number of organized and registered protests by the workers in the tourism sector in the Mediterranean countries in the period from 2006 to 2012 (per worker per 100,000 employees)

Country/Year	2006.	2007.	2008.	2009.	2010.	2011.	2012.
Croatia					0,028	0,029	0,031
Italy	0,812	0,842	0,089	0,091	0,125	0,145	0,151
France	0,058	0,061	0,062	0,063	0,079	0,091	0,092
Spain		0,183	0,268	0,393	0,413	0,461	0,474
Greece		0,155	0,157	0,282	0,315	0,429	0,393

* No available data

Source: www.dzs.hr, www.nationmaster.com/graph/lab_str-labor-strices (22.05.2013)

The number of discontent workers in the Mediterranean countries in the tourism sector has grown rapidly in the last three years - in times of crisis. It is noted that Greece and Spain have the largest number of dissatisfied workers in the tourism and hospitality companies.

The management of hotel companies should encourage employees to actively participate in the increase of ethical climate and social responsibility using the following measures (Cerović, 2010, p.143.)

1. Leadership by example,
 2. Codes of ethics,
 3. Ethical structures,
 4. Ethic training and hot line,
 5. Whistle-blowing.
1. LEADERSHIP BY EXAMPLE is the best way in which managers can influence the ethical behavior of its associates and workers. Top managers make commitment to ethical values and help others to embody and reflect those values – through actions, speeches, directives and organizational publications.
 2. CODES OF ETHICS is a formal statement of the organization's values regarding ethics and social issues. Codes of ethics tend to exist in two types: principle-based statements and policy-based statements (Daft, 2010, p.185)
 - Principle-based statements incorporate organizational culture. They define core values and contain general guidance to corporate responsibility, quality of hotel services and the treatment of employees. Principle-based statements are often referred to as corporate credos.
 - Policy-based statements outline procedures to be used in specific ethical situations, including marketing practice, conflicts of interest, observance of law, proprietary interest etc.
- Ethical codes must meet two requirements to encourage ethical behavior. First, they must relate to specific problems (bribery, falsification of documents,

etc.) and define behavior through specific ethical guidance. Secondly, ethical codes must have the strong support of top management and must be carried out through a system of rewards and punishments.

3. ETHICAL STRUCTURES represent the various systems, positions and program a company can undertake to implement ethical behavior (Daft, 2008, p.141).
 - Ethics committee is a group of executives appointed to oversee company ethics. In many small enterprises this is impossible, because workers are completely unprotected, especially seasonal workers.
 - Ethics ombudsman is an official given the responsibility to investigate ethics complaints and points out failures to top management.
4. ETHIC TRAINING AND HOTLINE programs also help employees deal with ethical questions and translate the values stated in a code of ethics into everyday behavior. An ethics hotline is a method of communication that allows employees who witnesses unethical activities to report them in a confidential manner. Hotlines' confidentiality is particularly appropriate for employees who may still be uncomfortable reporting ethical improprieties.
5. WHISTLE-BLOWING BLOWERS - employees' disclosure of illegal, immoral, or illegitimate practices on the employer's part. Only a small number of managers in the hotel companies support the participation of whistle-blowers and have programs for their encouragement. Whistle-blowers first report to the owners, then to management, ethics committees or other ethical structures in the company. Finally, they turn to external institutions, such as financial police and journalists regarding dishonest or illegal activities occurring in the company.

Management of the hotel and tourism companies should take specific measures to promote social responsibility in order to increase employee satisfaction as well as the quality of tourism services.

4.2. Whistle-blowing as a method of promoting social responsibility

Although companies must view whistle-blowing as a benefit to the company, this method is often reluctantly accepted by managers and co-workers.

Managers should must use their knowledge, competencies and skills to encouraged various models and techniques of whistle-blowing, thereby helping to resolve disputes and enhance the interests of privileged groups (the owners - the stockholder and the state system) and other parts of the business environment, with the aim of increasing the quality of hotel services.

Management can also create an open climate in which whistle-blowing becomes unnecessary, by:

- encouraging free and open expression of dissenting viewpoints,

- giving employees a voice through confidential complaint procedures and/or anonymous ethics hot lines,
- finding out what employees think about the policy of corporate social responsibility and make the necessary changes,
- letting employees know that management respects their integrity,
- knowing that the unfavorable treatment of whistle-blowing is likely to lead to adverse public opinion.

The above measures will help management in reducing tensions and eliminating dispute between conflicting parties in a hotel company. The whole series of strikes, protests and different forms of external whistle-blowing is always a sign of workers' discontent, which in the end reduces the overall quality of tourism services. Disgruntled employees in tourism and hospitality industry can easily diminish the experience of different tour programs, events or destinations. Although whistle-blowing is a successful method of increasing social responsibility, management in tourism companies should encourage the development of social responsibility with less protests and discontent.

5. CONCLUSION

In times of rapid changes, management of hotel companies creates a new approach to social responsibility, with the aim of achieving the objectives of the owners, often at the expense of other stakeholders - mostly workers. Social stakeholders in a tourist destination are essentially local inhabitants and most of the companies responsible for creating tourist destination offer.

The idea that management's competencies are a strong prerequisite for increasing social responsibility, leads to the question of the role and the importance of acquiring the necessary knowledge, skills and competencies of managers and all employees as well. Hotel company's employees should continuously improve their knowledge, in all fields related to the work and activities of the business environment.

The number of seasonal workers is higher in the more developed Mediterranean countries and is a possible source of discontent and limited social responsibility. Seasonal employees affect the quality of work as well as the system of social responsibility in the hotel companies.

Management of tourism and hotel companies must undertake specific measures to promote social responsibility with the aim of increasing employee satisfaction and therefore, increasing the quality of the overall tourism services.

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**MOTIVATION AND MANAGEMENT'S
EFFECTIVENESS – HOW TO INCREASE
EFFECTIVENESS THROUGH DEVELOPING
MANAGERS' AND EMPLOYEES' MOTIVATION IN
BOSNIA AND HERZEGOVINA**

JEL classification: M10, M54

Abstract

Today's turbulent environment demands from the companies to constantly seek for possibilities how to improve their position and competitiveness. Organizational effectiveness is under influence of many different factors and one of them is management. In this research motivation is treated as a process that pervades and directs activities toward satisfying individual and corporate goals. The inevitable question that emerges is: Is there a correlation between motivation and management's effectiveness?

This research tried to isolate different material and non-material forms of motivation that can influence and increase management's effectiveness. In this paper management's effectiveness is measured through stakeholder approach and this is a big difference from all other researches that measured it based on company's financial results only.

The research is conducted on 72 companies from Bosnia and Herzegovina. Questionnaire is created with the purpose of determining the association, direction and intensity of the correlation between motivation and management's effectiveness. Data processing includes descriptive analysis for determining basic indicators and methods of multivariate statistics for determining the degree and the intensity of

correlation between employees' and managers' motivation and management's effectiveness.

Keywords: *motivation, effectiveness, management*

1. INTRODUCTION

Modern companies are under a constant pressure on how to improve their performance, decrease their costs and increase their revenue in order to remain competitive and meet increasing change in their environment. Company's efficiency may be based on different grounds, but one of the primary prerequisites for managing change and reaching organizational effectiveness is having good and motivated work force (both managers and employees). How to motivate managers and employees is very often asked question and the answer to this question is becoming more and more important today due to the great uncertainty the companies are facing. Mechanisms for motivating and rewarding people (Roberts, 2004, 3) should create motivated work force and competent and motivated work force is one of the strongest comparative advantages a company may have; since this is production factor that competition cannot imitate or copy easily and this is the main reason because of which researches on motivation are becoming very popular in recent time.

The purpose of this research is to isolate material and non-material forms of motivation influencing employees and managers and to determine is there a correlation between material and non-material forms of motivation and management's effectiveness. Management's effectiveness is an important (but not the only) factor for achieving organizational effectiveness and since management and managers are those who are motivating people by providing different material and non-material motivation forms main question is: Which forms of motivation are most effective in increasing management and organizational effectiveness? Other questions that might be set are: What employees' motivators are used by effective managers? and What are the managers' motivators that lead to increased management effectiveness?

2. THEORETICAL BACKGROUND

Motivating employees and having motivated work force have become most important goals for managers to achieve today. Importance of motivation is well known in business theory for a long period of time and managers must at all times motivate their employees by creating challenging tasks, keeping their interest in work high and offering them attractive rewards for good performance.

2.1. Management and motivating process

Motivation is a process that initiates and directs efforts and activities toward satisfying individual and corporate goals (Sikavica et al, 2008, 532). All forms of motivation don't have the same influence on creating motivated work force, some of them influence work motivation stronger and some weaker and it is very difficult to predict precisely how a particular incentive or reward will affect individual behavior (Armstrong, 1994, 91). The relationship between needs, behavior, motivation, performance and satisfaction is still not determined clearly. Different theories have been developed with the purpose of defining relationships between these variables. Vroom's (1964) expectancy theory is based on a opinion that a person is motivated to the degree that he or she believes that the effort will result with acceptable performance, performance will be rewarded, and the value of the rewards is highly positive. Integrating motivation theories include: rewards, needs, cognitions, satisfaction, and performance as integral parts in creating the holistic model of motivation (Schermerhorn et al, 2002).

Role of management in the process of motivating employees cannot be ignored since one of the basic managers' objectives is to increase employees' motivation and lead them towards meeting organizational goals. If one takes into consideration the fact that motivation cannot be observed solely as a series of actions that managers undertake in order to delegate tasks, one realizes that managers must be creative in shaping a plethora of stimuli which can generate personal and internal commitment, as well as increase employee enthusiasm in reaching company's goals (Rahimic et al, 2010, 535-543). For achieving this managers must be motivated and their internal or external motivators should be determined as well, if the motivational theory is to be examined in terms of management effectiveness and performance.

Although motivation and work motivation are one of the major topics in organizational behavior there is still no agreement about the definition of motivation or the factors influencing it. Motivation is perceived as a process which is necessary to achieve set goals or as an explanation for specific individual behavior. Individuals in different situations have different motives for their behavior and when motivation theory is connected to work performance, the main goal of motivating employees is to make them reach and meet organizational goals through putting extra effort in. Usually employees are willing to put in this extra effort when their individual and organizational goals are aligned. Different authors emphasize different factors as most important for defining motivation. By one definition motivation has to do with the direction of behavior, the strength of the response once an employee chooses to follow a course of action, and the persistence of this behavior (Gibson et al., 1997, 125). Others consider motivation to be a process of initiating and leading efforts and activities towards achieving personal and organizational objectives (Sikavica et al, 2008, 532). In all cases motivation is connected to individual behavior, different motives creating it and aligning it with meeting organizational goals.

2.2. Motivators and management's effectiveness

When it comes to work and employee's motivation the most important question is what is motivating people to meet organizational goals and increase their performance. Although it is difficult to determine the impact of a specific motivator on individual behavior, researches conducted in the field of work motivation up to now showed that there are two main groups of motivators: intrinsic and extrinsic motivators (Gagne et al, 2010, 628-646). Extrinsic motivators are rewards external to the job, such as pay, promotion or fringe benefits, while intrinsic motivators are those that are a part of the job itself, like responsibility, challenge, feedback etc. (Gibson et al, 1997, 182). Development of managers' and employees' motivation is conducted through different forms of material and non-material rewards. Material compensations and incentives are directed toward securing and improving financial status of employees and financial compensation for work (Omazic et al, 2011, 10-14). They are usually divided on direct material compensations like salary, bonuses and incentives, rewards for spreading knowledge and flexibility, share in profit, bonuses connected to company's success and profit and indirect material compensations like scholarships and specializations, trainings, paid absences and free days, company car and phone, managers benefits, insurances, education, holidays etc. (Sikavica et al, 2008, 711). Non-material forms of motivation are based on giving rewards such as participation in making decisions, higher responsibility together with higher freedom, more interesting job, and opportunity for personal growth and non-monotonous activities (Robbins, 1995, 248). Management has a crucial role in motivating and rewarding employees with the purpose of achieving higher performance and creating extraordinary results for the organization. Directly connecting long run goals of the organization with rewarding employees for their performance creates strategic approach towards motivational process (Lasić, 2012, 95-112).

Effectiveness is measuring success in meeting goals (Weichrich, Koontz, 1994, 11) and manager's goals are created based on the definition of manager's job. Manager's effectiveness is very often confused with efficiency, but it shouldn't be, since effectiveness is defined as doing right things and efficiency means doing things right (Reddin, 1970, 6). There are three different approaches when it comes to measuring effectiveness: the goal approach to effectiveness, system theory approach to effectiveness and multiple-constituency approach (Gibson et al, 1997, 18) and based on the chosen approach differences exist in management's effectiveness definition. This difference becomes visible when authors define what should be included when manager's effectiveness is measured. Some authors believe that a comprehensive view is needed so both input (managers' skills, knowledge and capabilities) and output (meeting set goals) should be included in measuring management effectiveness, while others consider effectiveness as the extent to which a manager achieves output requirement of his position and for this reason managerial effectiveness must be

defined in terms of output rather than input, by what manager achieves rather than what he does (Reddin, 1970, 3). Since effective organization can be defined as the one that makes the best use of its resources to attain high level of performance, thus successfully achieving its purpose and objectives, while also meeting its responsibility to its stakeholders (Armstrong, 1994, 11), effective management can be defined as the one that is leading the organization toward this state. Stakeholder approach in measuring management effectiveness is becoming very important today, since management is not responsible only to owners of the company, but to all other stakeholders as well (employees, customers, creditors, community, suppliers and government) and measurement of its performance and effectiveness must be based on meeting goals of all stakeholders successfully.

Despite the fact that work motivation is one of the major topics in organizational behavior, not many work motivation surveys exist. Main reason for conducting this research was lack of researches that measure influence of motivation on management's effectiveness. For that reason this research was made through investigating material and non-material forms of motivation that can improve management's effectiveness.

3. SAMPLE, METHODOLOGY AND EMPIRICAL RESEARCH RESULTS

The aim of this research was to investigate managerial and employees motivation, its sources, role of material and non-material motivators and management's effectiveness with the goal of identifying strategies and techniques used to motivate managers and employees in companies that have highly effective management.

3.1. Sample and research instrument

For this purpose a pilot study was conducted on the sample of 150 randomly chosen medium sized and large scaled companies in Bosnia and Herzegovina. The research was conducted during the first quarter of the year 2013. Questionnaire was specially designed to enable identification of main motivation forms and to measure level of management effectiveness from a stakeholder perspective. The questionnaire was consisted from 14 closed type questions. It was addressed to Management Board of the company and sent by e-mail to 150 addresses from which 72 questionnaires were returned and that makes highly acceptable response rate of 48,0%. SPSS 19.0 for Windows was used for statistical data analysis.

3.2. Research results

By employment size companies in the sample are 70,6% medium sized companies (that have 50 and more employees), 11,8% large scaled companies (with 250 and more employees but less than 500) and 17,6% very large scaled companies (with more than 500 employees).

By legal form 79,2% of the companies are limited liability companies, while 19,4% are joint stock companies and only one company selected other types of legal forms (1,4% percent of the sample). This is consistent with the distribution of the legal forms in the population of medium and large companies in BiH.

Material and non-material forms of motivating managers and employees are identified with two separate sets of questions and were treated as separate and different strategies in order to isolate the distinction made in motivating managers opposite to motivating employees. The results for most used material forms of managers' motivation (as seen from Table 1) showed that wage is used in 91,4% of cases, bonuses like business card, official car or premium for success are used in 60,0% of cases, while participation in profit and stocks are not used so often to motivate managers in BiH companies (11,4% and 2,9% respectively). When it comes to non-material forms of managers motivation, the most commonly used one is paid specialization and paid additional education which is used in 73,1% of cases, flexible working hours are used in 34,3% cases and praises and recognitions are used in 55,2%.

Table 1. Material and non-material forms used for managers motivation

Material forms for managers motivation ^a	Responses		Percent of Cases
	N	Percent	
Wage	64	55.2%	91.4%
Bonuses (business card, official car, premium for success)	42	36.2%	60.0%
Participation in profit	8	6.9%	11.4%
Stocks	2	1.7%	2.9%
Total	116	100.0%	165.7%
Non-material forms for managers motivation ^a	Responses		Percent of Cases
	N	Percent	
Flexible working hours	23	21.1%	34.3%
Paid specialization and additional education	49	45.0%	73.1%
Praises and recognitions	37	33.9%	55.2%
Total	109	100.0%	162.7%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Material forms used for employees' motivation (Table 2) are wage in 87.1% of cases, bonuses in a form of paid overtime and premium for work success in 62,9% of cases and stocks in only 1.4% of cases. Mostly common non-material form used for employees' motivation is praises and recognitions that are used in 67,2% of cases and paid specialization and additional education is used in 65,7% of cases. Flexible working hours are used in only 16,4% of cases to motivate employees'.

Table 2. Material and non-material forms used for employees' motivation

Material forms for employees' motivation ^a	Responses		Percent of Cases
	N	Percent	
Wage	61	57.5%	87.1%
Bonuses (paid overtime, premium for work success)	44	41.5%	62.9%
Stocks	1	0.9%	1.4%
Total	106	100.0%	151.4%
Non-material forms for employees motivation ^a	Responses		Percent of Cases
	N	Percent	
Flexible working hours	11	11.0%	16.4%
Paid specialization and additional education	44	44.0%	65.7%
Praises and recognitions	45	45.0%	67.2%
Total	100	100.0%	149.3%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Management effectiveness level was evaluated by using five categories of questions which assessed financial results in last three years, process efficiency, customer satisfaction, innovation level and level of corporate social responsibility of company's management. Based on the results all companies were grouped by the level of their management's effectiveness into three groups: very effective management, average effective management and non-effective management. Average management effectiveness grade was between minimum value of 2,75 and maximum 5,00 with mean of 3,86 (as seen from Table 3).

Table 3. Management effectiveness grade

	N	Minimum	Maximum	Mean	Std. Deviation
Management effectiveness av. Grade	72	2.75	5.00	3.8561	.49084
Valid N (listwise)	72				

When conducting crosstab between management effectiveness and different material and non-material forms of motivation used for managers it is possible to identify different forms that are mainly used in cases when management is very effective and those that are used in other cases when it is average or not so effective.

Table 4. Usage of material and non-material managers' motivation forms based on management effectiveness ranking

Material forms of motivation for managers ^a		Management effectiveness ranking			Total
		Not effective	Average effec.	Very effective	
Wage	Count	16	29	19	64
	%	100.0%	87.9%	90.5%	
Bonuses (business card, official car, premium for success)	Count	6	23	13	42
	%	37.5%	69.7%	61.9%	

Participation in profit	Count	0	5	3	8
	%	0.0%	15.2%	14.3%	
Stocks	Count	1	1	0	2
	%	6.2%	3.0%	0.0%	
Total	Count	16	33	21	70
Non-material forms of motivation for managers^a		Not effective	Average effec.	Very effective	
Flexible working hours	Count	5	13	5	23
	%	33.3%	41.9%	23.8%	
Paid specialization and additional education	Count	11	21	17	49
	%	73.3%	67.7%	81.0%	
Praises and recognitions	Count	5	16	16	37
	%	33.3%	51.6%	76.2%	
Total	Count	15	31	21	67

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

As it can be seen from the Table 4, wage as the most common material form of motivation is used almost equally in all companies and it doesn't show difference between not effective and very effective management. Bonuses are used in 61,9% of cases in companies that have very effective management, 69,7% in those with average effective management and only in 37,5% cases with not effective management. Participation in profit is motivation form that is used only by very (14,3%) and average effective management (15,2%) and it differentiates companies by rankings of management effectiveness the best. From this can be concluded that participation in profit motivates managers most toward meeting organizational goals and achieving higher effectiveness level, although it has been used only by 8 companies from the sample.

When non-material forms of managers' motivation are considered then it can be seen that praises and recognition are differentiating the most levels of management effectiveness and that those companies that have very effective management are using this motivation form in 76,2% of cases and those with not effective management in only 33,3% of cases.

Table 5. Usage of material and non-material employees' motivation forms based on management effectiveness ranking

Material motivation of employees ^a	Management effectiveness ranking			Total	
	Not effective management	Average effective management	Very effective management		
Wage	Count	15	30	16	61
	%	93.8%	90.9%	76.2%	
Bonuses (paid overtime, premium for work success)	Count	7	22	15	44
	%	43.8%	66.7%	71.4%	
Stocks	Count	0	1	0	1
	%	0.0%	3.0%	0.0%	

Total	Count	16	33	21	70
Non-material motivation of employees ^a		Management effectiveness ranking			Total
		Not effective management	Average effective management	Very effective management	
Flexible working hours	Count	1	6	4	11
	%	7.1%	18.8%	19.0%	
Paid specialization and additional education	Count	8	20	16	44
	%	57.1%	62.5%	76.2%	
Praises and recognitions	Count	8	20	17	45
	%	57.1%	62.5%	81.0%	
Total	Count	14	32	21	67

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Wage is the mostly used material form of employees' motivation as well, it used in almost all companies in the sample (see Table 5). Bonuses like paid overtime, premium for work success etc. are used much more (71,4%) in companies with very effective management than in those with not effective (43,8%). Stocks are rarely used as a motivation form.

Among non-material forms that are used to motivate employees paid specialization and additional education and praises and recognitions are equally used. Flexible working hours are not so often, but there is a big difference in usage of this form by companies with very effective management (19,0% of cases) and those with not effective management (only 7,1% of cases).

Regardless on the source of managers' motivation its level can be measured by the level of enthusiasm and optimism expressed while meeting organizational goals, as seen from Table 6. The question: Is the management in your company showing enthusiasm and optimism when meeting organizational goals? is asked and by the answers to this question level of managers' motivation can be determined. Answers on this question were measured on a 1 (never) to 5 (very often) Likert scale.

Table 6. Management enthusiasm and optimism when meeting organizational goals

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	1	1.4	1.4
	Sometimes	10	13.9	14.1
	Often	42	58.3	59.2
	Very often	18	25.0	25.4
	Total	71	98.6	100.0
Missing	System	1	1.4	
Total		72	100.0	

Average grade on this question was 4,07 which means that management in most of analyzed companies (83,3%) is showing enthusiasm and optimism when solving and meeting organizational goals often and very often.

Table 7. Commitment and extra efforts in meeting strategy and goals by employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Rarely	3	4.2	4.2	4.2
Sometimes	10	13.9	13.9	18.1
Valid Often	39	54.2	54.2	72.2
Very often	20	27.8	27.8	100.0
Total	72	100.0	100.0	

Employees motivation level is measured (see Table 7) by the level of commitment and will to put extra effort in meeting given strategy and goals. Likert scale from 1 – employees are not at all willing to put in extra effort and show commitment when meeting organizational goals to 5 – employees are very often willing to put in extra effort and commitment was used, and average grade on this question was 4,05 showing that employees in selected companies are highly motivated.

3.3. Interdependence of motivation and management effectiveness

In order to examine and determine intensity and direction of the interdependence of managers' motivation, employees' motivation and management effectiveness in BiH companies Spearman's rho correlation coefficient was used.

Table 8. Correlation coefficients between managers' and employees' motivation and management effectiveness

Spearman's rho		Employees commitment and extra efforts	Management enthusiasm and optimism	Management effectiveness ranking
Employees commitment and extra Efforts	Correlation Coefficient	1.000	.436**	.520**
	Sig. (2-tailed)	.	.000	.000
	N	72	71	72
Management enthusiasm and optimism	Correlation Coefficient	.436**	1.000	.395**
	Sig. (2-tailed)	.000	.	.001

Management effectiveness ranking	N	71	71	71
	Correlation Coefficient	.520**	.395**	1.000
	Sig. (2-tailed)	.000	.001	.
	N	72	71	72

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

Statistically significant correlation (as seen from Table 8) is determined, and it indicates that there is:

- Statistically significant positive correlation between managers' motivation, enthusiasm and optimism and management effectiveness with correlation coefficient of 0,395.
- Statistically significant positive correlation between employees' motivation and commitment and management effectiveness with correlation coefficient of 0,520 (that is considered to be moderate strength relationship).
- Statistically significant positive correlation between managers' motivation level and employees' motivation level is 0,436 and it means that companies which have more motivated managers as well have more motivated employees.

Correlation is as well calculated with Pearson coefficient of correlation (interval data were used for management effectiveness instead of ranking to get more accurate results) and it showed that positive correlation between managers' motivation, enthusiasm and optimism and management effectiveness is 0,445, while positive correlation between employees' motivation and commitment and management effectiveness is 0,614.

From these results it can be concluded that companies in BiH that are achieving higher level of management effectiveness are usually having more motivated managers and employees and that the companies with more motivated managers are usually having more motivated employees as well.

4. CONCLUSIONS

The aim of this paper was to identify different material and non-material forms used for motivating managers and employees and to test the hypothesis about the correlation between managers' and employees' motivation (measured separately) and management effectiveness level.

The results showed that most commonly used material motivation form is wage, both in cases of managers and employees and most commonly used non-

material motivation form is paid specialization and additional education in case of managers and praises and recognitions in case of employees.

Summing up the results of research into the interdependence of motivation and management's effectiveness in Bosnia and Herzegovina companies, there is a significant positive correlation between managers' motivation, enthusiasm and optimism and management's effectiveness, a significant positive correlation between employees' motivation and commitment and management effectiveness and significant positive correlation between manager' motivation level and employees' motivation level.

From these results it can be concluded that the companies in BiH that are achieving higher level of management's effectiveness are usually having more motivated managers and employees and that the companies with more motivated managers are usually having more motivated employees as well. Development of managers' and employees' motivation forms has a special importance in transitional economies, like the one in BiH, since this approach leads to increased effectiveness in meeting organizational goals and further social and economic development.

This research can be treated as a step in the testing of interdependence of motivation and management's effectiveness. Of course, this study has limitations itself. It raises many new research questions and opens new challenges in an unexplored terrain. Future studies in the field should include industry analysis on a larger sample of companies. Also, different countries and different motivation forms can shape different contexts for exploring the link between motivation and management's effectiveness.

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IMPLEMENTATION OF PROPERTY MANAGEMENT SYSTEM IN HOTEL INDUSTRY

JEL classification: L83

Abstract

Information and Communication Technologies (ICT) influences the development tourism on globally, and its development has changed the practice of business. Any reference ICT in the hotel industry necessarily begins the concept of Property Management System (PMS). PMS as an essential component for hotel management provides tools as are necessary hotel staff in performing daily operations of the reservation, the accommodation capacities management, accounting, etc. This software supports all basic activities involved with process operation accommodation facilities and interconnects systems within it. Hospitality enterprises that are constantly working on innovations in the implementation of hardware, software, and networks can be competitive in the market, which maintain the long term prosperity of the business. This paper is conceptually defined PMS and its application in the context of the impact on the hotel management. The methodology is based on secondary research examining the key dimensions of the PMS systems and their functionality. The aim of this paper is to explore the intensity of the impact on the prosperity implementation of PMS hotel management. The findings show that, despite the availability of a range of PMS software and functionalities, the European touristic market continues to be led by a handful of providers. The unique contribution of this paper is in secondary research, the issues associated with the critical, core technology for the hotel industry, i.e. PMS.

Keywords: ICT, property management system, hotel industry

1. INTRODUCTION

The requirements of a successful global business which the computer era has brought in every pore of society, certainly must fill out and hotel industry. The classical chain-by-agency-accommodation-entertainment, everyone has their own task and methods for its fulfillment. Within the framework of hotel industry, information technology has gone beyond, especially for large and higher quality facilities, and enabled connection string subsystems in unique system, and also series of hotels into the organizational unit. To use the potential that information technology plays in the hotel industry of crucial importance are the availability and quality of human resources. The basis of successful hotel industry and improving competitive position of each entity in the tourism market includes development and implementation of ICT. Contemporary business model in the hotel industry is characterized by large quantity of information. Processing large quantity of information requires the design of such an information system, which will connect and facilitate the entire hotel business. Hotels, in striving to satisfy the increasingly demanding guests, while maintaining profitability, introduce information systems for managing hotel business. Integral component of a hotel's PMS systems, which play a significant role in leading the management of revenues. PMS covers the administration, planning and operational functions (accounting, marketing research, planning) revenue management, staff management and centralized control of the hotel chain. As an essential component for managing hotel business activities PMS provides tools which are necessary hotel staff in performing everyday activities such as reservations, Check-In/Check-Out, managing accommodation capacities servicing the needs of guests, accounting, etc.

2. THE SIGNIFICANCE OF ICT FOR THE HOTEL INDUSTRY

Information technology is defined as "a term that encompasses all forms of technology utilized to create, capture, manipulate, communicate, exchange, present, and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived)" (Ryssel, et. al., 2004: 198). Significant as the competitive advantage in the hotel industry's progress in ICT, because the hotels also provide new management capabilities. Since the nineties implementation of ICT in hotels is not considered exclusively in relation to productivity, but also with creating intangible benefits, such as customer service satisfaction (Law & Jogaratnam, 2005), and as an encouragement creation of relationship within hotel, between the hotel, and other tourism entities, and the parties themselves.

Hospitality industry is characterized as a certain specificity. Accordingly, information and communication systems in the hotel industry also have special significance. The hotel sector is characterized by an information intensive area. An abundance of information should be distributed properly,

which is achieved through speed, control and the planning approach. The key role of ICT is to prevent the loss of focus and to create a balance between the amount of information and operational functions at the hotel. Hotels in using ICT improve operations, better quality manage assets and thus increase profitability. ICT facilitate both hotel management, and distribution through electronic media. Hotels in contemporary global conditions must be intensively use the Internet because it allows individual users and agents access to accurate information about the availability and allows them to make easy, fast, reliable and efficient way to make a booking and confirmation without losing funding. (Cooper, C., et. al., 2008: 637)

When designing, building and developing ICT in the hotel industry, and all that business improvement, should be started with the assumption that the hotel business there are many number of evidence that are related to different activities and operational tasks. For their effective functioning are required daily updated information about the changes and conditions in the environment. Is characteristic that there are a large number of operations that are registered, but also repeated in various evidential documents almost the same way. On certain documents, the same data are entered even several times simultaneously. In addition, it is necessary to enable statistical examinations and statements related to the operations of the hotel. At the global level, ICT enables an increased degree in capacity use, continous monitoring of costs, increase operational efficiency and quality control of all business processes based on fast and accurate information; rationalization costs of information; current updates and information; reducing unproductive labor on the formation of data and information easier, more accurate and fastere communication with the environment in submission of statements and increase business efficiency. Various business departments within hotel have specific business requirements, which are executed individual information subsystems. They are particularly adapted to respective business departments and enable them more efficiently; faster; and easier operation. The meaning hotel function can be divided into: basic business function (accomodation, food, drink); purchase, sales, finance, human resources, investments, planning, and research and development.

ICT has contributed to innovation in the hotel industry, so that with the help of it performing the following activities:

- Direct contact to guests: reservations, Check-In/Check-Out, payment;
- Office activities: accounting, payroll, management human resources, marketing of entertainment and services for clients;
- Communication with partners;
- Market Research and Industrial Espionage;
- Flexible and dynamic pricing in revenue management;
- Business process management and staff.

Recent studies have pointed out that the hotel industry is at the top in terms of ICT adoption, compared to companies operating in other industries (eBusiness W@tch, 2006). Many studies identified a large number of ICT facilities in the hotel industry, because they have focused on the analysis of the implementation of solutions by hotels, as well as the advantages arising from the use of technology (e.g. Buick, 2003; Sigala, 2003; Jang et al. 2006; Daghfous & Barkhi, 2009; Ruiz et al. 2010). Ruiz et al. (2010) classified them into two major groups: 1) in-house ICT (hotel hardware and software, network connectivity technologies, and business integrated processes), and 2) ICT for external use (e.g. electronic marketing and sales solutions, ICT solutions related to customers, and electronic supply management).

Hotel managers still hardly appreciate the importance of ICT for business development strategies (Law & Jogaratnam, 2005). In fact, managers' doubts about efficiency of ICT investments still persist (Luck & Lancaster, 2003). The studies of Frey et al. (2003) and Murphy et al. (2003), carried out in 200 Swiss hotels, revealed that prospects had less than a one in 10 chance of receiving a quick, courteous, and personal reply. In addition, Ruiz et al. (2010) noted that, due to the complexity of CRM solutions, the level of understanding of their possibilities, their value, and the way they work is low (Magnini et al., 2003) and that successful hotels will be those that use the ICT effectively, with the aim of instantly satisfying clients' variable desires and needs (Olsen & Connolly, 2000).

A properly designed database will enable hotels keep track of guests' preferences and provide customized service (Ruiz et al., 2010). Piccoli (2008) found that hotel companies can use information in order to create substantial business value. According to him, this is possible owing to the following characteristics of information: it is costly to produce; it is cheap to reproduce and distribute; and it is not consumed by use. In the hotel industry, a hotel needs to invest considerably in different ICT applications in order to collect a single reservation on the Web. However, once the ICT infrastructure is implemented, incremental reservations can be captured on the Web site at a minimal cost. Moreover, as information can be customized inexpensively and simply, it can be reused multiple times and in many different forms. It should be noted that information management has a valuable role in planning, implementation, and control of both communication.

In terms of ICT infrastructure, Croatia is ranked 24th in Europe and 34th overall, which is well ahead of several EU members. In addition, Croatia's tourism-specific infrastructure is ranked 4th, while its ICT infrastructure is ranked 35th (Šerić, Gil Saura, 2012, pp. 13). The literature review has proved the considerable impact of ICT on hotel industry, predicting that successful hospitality enterprises will be those that implement new technologies effectively (Olsen, Connolly, 2000). According to the results of Baggio's (2004) study the Italian hotel segment is characterized by a generally low usage of technologies. In contrast, the study conducted by Šerić and Gil Saura (2012, 18) the upscale hotels in Italy and Croatia, from the manager perspective, the results revealed a relatively high degree of ICT implementation in upscale hotels located in both

countries, but the Croatian hotels showed a better performance of ICT implementation. However, there are a few studies that examine performance and data sharing/integration that focus on the hotel industry specifically, though Sunny et. al. (2005) establish the relationship between IT investments and performance improvements in the hotel industry at five levels; enhanced annual sales, reduced operating costs, increased occupancy rates, greater level of repeat business, and enhanced positive word of mouth. They identify a significant positive impact on performance in all but guest-related interface applications. Marchand (2005) confirms that 25% of the business value of IT lies within the deployment and investment whereas 75% of the business value is in fact in factors related to the usage of the information. However, there is little research carried out regarding the successful exploitation of the data shared at property level, in particular, exploiting the data in the PMS.

3. IMPLEMENTATION PMS'S IN HOTEL INDUSTRY

Contemporary hotels, in pursuit to fulfill increasingly demanding guests while sustain profitability, introduce information systems for managing hotel business. One of the two integral components of the hotel's PMS. However, this implementation of PMS has not taken place in all tourism sectors at the same time. The hotel industry was more resistant to its application and it was not until the 1990's that the majority of the hotels were computerised (Van Hoof et al., 1996). PMS represent the most widespread ICT application in the hotel industry. They support reservations, front and back office operations and managerial functions. PMS also operate as a hub for hotel ICT system connectivity, to which entertainment services, in-room refreshments, telecommunications, energy management systems and others can be interfaced for 1 and 2-way communications. Hotels have also been progressively introducing their products in major Global Distribution Systems, in order to increase their market prospects (Buhalis, 2003). Furthermore, hotels have increased the technology that they make available for their guests' self-service and entertainment. Hotels are progressively including access to the Internet and/or printing facilities, by establishing wireless or wired LANs for their guests' usage. In addition, the provision of digital television for entertainment purposes-including games and movies-has become generalised. Moreover, these applications are also being directed to reducing guests' contact with hotels' personnel, reducing costs and automating traditionally irritating processes in hotel lodging: queuing up to check-in and out. Guests' communication with the hotel is progressively becoming mainly supported by these digital devices.

Today, software applications are designed to assist in the development of virtually every business need, including individual packages to support specific business activities, as well as comprehensive systems, which enable businesses to store and manage all the information and share it across departments and even branches. These include general applications, such as word processors, as well as those supporting specific business function, such as financial analysis tools, accounting software, personal productivity applications, contact managers,

diaries, organisation level productivity management, reference software, tax preparation, legal software, online sources of information, workgroups software applications, information sharing between individuals in a network environment, Customer relationship Management (CRM) systems and programming tools and utilities such as antivirus applications (Madura, 1998). Furthermore, constant developments on hardware and software applications, have progressively enabled organisations to process larger amounts of data at higher speed, and to handle more complex algorithms (Beekman, 2003). These developments have enabled organisations to digitally centralise the individual business units that control the entire organisation. There are already many PMS providers available on the markets that provide various solutions with a large number of functionalities based on the changing needs of hotels. The Captterra website evaluates 201 such PMS software providers, and in addition to these PMS software, the JazdHotels website (Jazdhotels, 2010) has 27 more, totaling 228 PMS software evaluated through these two websites. There are many providers for all sizes of hotels, and available all around the world. Daghfous and Barkhi (2009) study is shown that Windows is the most widely used operating system in four and five star hotels in UAE and Fidelio is the overall preferred PMS system and has highest market share worldwide. The leasing of software is not new, albeit only recently a practice adopted by the hotel industry. Till recently, the hotel industry preferred to develop and "own" their PMS software.

According to the study "Hotel Industry in Croatia 2007" by Horwath Consulting Zagreb, that specializes hospitality and tourism, the use of certain technological systems in hotels in Croatia is quite varied. At least the technological systems are global distribution systems (14.4%), and commonly used their own websites (94.4%). Very high, above 80%, is used for Internet access (93.3%), systems for the retail food and beverage outlets - POS (91.1%), accounting system calls (87.8%) and local area network - LAN (83.3%). Mean values of use, from 30% to 70%, occupy USALI (70%), central reservation systems-CRM (67.8%), intranet systems (66.7%), monitoring systems business - MIS (65.6%), network on a broader level - WAN (58.9%), data Warehousing systems - Data Warehousing (43.3%) and energy management systems - EMS (30.0%). In addition to GDS, very low are systems management - PMS used only 28.9% of hotel revenue management systems - Yield Management with a share of only 20%. The reason is that these are complex applications that require the highest level of computerization of business and use them only "the greatest", but also they provide the greatest benefit in the management of the hotel and can be used by those who want to be "the best." These data is different by regions (Istria, Kvarner, North and Central Dalmatia, Southern Dalmatia, interior and Zagreb), among which stands out the Zagreb where most of these technological systems used 100% of hotels, which speaks in favor of the above mentioned factors, investment in information technology business.

The other study by Kokaz Pucciani and Murphy (2011) conducted by 95 European hotels belonging to 4 to 5 star category is shown that the market seems to be dominated by Micros for PMS systems with 54 hotels mention having a

version of Opera or Fidelio. Protel follows with 6 hotels, Medialog and Amadeus each was listed by 2 hotels and 12 hotels report that they do not have a PMS, while others use manual systems created by them for this purpose as they were “too small to invest in a PMS system”. According to their study it seems that hotels stay with their current PMS system until it is imperative to change. It appears that many hotels stay loyal to a PMS provider’s software for an extended time (5 to 20 years). The hotels are aware of mainly the following PMS system: Micros Opera (75%), Micros Suite 8 (57%), Protel PMS (27%), Rezware XP7 (11%), ONE Property Management System (7%), MyPMS (6%), and Barefoot Agent (3%). The functionalities used more (i.e. more hotels have them) are the ones that rated more. The Rooms Management department has access to all software held by the hotel, however, this is less so far Sales&Marketing and Accounting departments. F&B Management have the most access to the POS and PMS but rarely to the CRS. HRM is the department that has the least access to the software and therefore any data held by the hotel. The bigger the hotel, the more PMS functionalities they have and the higher RevPar they reported. Chain hotels appear to have PMS software with more functionality. More than 90% of hotels collect both customer-related and operational data on real time or daily basis for all functions of Rooms Management. Most of the data is collected in real time or on a daily basis with some functions like the Credit System/Accounts Receivable and Financial Control also collected weekly. The costs of a “good” PMS are high (Kokaz Pucciani, Murphy, 2011, pp. 111), these systems are too technical and only IT people can use/understand them.

4. PMS’s SPECIFIC CHALLENGES FOR THE HOTEL INDUSTRY

The PMS is one of the key ICT systems supporting the operations of hotels businesses. Although Front-Office features such as reservation, registration, housekeeping, billing and report generation are common to all the PMS solutions in the market, the concept of PMS and its boundaries are not consistent across suppliers, solutions and properties. These systems are normally provided in modules, and therefore additional features, suiting the specific requirements of the establishment, can be adopted. These additional features can support sector-specific activities such as revenue management at a basic level; general business activities such as business intelligence applications, accounting, human resource, etc; and/or the management of additional facilities which are offered by the establishment, including bar, restaurant, conference center, spa and golf courses. These features can be supported by obtaining additional modules which are then integrated to the PMS, facilitating, in this way, the flow of information throughout departments. On the other side, there is a wide variety of ancillary ICT systems, including both additional systems for running the property (such as Electronic Door Locking and Energy Management Systems), as well as Guest Service Systems, such as In-Room Entertainment, In-Room Telephone, Electronic Minibar, etc. These systems are non-modular solutions, however, they can be operated standalone or interfaced with the PMS through a network-

enabling devices such for seamless connectivity between the devices and the PMS, enabling charges to be tracked and posted directly to the guest's billing account, the service to be shut down when the room is not allocated and/or to enable further automated features. This type of communication between additional systems and PMS enables the improvement of controls, employee productivity and internal communication, translating in turn into a reduction of the operational costs. PMS can also be interfaced to the electronic distribution systems for the automatic update on the room inventory available for sale. To support the PMS there has to be processes and procedures that integrate data into a more holistic picture for supporting competitive decisions, at strategic, tactical and operational level. Unfortunately, "no common integration methods allows the installed systems to work together to effectively create, store, retrieve, and present information that may exist across them" (HTNG, 2010, pp.7). There is however, recent movement towards harmonization in data standards and integration. Hotel Technology Next Generation (HTNG) was conceived 10 years ago to facilitate the provision of industry standards in data interfaces and provide certification to suppliers who comply with HTNG standards. In the wider context of travel, the Open Travel Alliance has worked for over decade to produce a platform that software and hardware suppliers can adhere to in order to facilitate data integration. However, not all stakeholders participate in these voluntary initiatives, nor comply with the standards and guidelines that emanate from the workshops and agreements (HTNG, 2010). Tiedemann et al. (2008) confirmed in their sample of 50 Spanish hotels that reluctance to invest in full integration of IT systems and the lack of inter-sharing is no good, and also state that 3-4 star hotels are less likely to share information than the upscale hotels.

The room inventory in individual hotels can be sitting at the property level, and accessible through the basic reservation module offered by any of the PMS solutions, enabling the visualisation of room inventory and the input, storage and retrieval of reservations. Since reservations can normally still be taken at the property level in many hotels, inventories need to be synchronised for maximising bookings without over-booking. Therefore, most software suppliers offer solutions specially designed to host the inventory in one of the sites and to provide seamless communication between the Central Reservation Systems (CRS) hosted at the central reservation offices and the reservations system hosted at the property level. In terms of distribution, opportunities can be maximised by enabling direct booking and their automatic confirmation, through the seamless connectivity of hotel inventory to major GDS (such as SABRE and Galileo), to major Alternative Distribution Systems –ADS (such as Expedia, Travelocity, HotelFactory, BookDirect and iHotelier), CRS powered by external partners (such as Best Western and Reserve America) or through the hotel's own website. A direct interfaces can be set up to provide this connectivity. However, developing direct interfaces for each individual channels can become expensive.

In order to maximise the revenue generated through their sales, revenue management systems can be implemented. This functionality can be included by default or as a modular feature in many PMS, enabling establishments to set up

special configurations such as rates for selected dates which will be automatically displayed at the reservation stage. The basic features relate to the facilitation of data analysis for marketing purpose, supporting decision making, which can be translated into revenue generation. These systems can be interconnected to PMS and to other systems, such as those supporting restaurant management, in which case, the guest history information can be shared across systems. When connected to the PMS, labour productivity and internal communication are enhanced and controls and customer service can improve.

In terms of the Business Administration Systems applications, these can be integrated into the PMS or they can be run as standalone systems. Some of PMS providers offer specific modules to be integrated into their PMS solutions or they offer connectivity to other software solutions. The benefits of systems' integration in back and Front-Office applications are mainly related to the increased labour productivity and internal information accuracy by sharing the same database among departments. This category includes Procurement, Accounting and Human Resources solutions.

The basic facilities offered by a hotel relate to the accommodation services, therefore, the ICT systems in place will be mainly focused on covering the operations involved in providing these type of services, however, many hotels generate a substantial part of their revenue from additional facilities which also require specific ICT systems for their effective operation. These ICT systems can be set up as standalone systems or they can be integrated seamlessly with the PMS, supporting information share between restaurant, bar areas, spa, golf courses, time share facilities, conference and events and the front and back office areas of the hotel. One of these additional facilities can relate to a variety of leisure activities. Those establishment which offer leisure activities, such as spa or golf can implement a Leisure Management System/Activity Scheduler for supporting the scheduling and billing operations, which can be designed to be fully integrated with the PMS, enabling guests to book and close their bills also from the front desk. These systems enable guests to set up their appointments, and when integrated with the Maestro PMS, to develop promotional packages including some of these activities.

Restaurant Management Systems refer to the software applications which are specially designed for supporting the management of restaurant and/or catering facilities. In accommodation establishments, they can operate individually or they can be interconnected to the PMS systems for information flow across departments. They can include special features such as labour management, kitchen display systems, they can enable the input, storage and retrieval of customer preferences and also can include an alarm system which can be set up for different incidents.

When Conference and/or Banqueting Management Systems are connected to the PMS, they enable the sales agent to seamlessly book bedrooms matched to conference dates and stored guest preferences.

The Time Share Management module is offered by PMS providers to assist in the management of this type of unit. It supports the visualisation of the

space for easy identification and management. Additionally, it provides reports, possibility to lock owner's account, tracking billable services such as housekeeping, and the storage of inventory. Enhanced features include the provision of a web interface enabling owners to access their profile information and to include reservations for their own use. Similar features are offered by the Vacation Ownership System developed by Micros-Fidelio (Micros-Fidelio, 2008).

Whether these systems have the basic or more advanced features, from the accommodation facility perspective, their contribution to business performance is mainly related to control improvement. If these systems are interconnected to the PMS, then they support internal communication, customer service and labour productivity.

Energy Management Systems refer to those solutions which enable hotels to reduce unneeded energy consumption, normally related to lighting and/or heating. They refer both to Software and Switches, and include a wide range of devices and operate in various areas of the hotel, however, they are mainly focused on the energy management of guest room. This can be operated from a PC terminal, which in turn can be interfaced with the PMS, and provide additional features. This might include a thermostat which enables the property to setback the room temperature when this is unoccupied, and handles the temperature control to the guest when the room is used. Further energy control is provided through their centralised version, which connects the system to the PMS and enables further functionalities such as automatically illuminating the room when the guest checks-in in order to generate a welcoming atmosphere.

Electronic Minibars can be an important source of revenue to many hotels. In busy hotels, where customers want to check-out promptly, housekeepers cannot always check the items consumed from the Electronic Minibar. In this case, Electronic Minibar can be interfaced to the PMS systems, identifying the removal of items and automatically posting charges to the guest account. Since guests tend to move items and then place them back again without consuming them, these devices normally allow some time for guests to place it back again before reporting the item as consumed.

In-Room Internet Access can be provided directly to the guest computer or through the television system. Furthermore, depending on the business model of the establishment and whether this service is intended to support revenue generation or only customer satisfaction, it can be for free or charged per time of usage. The Internet connection can be dial-up through the telephone line, in which case, it will be charged through the call accounting system. On the other hand, Internet providers offer high speed Internet with unlimited Internet connection per room/for the entire hotel which can be payable at once/per day/per month. Establishment have then the choice to account for the Internet usage, charging their guests or offering this service for free. An interface to the PMS will easily enable posting charges to the guest account.

Guest Service Systems are mainly available to improve customer service, however, when these are provided upon additional payment, they can

become a main source of revenue for accommodation providers. The communication between these systems and the PMS enables the improvement of control, internal communication and labour productivity, by facilitating the accessibility to billing information throughout one system only.

Therefore, there are an entire range of industry-specific and general business applications, which can operate standalone or be integrated in a networked system environment for supporting the hotel business operations, contributing to business performance, by improving labour productivity, supporting decision making, reducing operational costs, improving internal communication, communication with partners, communication with suppliers, increasing revenue, and customer satisfaction and improving controls.

5. CONCLUSION

Hotels to link and to facilitate overall hotel business, which is characterized by a large quantity of information, have to implement information and communication systems for managing the hotel business. ICT implementation hotels improve business activities, higher quality assets management and human resources, rationalizing costs and thereby maintained profitability. The integration of information and business systems within the hotel is realized direct cost savings in the necessary resources, in the time required for performing individual business operations, providing a higher quality of hotel services and increased flexibility, which results in an additional competitive advantage and higher earnings. ICT implementation working process is faster and simpler, resulting to improved performance. In addition to efficient management, trained and professional work force the hotels are doing successful business forced to implement ICT.

One of the major components of ICT is a Property Management Systems. PMS make the highest contribution to hotel business performance. PMS, which by nature presents an integrative functionality of key activities within the hotel establishment, was rated as one of the highest contributors to business performance. This suggests that overall the integrative requirements of the hotel industry are fulfilled by PMS.

It is clear that not all functionalities of the PMS are used by the properties. It seems original, core functionality i.e. that of room allocation and accounting/guest billing continues to be dominant. A property level is a large under-utilisation of the range of the PMS functionalities. This may be explained by the lack of training or could be explained by lack of access to other data/functionalities or the complexity, albeit "perceived complexity", in extracting cross-functional/departmental data. The frequency of the data collection, which is daily, also may suggest a mostly operational utilisation of the data.

A lack of awareness and exploitation in the full range of PMS functionality is reported in this paper, which is exacerbated by lack of

interoperability, training and the perception that data management is more of an IT function due to the perceived high technical nature of these systems.

There are obvious limitations in this paper and may not be representative of all hotel properties. Nonetheless, the complex nature of hotel departments and data structures does not easily lend itself to investigation and this is the secondary research of this subject and hopefully, future researchers will be able to build on the methodology, methods and results.

It is recommended that managers should promote availability and awareness of data, invest in tools and processes that promote cross functional optimisation of data and link business objectives to data resources. Training is crucial to the successful of all these recommendations. To explore this further, this secondary research will proceed to a qualitative stage of research using focus groups, to determine the prevailing barriers and issues in more depth that hinder the profitable exploitation of data sources at property level.

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THE IMPLEMENTATION OF MARKETING STRATEGIES IN TRAVEL AGENCIES' BUSINESS IN THE REPUBLIC OF CROATIA

JEL classification: M19, L83

Abstract

The purpose of this paper refers to research the level of implementation of strategies in the Croatian travel agencies, which also represents a new direction for their development. The possibility to implement strategies referring to intermediaries depends on their area of application, the intensification of certain functions and fields of business and/or transformation of existing ones. Using the methods of explanation and description, based on the analysis of key assumptions so as to select specific strategy, resulting from the elaboration of scientific viewpoints of theoreticians engaged in this field, the first part of the paper defines strategies and related terms. In the second part of the paper the primary research was carried out with the survey method on a sample of travel agencies in the Republic of Croatia, to test the level of strategies implementation. The results of empirical research point to the greater or lesser presence of specific strategies in travel agencies' business whose implementation must comply with business terms according to the policy, i.e. unit's organizational culture, structure – scope, functions, and resource's specific features. The findings point to the dominance of the

implementation of marketing strategies in segment that defines the strategy of quality improvements and innovations of tourist products.

Key words: *travel agency, strategy of improving quality, the strategy of the „mass“marketing, strategy of innovation, innovative tools*

1. INTRODUCTION

In the second half of the 20 century phenomenon of tourism has demonstrated its ability to conquest appearances penetrating in the every sphere of life, conquering the spaces of the farthest points in the world. In the mass migration of tourists, tourism policy led a large scale. Low price of products, dictated the increased interest of tourists in the market for this type products. This phenomenon was accumulating additional participants in the tourism market which were conducted by the approach of the requirements for the uniform contents of the conventional products. Such tourists in their interests did not show any shift that could lead to the innovation offers. By creating a new socio-economic assumptions at the pole of tourist demand that has been evident through demographic changes in the market, began the process of market saturation. Decreased interest for the standardized and conventional products influenced on creating of additional space for tourist subjects and intermediaries for the creation of innovative and specific products according which criteria there should be able to estimate the value of competition. It would require new concepts and polices, redefining priorities even strategies to achieve the competitive conditions.

2. LITERATURE REVIEW

Buhalis and Costa have the opinion that the success of the tourism of the future is based on the cohesion and compatibility with the different branches (Buhalis, Costa, 2005, p.28). A central argument for the future success of tourism is a critical understanding of trends and using their positive effects, while annullment of negative. Fast-growing markets require rapidly growing-oriented strategic management. Strategy can be defined as the determination of the basic long-term goals of the company, as the choice of courses of actions and as the resource allocation needed for the implementation of the goals (Chandler, 1966, p.17). The strategy extends its meaning as including a selection of objectives as well as plans to achieve the goals, which determines areas of work and business of the company. Therefore, the "strategy involves a combination of the objectives and purposes, or involves a combination of the objectives and major policies and plans to achieve those goals." (Learned, 1965, p.17-18). But the definition of the Stanford Research Institute goes beyond, and equates strategy with the way "how the company, in response to their environment, uses its resources, and how the enterprise focuses its efforts prevalent in order to achieve its purpose"

(Learned,1965,p.17-18). Because the mass market has been individualized, in implementing the strategy of diversification travel agents must adapt its programs the specific requirements of the market groups that show similar preferences and the tendency of more homogeneous behaviors while requiring a certain level of the quality.

Internet represents a great opportunity for increase in new business ventures. The technology does not ensure the business development by itself, although it is very important assumption. Technology must serve the function of acquisition competencies based on the perform such as the efficiency of placements, using innovative tools used to penetrate to the market niches.

In the context of an efficient placement, innovations play an important role when communicating with clients and with competitors, so the innovative intermediaries in the tourism industry will be able to redirect resources and competence towards servicing customers and ensure a larger number of transactions. Emphasis must be placed to the reallocation of resources and knowledge to maximize compliance with the requirements of tourists, ensuring added value of achieved transaction (Buhalis, 2000,p. 99).

2.1. The Strategy of the „Mass“ marketing

The strategy of the „mass“ marketing is based on the oldest access to the market under which the company in achieving its aims uses mass production of one model of product / service, its mass distribution and promoting of the product among all the consumers / customers in a mass market. It is based on the logic of similar preferences of consumers / customer the lowest operating costs, low sales prices, the broadest of the products on the market (Baletić,1995,p.490).

The fundamental characteristics of such tourism is massiveness, with a numerous of participants on trips. According to analysts estimates of the world's tourist movements there are about 3.7 billion people that each year decide on some form of tourist travel. All the above confirms that tourism is one of the biggest, most dynamic, most complex - socio-economic phenomena contemporary times, and one of the main features of modern tourism can be considered its massiveness (Poon,1993,p.164) .

The strategy of the „mass“ marketing, ensuring physically large volume of travel, is based on demand for a simple product and the lower price level of products/services in the tourism industry. The tendencies of changes in priorities and the necessity of subjects to adapt to these changes through the reorientation in implementing the strategy of the „mass“ marketing towards the diversification are evident on tourism market.

The Croatian Competitiveness Initiative has completed the competitive strategy for Croatian tourism cluster. Based on that idea, by the end of the 2008 the mass tourism and on that basis conceived tourist product should have been gradually replaced by the recognizable and individualized products. Considering that the facilities and activities concentrate on specific resources, mostly anthropogenic-attractive, are not depending on the period of the year, nor climatic conditioned, there exists a great potential for initiating to development of certain regions. The possibilities offered within heterogeneous and specific areas could influence on the higher expenditure of tourists and extending the tourist season. The framework of a decentralized system of tourism should be concentrated on achieving of the successful tourism projects that would ensure sustainability rather than „mass“. The role of government should be focused on the integration of the existing projects, the promotion and the impact to the legislation. The tourism policies should be aimed at encouraging of contemporary events that have the higher potential for the global level. Local partnerships of private, public and the civil sector should have the task clustering within, and it could be seen that each participant has a specific task, sharing the purpose of promoting destination (Smeral,1996,p.71).

Using strategies that involve rational attitude to ecological, cultural and historical resources, could affect to the profitability of tourism, reducing the impacts what the mass tourism has caused in destinations, decreasing its attractiveness. Mass tourism, which shows no interest in using the specifics from the area, in a burst of from seasonal migrations of tourists to traditional tourist destinations, through the acculturation and the destructive elements that have been disturbing the natural harmony, the survival of entire tourist destinations have being continuously threatened. In that context observed, declining the tourist, "mass" is the task of the all subjects acting directly or indirectly in the tourism industry.

The extension of the tourist season can be based on the continuity of services and events organized out of season, and considering to the group of resources on which the activities were concentrated, there are no dependencies on the time using the services per season and scheduling the travel (Pavlić,2004,p.221). So, one of the possible ways in which can be avoided massiveness in a negative context refers to the ability of heterogeneous tourism regions and facilities, adapting to the needs of tourists. Some destinations can not rely on leisure type of tourism, based on the natural attractive factors – sea, sand and sun, due to lack of resources suitable for the development of this type of tourism. If there is a possibility it could be advisable the using of advantages of anthropogenic factors. On this basis, the development of tourism of another reverse should be stimulated, such as cultural tourism (Hodgson,1987,p.96).

But an indisputable fact related to the beginning of tourism development is based on the effects of mass tourism, involvement of people in migration directed to more distant destinations, in searching for experiences with an attempt

in striving for fulfilling their needs. This represented further incentive to intermediaries, which recognize its developmental chance in the interests of large masses of travelers interested in the benefits resulting from the organized modes of travel and the convenient use of travel packages. Their loyalty to the subject is not only reflected in choosing of standardized program, but through the diversified selection of the product acceptable for the new conditions and new interests.

2.2. The Strategy of Diversification and the Strategy of the Market Segmentation

The concentration of tourism demand, its specific form of the appearances on tourism market makes strain to the tourism supply (Vukonic,1998,p.48). "Classical mass production" replaces "mass production adapted to the individual customer," whereby producers must design the specific products according to the customers' specific interests. This claim sets further test to those entities of intermediaries who have its fundamental business philosophy, based themselves on the economics of scales. From the other side, the specific interests encourage creating the new market niches deepening differences between similar products. How to adapt to the environment, at the same time maximizing its opportunities in placement the products, represent the key issues of survival intermediaries in the competitive market conditions. The decision making process is difficult due to competition as well as great possibilities distinguishing among similar products intended to target market groups. Customization of placements of the products to such changes smoothly dictated by the market, tinting of characteristics of the product that is the recommendation to adaptive process, complicate the position of the market subjects in competitive conditions, while challenging the continuously growing of global "international players", and dictating the rules, as well as the quantitative increasing number of participants i.e. travelers whose cyclical movements to destinations throughout the year have the forms of "true migrations". Based on the Ansoff approach (Baletić,1995,p.136), business conditions are defined on the basis of the criterias that focus around three key categories: markets and products, and relationships between participants that determine actions and the direction of developmental strategies.

Terminological distinction between the concepts of diversification regarding the categories of analysis

Diversification of products related to "decision or commitment of enterprises to seek business opportunities outside the existing business," (Baletić,1995,p.137) is based on the specific relationship and connection between the participants, markets and products. The diversification can be implemented

according to the elements that do not relate to the product or the market, but derive from the corresponding specific relationships.

The diversification of tourism products and services is oriented primarily toward the development of new tourism products and services in emerging markets, or in existing with the emphasis on horizontal diversification of products. In this way the company its activities and contents of services focuses on improving its quality making them complementary in combination attractiveness of ambience in tourism destinations to boost competitiveness. Therefore, the possible diversification objectives are to increase the quality of services, the number of new products and services, increase revenue service providers, including increasing the share of tourists characterized by medium to high socioeconomic profile (Magaš,1996,p.49). The strategy of diversification in tourism industry represents one of possible ways of overcoming the mass tourism. That implies the implementation the strategy of segmentation with the parallel combination of the same to the strategy of diversification. Changes that are transparent, such as trends within the target groups and market niches, belonging to social and demographic groups in the meantime has been shown as "too rigidly" classification characteristic in tourism market, although the trends recorded in specific market segments such as the aging of the population, as the reflection of the demographic changes, could not be ignored. Market is decomposed into sub-groups that have been defined by lifestyle, personal preferences, needs and circumstances (Clemons,Hann,Hitt,2002,p.541).

The strategy of diversification as a developmental strategy is applied in a situation of restricted growth rates in the existing business and the current market, or do not meet the interests of the capital investment. Regarding the diversification of tourism products it is evident that the development of difference assortment, that subjects offer trying to customize needs of diverse segments on the tourism market, is actually in order to stimulate further interest customers realizing circulation and to ensure growth of companies - subjects in the tourism industry. Greatest potential for market growth indicate just all types of of specialized, thematic tourism offer.(Kenny,2009,p.124)

Activities and events are associated with the resources of a specific area that contain the values compared to the rich cultural and historical monuments and heritage value. But even within such a specific market segment that shows interest in this type of tourism, it evident the process of its subdivision to additional subgroups, which implies the ability for further specialization of activities and operations. More recently the so-called creative and hobby tourism have being developed. Features of this form of tourism lie in creative dimension of contents specialized according to specific interest groups. Facilities based on new types of tourism such as the hobby tourism can be realized throughout most of the year, regardless of the season. Completeness of its usefulness is implemented through the assumption of higher returns, satisfying the specific

needs of tourists, the achievement of individual approach to every visitor (Richards,1997,p.79).

Travel agencies have recognized this trend in a way that encourages the continuous development of the product, evident through the shift in the evolutionary concept of typical travel packages from standardized to those specialized. Course of transformation is based on the distinction between facilities of travel packages from the uniform - standardized travel packages from half of the 20th century, where dominated the passive type of holidays based on the complementarities of resources such as sun, sea and sand, until the moment when the technological capabilities create a framework for the development of new shapes and appearances, creating the specific innovative travel packages, at the same time based on new travel motives when an additional interest of the individual finds itself and the affinity comes into play. In such conditions, travel agencies and subjects of tourist offer recognize the additional interests.

As the "mass market individualizes" in the implementation of strategy of diversification which is based on previous assumptions, travel agencies as well as other providers in destination should be more specific and acceptable to the market niches that would within framework of its behavior show similar preferences and tendency to more homogeneous behavior while requiring a certain level of service quality. This implies the implementation **the strategy of the market segmentation** and its combination with the strategy of diversification. Additional value of segmentation strategy is expressed at the level of destinations through the adaptation of certain products of specific facilities providers to the categories of consumer preferences in the target markets whose specific request have a growing need for product based on the diversity substantive that are based on the assumption of the natural diversification of space. On that basis, in the terms of globalization through tourist demand and supply it has been shaped up advantageous market strategy in order to achieve an acceptable market position for participants.

2.3. The Strategy of Improving Product Quality

In order to explain in more detail the definitions special emphasis on its measurement needs to be put. Service Quality is measured, subjectively, by levels of consumer satisfaction in relation both to individual products and the overall tourism experience. In order of satisfaction of consumers' interests within certain market segment looking for more specific products and services, the company tends to specialize business activities. The role of the strategy of improving

product quality is crucial. Relevant indicators of quality levels may vary from product to product, but ingeneral the following information will need to be available for analysis: visitor surveys,visitor trends, purchasing trends, complaints, feedback. There will also be a need for benchmarking with similar products. Quality is not to be equated to luxury. It is a long-term process linked to credibility and image and must address all concerns of the tourist. Specially it is related with the concept of value for money , but not only comfort and price, but a global scope with other issues such as sustainability, safety and security, for example. The tourist product can be defined as the destination and process resulting in the consumer's overall experience. Tourist resources can be differentiated from tourist products in terms of commercialisation. The tourist experience covers a wide range of products of the tourist industry. Indicative examples are transport (charter and shuttle transportation, means of transportation by water, air, or land), tours (package, guided...), food and accommodation (hotels, inns, apartments, apartment hotels, camping sites, rural houses, restaurants), entertainment (adventure sports, animation services...) and services. The Quality System is a set of methodologies, standards and tools that allow companies and business to improve both quality management and/or the level of service provided (Nadkarni,Peng,2001). Regarding the competition in turbulent condition of management, the implementation of of this strategy in the framework of business of travel agencies seems being unavoidable. It is applicable at the level of internal marketing, the relationships between the employees, the quality of employee rewards including certification regarding the operations and **the quality of services**.

2.4 The Strategy of Innovation

The impact of modern technology are analyzed through the aspects of: technological innovation, the impact of technological innovations on travel consumers and the tourism demand, the impact of technological innovations on the business (Buhalis,Law,2008,p.608). Technological advances and tourism have been closely connected. Both areas have recorded exponential growth in the last 50 years (Poon,1993,p.62). Information and communication technology has influenced the global progress and the tourism development. Development of tourism has changed the practice of businesses and developmental strategies (Porter,2001,p.68). At the same time, the following new systems has dramatically changed the tactical and strategic business operations: CRS, Global Distribution System and Internet (Buhalis,2003,p.98). Innovation in e tourism industry represents implementation of new - improved ideas, procedures, goods, services and processes that give rise to the new dimension of benefits and quality.

It is defined as the new method of production of known goods or the detection and producing the new product types or market launching of new generating combination of products. The innovation is the manifestation of technological progress and of modern computerized progress (Buhalis,2003,p.322). Strategy of innovation in the tourism industry involves achieving more recognisability to create a better market position based on business methods and contents of products that are created for this purpose. It is possible to achieve several goals, such as increased traffic, revenues, and average spending per tourist (Aldaberta,Dangb,Longhib,2011,p.1209). It is important to continuously encourage innovation of products and services, which includes the direction of activities focused on new products and / or services, or to existing products and / or services. The main effects resulting from the impact of globalization on tourism have the emphasis on innovation, specialization and on the higher quality of products and services. Innovations in tourism industry indicate the assumption for achieving the possibility for holding positions on the local as well as the global market. Innovations have the key partnership in the economic development in the future. Considering the specificity of processes and methods, it is important to introduce the innovations as the basis for designing of tourism products and for achieving competitiveness not reserved just for large but also for small and medium enterprises in the tourism.

Strategy of innovation in tourism industry aims to highlight the quality and innovative programs and the systematic incentives to those entities that offer or aimed at offering different tourist facilities, services or products (Hjalager,2002,p.468). It clearly shows that a new way of thinking through the adaptation to the rapid changes within the dynamic tourist market, represent the basis of success of enterprises that will keep the advantage or achieve it in the future over its competitors through the various areas of business, from the financial management to the process of service delivery and development of product brands (Hjalager,2010,p.4).

3. THE METHODOLOGY OF RESEARCH

The distinction of travel agencies is a result of the logical consequences of developing conditions in the market. This is directly related to the position of travel agencies, their characteristics, the dominant functions that is based on the content of the majority of its business, and the specific content of the activities performed by underlying agencies. The delimitations has been taken into the account the accordance with scope of activities, types of ownership, organizational structure, mode of occurrence in the market, and the predominance of elements that dominate the business of some travel agency.

Preliminary research has been conducted in the Republic of Croatia in order to study the level of implementation of new strategies in business

operations of travel agencies considering the specifics of its business adapt to the demands of the requirements of specialization of activities. In the original empirical research, questionnaire was used to obtain results as response to questions:

- **on the role of implementation of the adequate strategy in business operations of travel agencies considering the specifics of its business adapt to the demands of the requirements of specialization of activities,**
- **on the data sources used by managers when choosing a strategy for specialization of business in travel agencies,**
- **on the attitudes of managers, reflecting on the possibilities of the process of specialization on the business of travel agencies,**

The survey encompasses travel agencies according to the following: region (Continental Croatia, Istria and Primorje, Dalmatia), dominant business function (organizational, intermediary), business type (emitting or initiative, receptive, emitting – receptive), business activity (wholesale, retail), organizational structure (without or with a branch network), and the manner of occurrence in the tourist market (independent, dependent).

Selection framework contains a list of target population members, and it is usually in the form of lists and databases. Sampled travel agencies were selected from the Croatia company directory of the Croatian Chamber of Economy, available on the website <http://www1.biznet.hr/HgkWeb/do/extlogon>. In June 2010 we found 1350 business entities whose primary activity is intermediation in tourism (NACE 79 Travel agency, tour operator and other reservation services and related activities).

Random sample is drawn from defined selection framework. By means of random number generator 200 travel agencies were selected, companies were contacted by phone so as to verify their primary activity, and willingness to participate in the survey. With regard to different features of travel agencies participating in the survey it can be concluded that their selection was representative. Results from the survey sample can be considered adequate for making relevant conclusions.

4. RESULTS OF THE RESEARCH

Respondents were asked to choose the sources of information on which they had been based selection of the strategy of specialization. The activities of travel agencies and operations have been based through the adaptation to the latest market trends and to structural changes. Results give evidence that 39% of

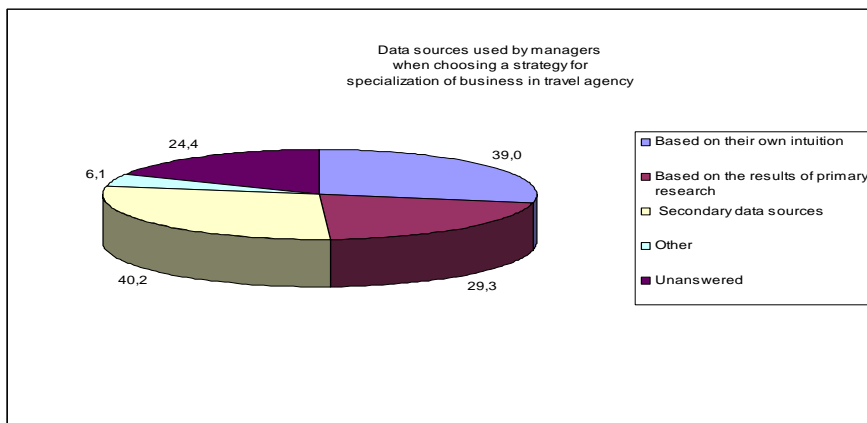
respondents was joined the responses on their own intuition, which is an enviable level of the percentage through the level of specialization that could have an impact on the quality of services of organizing trips or intermediary services within the framework of travel agencies in Croatia. Table 1 shows that about 40% of the respondents used secondary data sources, such as statistical yearbooks, publications and other printed annual reports. Due to the cost of negative possibilities of obtaining primary data sources, just 29% of the respondents used that sources.

Table 1 Data sources used by managers when choosing a strategy for specialization of business in travel agency

Data sources used by managers when choosing a strategy for specialization of business in travel agency		
	Frequency	Percent %
Based on their own intuition	32	39,0
Based on the results of primary research	24	29,3
Secondary data sources	33	40,2
Other	5	6,1
Unanswered	20	24,4

Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

Graph 1 Data sources used by managers when choosing a strategy for specialization of business in travel agencies



Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

In relation to the attitudes of managers reflecting on the possibilities of specialization on the business with emphasis on the organization of the functions and the main areas of activities within the travel agencies, travel agencies' board of directors mostly answered, so in that way concentrated their responds (57%), that possibilities of specialization on the business should be focused through the need for creation of new forms of travel packages. 43% of respondents answered that the possibilities of specialization on the business should be focused through feature of innovative forms of placement of individual services, which was highlighted in the Table no. 2.

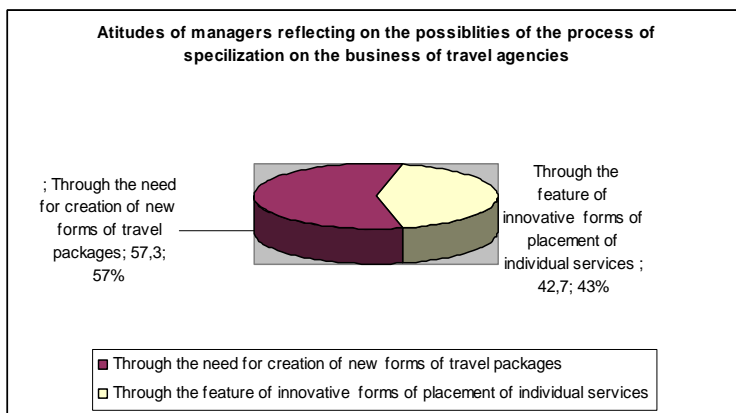
These are very interesting data with emphasis on necessity of implementing different approaches to the concept, moving away from the stereotype of ready-made and standardized forms of placement. Since the transformation of business of travel agencies has been mostly felt in the area of the placement of products and services, i.e. packages, the implementation of the strategy of innovation represents a necessary step to meet new trends in the behavior of consumers with new criteria for market access in evaluating the quality of service and product.

Table 2. Attitudes of managers reflecting on the possibilities of the process of specialization on the business of travel agencies

Attitudes of managers reflecting on the possibilities of the process of specialization on the business of travel agencies		
	Frequency	Percent %
Through the need for creation of new forms of travel packages	47	57
Through the feature of innovative forms of placement of individual services	35	43
Total	82	100

Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

Graph 2 Attitudes of managers reflecting on the possibilities of the process of specialization on the business of travel agencies



Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

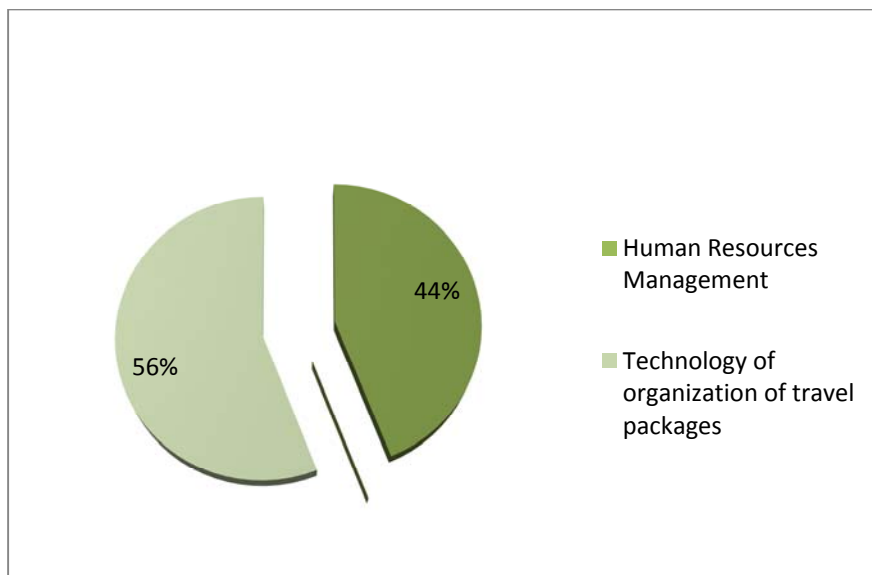
In responses relating to the most intensive impact of specialization activities within travel agencies, the most part of respondents (46%) points that the areas to be felt the most intensive impact of specialization activities of travel agencies refers to the area of technology of organization of travel packages, using innovative tools, and the area where the impact of specialization influences through the necessity for specialized, highly skilled and educated personnel (44%). Table no. 3. shows the data that support the importance of distinguished resources and the areas on which have been concentrating the functions and activities in the travel agencies. Also suggest on the complementarities of values of the resource of technology and human resources, crucial for specialization of business and the success of the company in the future.

Table 3 Areas to be felt the most intensive impact of specialization activities of travel agencies

Areas to be felt the most intensive impact of specialization activities of travel agencies		Frequency	Percent
Valid	Human Resources Management	36	44
	Technology of organization of travel packages	46	56
Total		82	100

Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

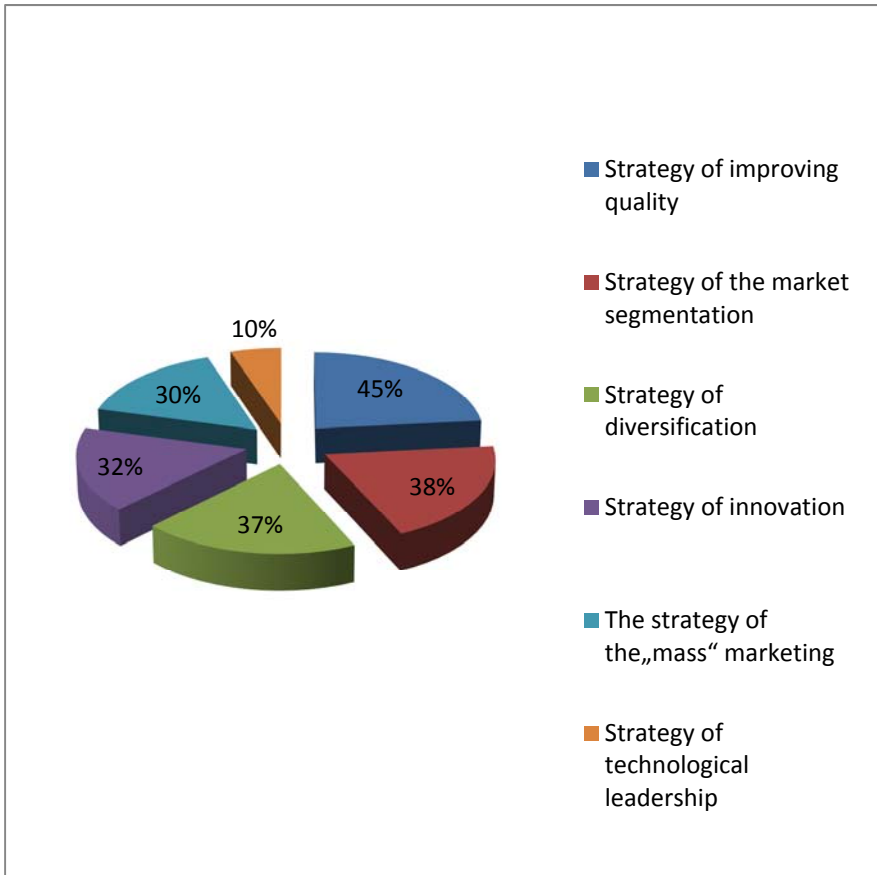
Graph 3 Areas to be felt the most intensive impact of specialization activities of travel agencies



Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

Respondents were asked to evaluate which strategies had been used in the business in order to adapt to the requirements of business specialization. The following answers had been offered to them: the strategy of improving product quality, the strategy of market segmentation - market niche strategy, Differentiated marketing strategy, the strategy of innovation, the „mass“ strategy and the strategy of technological leadership (Graph 4). Respecting this question respondents had the opportunity to respond with more than one answer.

Graph 4 The level of implementation of certain strategies in the Croatian travel agencies applied in the business for the purpose of adaptation to the requirements of business specialization



Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

Table 4 shows the characteristics of travel agencies considering new strategies used in the business in order to adapt to the requirements of business specialization. More often than the average of Croatian travel agencies, considering the significance of the use of the three main strategies (strategies of improving quality, differentiated marketing strategy and the strategy of segmentation) refers to travel agencies from continental Croatia, the agency is privately owned, in which framework of business is evident predominance of organizational functions of travel agencies, agencies-emitting Initiative character, that are dependent.

Table 4 Characteristics of travel agencies considering the attitude on the implementation of new strategies that are being used in business activities

		Strate gy of impro ving quality	Strate gy of the mar ket segme ntation	Strate gy of diversi ficatio n	Strate gy of innova tion	The strateg y of the „m ass“ marke -ting	Strate gy of techno - logical leaders hip	N	%
TOTAL		45%	38%	37%	32%	30%	10%	82	100%
REG ION	Conti nenta l Croa tia	56%	44%	50%	38%	31%	16%	32	39%
	Istria and Prim orje	27%	36%	27%	18%	36%	9%	11	13%
	Dalm atia	41%	33%	28%	31%	28%	5%	39	48%
TYP E OF OW NER SHIP	Priva te owne rship	54%	42%	50%	44%	33%	13%	48	59%
	State owne rship	32%	32%	18%	15%	26%	6%	34	41%
PRE DOM INA NT FUN CTI ON	Orga nizati onal	50%	42%	48%	42%	33%	13%	48	59%
	Inter medi ary	38%	32%	21%	18%	26%	6%	34	41%
CHA RAC TERI STIC S OF BUSI NES S	Outg oing/ Initia tive	60%	50%	50%	50%	30%	10%	10	12%
	Rece ptive	26%	26%	23%	26%	29%	10%	31	38%
	Outg oing -	56%	44%	44%	32%	32%	10%	41	50%

	receptive								
OBJECT OF THE BUSINESS	Wholesale	50%	50%	50%	100%	50%	100%	2	2%
	Retail	36%	27%	21%	18%	36%	6%	33	40%
	Wholesale - retail	51%	45%	47%	38%	26%	9%	47	57%
ORGANIZATIONAL STRUCTURE	Without office network	45%	35%	32%	29%	31%	11%	62	76%
	With office network	45%	45%	50%	40%	30%	5%	20	24%
THE WAYS OF PRESENTING ON THE MARKETS	Independent	44%	39%	35%	32%	29%	10%	79	96%
	Dependent	67%		67%	33%	67%		3	4%

Source: Opinion poll conducted on the sample of the travel agencies in the Republic of Croatia, September 2010; field analyses by the authors

The most part of respondents (45%) points the use strategy of improving product quality in order to adapt to market demands, (38%) respondents stated the use of the strategy of segmentation, and in the same time the differentiated marketing strategy (37%). One third of respondents stated the strategy of innovation (32%) and the „mass strategy“ (30%). Only one tenth of respondents point the significant strategy of technological leadership (10%) as an adequate tool for adaptation to the requirements of business specialization.

The results point out the significance of the implementation of the marketing strategy that defines the strategy of quality improvements and innovations of

tourist products. The significance of the implementation of the prominent strategies suggesting signs the development of activities of travel agencies in the Republic of Croatia.

4. CONCLUSION

In the future travel agencies will be developed depending on the capabilities and in accord with changes in the environment, changes in the tourism market, on which to adopt its business activities, but also emphasize the importance of intensifying efforts in the field of relations that produce the required services with the label more or less „standardized products“ and requested tourist products containing a higher or lower level of specificity.

Respondents as those in leadership positions in the travel agencies at the national level to implement this level of prominent strategy speaks of understanding the meaning of each individual strategy and serious approach to the analysis of trends and changes in the environment which are transferred to their own business concept most transparent through the creation of high quality distinctive tourist product (packages), in accordance with their specific interests and expectations of market segments. In the future we can expect a further course of evolution, development - business travel agencies based on intensifying changes in three main directions: improving the quality, the use of niche markets and diversification. Travel agencies will increasingly improve the quality of their products, but they will at the same time adapt to the specific needs of individual markets. The agency will seek to achieve its activities that produces as much different from other competitors. Such activities increases customer loyalty tourists travel agencies, ensuring the maintenance of a fixed base of tourists that guarantee a stable operation.

The phenomenon of tourism is based on the inclusion of the mass of passengers in tourist traffic directed to a distant destination, and it is indisputable fact about being based on social and development assumptions, intermediary market played an important role integrator interests of tourism and tourism demand . This represented a further incentive to mediation, which recognizes the opportunity for development in the interests of large enough mass of tourists interested in the benefits arising from organized modes of travel and the benefits of using travel arrangements. Such a mass of tourists continues the tradition of this kind of choice of travel, but whose loyalty agent today not only reflected in the selection of a standardized program, but much more, through diversified selection of products eligible for the new conditions and new interests.

The results of this research point out the significance of the implementation of the marketing strategy that defines the strategy of tourist product modification and within this the importance of the strategy of quality

improvements and innovations of tourist products. The significance of the implementation of the prominent strategies suggesting signs the development of activities of travel agencies in the Republic of Croatia.

Success of the strategy of innovation is based on creativity and developing new products and services in accordance with the interests of the tourism demand. ICT encourages continuous innovation in tourism enabling economic operators more efficient operations and competitive advantage.

The complementary role of ICT in an effective business operations and activities of the travel agencies is supported by the attitudes of numerous theorists in the field of tourism, some of which also clearly indicate that ICT has provided tourists easier and faster access to the services and these characteristics such as availability of access services occupy an increasingly important role in the perception of tourists in decision-making process (Williams, Shaw, 2011, p.32).

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RECOMMENDED CONTENTS OF BUSINESS PLANS AND FEASIBILITY STUDIES AT HOME AND ABROAD

JEL classification: O22, E27

Abstract

The aim of this paper is to analyze the recommended content of business plans and feasibility studies at home and abroad, to describe the differences and provide guidance and recommendations on how to improve the recommended contents. According to the recommended content (CBRD), there haven't been introduced analyses such as SWOT analysis, PEST analysis and VMOST analysis in Croatia. All major banking institutions that operate in the Croatian financial market accept CBRD's model. Whether the recommended content is good, what are the differences in terms of countries of the world, and how to make a good and quality business plan or feasibility study are the questions that this paper will try to answer.

The first part describes various recommended contents of business plans and feasibility studies at home and abroad and the second part describes the thanklessness of financial indicators projections nowadays. The third part of the paper analyzes why it is necessary to make analyses like SWOT, PESTLE and VMOST, along financial analysis, what they consist of, and how to do them well and efficiently. Also, the paper examines how they complement the financial tables and provide a better and wider picture of the entrepreneur, company or project.

In conclusion, the paper will show that the recommended content has to be modified and supplement these earlier analyses, and thus try to restore the confidence of potential investors.

Keywords: *business plans, feasibility studies, analysis*

1. INTRODUCTION

By observing and studying the economic crisis and its effects, both on the existing business and entrepreneurs, as well as those who are trying to succeed, it can be concluded that there is a need for a new wave of investment. Investors, as well as private banks have become skeptical of the existing methods of preparation of business plans and feasibility studies. Essential and rapid changes in the content of business plans and feasibility studies is what is needed. In order to restore the confidence of potential investors it is no longer enough just to show that the project is financially viable. It is known that the projection of Finance at the present time is a thankless job, and the results are often questionable, so it is necessary to prepare additional analyses such as SWOT, PEST (LE) and VMOST analysis, along the financial analysis. Comparing the recommended content of business plans and feasibility studies at home and abroad, we can conclude that the content varies. Using some form of SWOT, PEST (LE) and VMOST analysis is an integral part of the contents of business plans and feasibility studies abroad, whereas in Croatia they are not mentioned in the recommended content.

The aim of this paper is to analyze the recommended content of business plans and feasibility studies at home and abroad, to describe the differences and provide guidance and recommendations on how to improve the recommended contents.

2. WHAT BUSINESS PLANS AND FEASIBILITY STUDIES ARE?

Initially, it should be noted that the business plan and feasibility study, although at first glance similar, are not the same. A feasibility study is done before the business plan, before the implementation of virtually any activity related to the realization of business ideas. While the feasibility study tells us that it is profitable to go into a business idea, a business plan is complex and extensive, it gives us the financial indicators that talk about the vision, mission, goals, and other important factors that affect the business plan.

2.1. Business plan

Various authors have given their definition of a business plan, and some of them are: "Business plan is a document describing the current activities of a business, setting out its aims and objectives and how they are to be achieved over a set period of time." (BUSINESS The Ultimate Resource, Various Contributors, Bloomsbury publishing, 2002, p.1195)

"Entrepreneurial project or business plan is a document that elaborates in detail all aspects of entrepreneurial ideas and business opportunities, and based on

which a final decision on its possible implementation is made. An entrepreneurial project is, in fact, a systematically structured study from which you can read the relevant answers to all questions related to planning, initiating, funding, organization, administration, development and control of entrepreneurial ventures throughout your life." (Nikola Kuvačić, *Biznis-plan ili poduzetnički projekt*, Beretin d.o.o. Split, 2005. p.124)

A business plan can be defined as an important document whose content deals with smaller entrepreneurial ventures, it contains a complete and detailed investment business for beginners, but also for those that expand the business. It provides an assessment of the expected effects and models to solve problems in the future. Under this name hides a document that analyzes all the factors of the project.

2.1.1. Contents of business plan

When speaking of the recommended contents of the business plan, it can vary depending on whether it is home or abroad. Many forms of recommended content occur in Croatia, while the most appropriate and the most common recommended content is the one of the Croatian Bank for Reconstruction and Development. Commercial banks have their financial and market tables that vary from bank to bank, but if it is a financially demanding projects they require a business plan. Commercial banks accept business plans that have the recommended content CBRD.

When speaking of the recommended contents of the business plan (to HBOR), Croatia distinguishes recommended content to 700,000.00 HRK and above 700,000.00 HRK. Recommended content for total investment of less than HRK 700,000.00 is:

1.	INFORMATION ON ENTREPRENEURS
1.1.	ABOUT THE PERSONS IN UNDERTAKINGS
1.2.	ASSESSMENT ENTREPRENEURSHIP
2.	BACKGROUND
2.1.	GENESIS OF BUSINESS IDEAS
2.2.	THE REASON FOR ESTABLISHING
2.3.	VISION AND MISSION BUSINESS VENTURE
3.	SCOPE OF WORK (PRODUCT OR SERVICE)
4.	MARKET JUSTIFICATION
4.1.	PROCUREMENT MARKET
4.2.	SALES
5.	TECHNICAL DATA ELEMENTS OF ENTERPRISE
5.1.	DESCRIPTION OF TECHNOLOGY
5.2.	COST STRUCTURE

5.3.	STRUCTURE AND NUMBER OF EMPLOYEES
6.	LOCATION
7.	ENVIRONMENTAL PROTECTION
8.	FINANCIAL ELEMENTS OF ENTERPRISE
8.1.	INVESTMENTS IN FIXED
8.2.	CALCULATION OF AMORTIZATION SCHEDULE
8.3.	PRICE CALCULATION
8.4.	OPERATING EXPENSES
8.5.	INVESTMENTS IN CURRENT ASSETS
8.6.	SOURCES OF FINANCING
8.7.	INCOME (INCOME)
8.8.	INDICATOR OF THE EFFICIENCY
8.8.1.	FINANCIAL FLOWS (REVENUES AND EXPENDITURES)
9.	CONCLUSION

Tables 1. Recommended content for total investment of less than HRK 700.000,00

Source: www.hbor.hr

Recommended content for total investment of more than HRK 700,000.00 is:

INTRODUCTION
SUMMARY OF INVESTMENT
1. INFORMATION ENTREPRENEURS - INVESTOR
2. SUBJECT OF INVESTORS
3. EXISTING PROPERTY INVESTORS
4. ANALYSIS OF CURRENT FINANCIAL OPERATIONS
5. ASSESSMENT OF DEVELOPMENT OPPORTUNITIES INVESTORS
6. MARKET ANALYSIS
MARKET MANAGER
MARKET SALES
SUMMARY OF MARKET ANALYSIS AND ASSESSMENT OF INCOME GENERATION
7. DYNAMICS AND STRUCTURE EMPLOYEES
ANALYSIS OF PERSONNEL NEEDED
CALCULATION OF THE ANNUAL GROSS SALARY
8. TECHNICAL ELEMENTS OF INVESTMENT
DESCRIPTION OF TECHNOLOGICAL PROCESS
CONSUMPTION OF RAW MATERIALS AND ENERGY

¹ <http://www.hbor.hr/Art802>, [accessed 10.04.2013]

TECHNICAL STRUCTURE OF INVESTMENT
FEATURES OF THE BUILDING (OFFICE SPACE)
9. LOCATION
10. ENVIRONMENTAL PROTECTION
11. DYNAMICS REALIZATION OF INVESTMENTS
12. ECONOMIC AND FINANCIAL ANALYSIS
INVESTMENT IN FIXED ASSETS
INVESTMENT IN WORKING CAPITAL
THE STRUCTURE OF INVESTMENTS IN FIXED ASSETS AND WORKING CAPITAL
SOURCES OF FINANCING AND CREDIT TERMS
SOURCES OF FINANCING
CALCULATION OF CREDIT COMMITMENTS
CALCULATION OF DEPRECIATION
CALCULATION OF COST AND PRICE CALCULATION

2

Tables 2. Recommended content for total investment of more than HRK 700.000,00

Source: *www.hbor.hr*

Globally, some of the most recommended contents of the business plan, are those that are referred to in American literature. One of the main differences between Croatian and international recommended contents of business plans is that the international contains some form of or SWOT, PEST-LE and VMOST analysis. This is evident from the following recommended content of business plans:

ABSTRACT
A BRIEF DESCRIPTION OF THE BUSINESS IDEA
BRIEF DESCRIPTION OF SERVICES OFFERED
A BRIEF DESCRIPTION OF THE SPECIFIC ADVANTAGES OF THE CUSTOMER
YOUR ABILITY TO LEAD / FOUNDING COMPANIES
SALES EXPECTATIONS IN THE EARLY YEARS
THE PLANNED INITIAL AND ONGOING INVESTMENT
PROJECTED DEMAND FOR BORROWED FUNDS / LOANS / GRANTS
COMPANY PROFILE / BUSINESS PROFILE
KEY COMPANY: COMPANY NAME, BUSINESS PURPOSE, CONTACT DETAILS, OWNERSHIP STRUCTURE,

² <http://www.hbor.hr/Art801>, [accessed 10.04.2013]

CORPORATE HEADQUARTERS
PRESENTATION OF BUSINESS IDEAS
CONTRACTS HAVE BEEN CONCLUDED
EXISTING CUSTOMER ORDERS
CAREER IMPACT ON THE COMPANY (IF ONE EXISTS)
FORMAL PERSONAL INFORMATION SUCH AS AGE AND FAMILY SITUATION
THEIR COMPETENCY
THEIR COMMERCIAL SKILLS
THEIR MOTIVATION FOR SELF-
IN CASE OF LACK OF SKILLS: HOW TO GET RID OF THESE GAPS?
OBJECTIVES AND SUCCESS FACTORS OF YOUR BUSINESS
YOUR CHOICE OF LOCATIONS, INCLUDING JUSTIFICATION
SERVICES
SERVICES OFFERED BY THE COMPANY AT A GLANCE
DIFFERENCES IN YOUR OFFER SERVICES IN COMPETITION
A ROUGH DESCRIPTION OF THE PRODUCT CHARACTERISTICS
REPRESENTATION OF SPECIAL CUSTOMER BENEFITS
THE CURRENT STATE OF DEVELOPMENT OF ITS PRODUCTS
PROTECTION OF BUSINESS IDEAS, SUCH AS INTELLECTUAL PROPERTY RIGHTS
INDUSTRY, MARKET AND COMPETITION
NAME OF THE INDUSTRY
DESCRIPTION OF THE CHARACTERISTICS OF THE INDUSTRY RETURNS, BARRIERS TO ENTRY, TRANSPORT, ETC. (IT IS ONLY IN UNUSUAL SECTORS)
DELINEATION OF THE TARGET REGION
DEFINITION OF THE MAIN TARGET GROUPS
DESCRIPTION OF THE MAIN TARGET GROUPS AND JUSTIFIES THE SELECTION OF TARGET GROUPS
DETERMINATION OF KEY COMPETITORS
DESCRIPTION OF TARGET REGIONS AND THE MAIN TARGET GROUPS OF ITS COMPETITORS
DESCRIPTION OF THE STRENGTHS AND WEAKNESSES OF THEIR COMPETITORS IN RELATION TO THEIR OWN STRENGTHS AND WEAKNESSES
POSSIBLE REACTIONS OF COMPETITORS IN ITS MARKET ENTRY
THE MARKET POTENTIAL IN THE TARGET REGION WITH CERTAIN MAJOR TARGET GROUPS
MARKETING & PR

PRICE INCLUDES: REASON OWN COSTS, PRICE COMPETITION, THE VALUE OF THEIR PERFORMANCE FROM THE CUSTOMER'S PERSPECTIVE
DESCRIPTION PRICING STRATEGY: SETTLEMENT VS. AFTER HOURS. PACKAGE PRICE, QUANTITY SCALES, REBATES, DISCOUNTS, PAYMENT TERMS, ETC...
DESCRIPTION OF YOUR SALES CHANNELS
EXPECTED REVENUE PER CHANNEL
PLANNED PROMOTIONAL ACTIVITIES
PLANNED SALES PROMOTION
PLANNED PR CAMPAIGN
SALES TARGETS FOR THE FIRST YEAR
MANAGEMENT AND ORGANIZATION
PRESENTATION MANAGEMENT-/GRÜNDERTEAMS
PROFESSIONAL SKILLS MANAGEMENT-/GRÜNDERTEAMS
COMMERCIAL SKILLS MANAGEMENT-/GRÜNDERTEAMS
SOLUTIONS FOR THE EMERGING DEFICIT IN TERMS OF TECHNICAL AND / OR BUSINESS SKILLS
THE DISTRIBUTION OF TASKS WITHIN THE TEAM
PLANNED ORGANIZATIONAL STRUCTURE OF THE COMPANY
PLANNED HIRING EMPLOYEES: EMPLOYEES WHO, WHEN AND FOR WHAT TASKS?
ANY DESCRIPTION OF THE TECHNICAL AND OTHER OFFICE INFRASTRUCTURE
THE PLANNED PURCHASE OF EXTERNAL SERVICES (EG IN THE FIELD OF ACCOUNTING AND CONTROL)
PROCUREMENT AND PRODUCTION
RAW MATERIALS ARE: WHAT AND WHY, HOW, WHERE, POSSIBLE RISKS IN THE SUPPLY, QUALITY RISKS?
IDENTIFICATION OF SIGNIFICANT SUPPLIERS: STOCKS PURCHASE VOLUME, THE POTENTIAL RISK, THE APPOINTMENT OF ALTERNATIVE SUPPLIERS, SUPPLY AND QUALITY ASSURANCE MEASURES?
DESCRIPTION OF THE MEANS OF PRODUCTION: MANUFACTURING, PRODUCTION, STARTING FROM WHEN REPLACEMENTS ARE TO MEET POSSIBLE FUTURE EXPANSION, AS EMPLOYEES ARE NECESSARY, STORAGE, CONTROL AND QUALITY ASSURANCE MEASURES?
DESCRIPTION OF CAPACITY: PRODUCTION CAPACITY, INCREASE CAPACITY AND REDUCE POSSIBLE?
IMPLEMENTATION OF THE PLAN
REPRESENTING THE MILESTONES OF YOUR BUSINESS:

MILESTONES EXPECTED TO BE REACHED WHEN?
LET ALONE PROVIDES A GRAPHICAL REPRESENTATION OF AN EXAMPLE USING A NETWORK PLAN: HOW LONG WILL THE PROJECT ACTIVITIES THAT ARE PARTICULARLY IMPORTANT WHERE RISKS LURK?
OPPORTUNITIES AND RISKS
PRESENTATION FEATURES
TAKE A CHANCE ON YOUR STRENGTHS AND WEAKNESSES?
REPRESENTATION OF ENTERPRISE RISK
DESCRIPTION OF RISKS OUTSIDE THE COMPANY
TAKE A CHANCE ON THEIR OWN STRENGTHS AND WEAKNESSES?
PLANNED VORKEHRUNGS PROPHYLACTIC AND PREVENTIVE MEASURES
FINANCIAL PLANNING
PLANNING THE EXPECTED REVENUE
INVESTMENT AND FINANCIAL PLANNING
PLANNING EFFORT
ANY MINIMUM TURNOVER CALCULATION
PROJECTED PROFIT AND LOSS
CASH FLOW PLANNING AND DETAILED CASH FLOW FORECAST
ANY DECISION ON THE LEVEL OF SECURITY (OR CASH FLOW BREAKEVEN THRESHOLD)
YOU CAN SEE THE PROJECTED BALANCE SHEET,
APPENDIX
BIOGRAPHIES OF SHAREHOLDERS
TECHNICAL DETAILS OF THE PRODUCT
COST ESTIMATES FOR THE PLANNED INVESTMENT
THE RESULTS OF MARKET RESEARCH AND SURVEYS
OTHER TABLES AND GRAPHS

3

Tables 3. Recommended content

Source: www.gruendungswissen.at

1. Overview & Executive Summary
Executive Summary
Vision

³<http://www.gruendungswissen.at/gruendungswissen/blog-post/2011/03/02/checkliste-inhalt-businessplan/>, [accessed 12.04.2013]

1.2. Mission and Main Goals
2. Current Situation
2.1. Background
2.2. Fundamental Research & Development Projects
2.3. Industry
2.4. A Health Problem
2.5. Legislative surrounding
2.6. Economic surrounding
2.7. SWOT Analysis
Strengths
Weakness
Opportunities
Threats
2.8. PEST Analysis
Political factors:
Economic factors:
Social factors:
Technological factors:
3. Marketing Plan
3.1. Market Analysis
3.2. Target market segment strategy
3.3. Matching Products/Services to Market
3.4. Customer Profiles:
4. Resource Requirements
4.1. HR Plan
4.2. Facilities Plan
4.3. Equipment Plan
4.4 Organizational Plan
4.5. Risk Analysis & Contingency plan
5. Financial Plan
5.1. Investment Requirements and Analysis
5.2. Profit and Loss Plan
5.3. Cash Flow Projection
6. Action Plan

⁴ Personal contact, Ph.D. Neven. Žarković, Ruder Bošković Institute, Zagreb, Recommended content of the business plan from World Bank, contact was established 03.05.2013.

Tables 4. Recommended content of business plan from World Bank

Source: Personal contact, Ph.D. Neven. Žarković, Ruđer Bošković Institute, Zagreb

As it is evident from the previous recommended content in Croatian and world examples we can conclude that the world examples contain at least some examples of the forms or the entire SWOT, PEST-LE and VMOST analysis.

2.2. Feasibility study

Various authors have given their definition of a feasibility study, and one definition is: "A feasibility study is an investigation into a proposed plan or project to determine whether and how it can be successfully and profitably carried out." (BUSINESS The Ultimate Resource, Various Contributors, Bloomsbury publishing, 2002, p.1244)

A feasibility study can be defined as a study which can help a project manager to examine different methods of achieving goals, or defining projects. A feasibility study is done before the business plan, before conducting any activities related to the achievement of business ideas. A feasibility study tells us that it is worthwhile to go into a business idea.

2.3. Financial data in the business plans and feasibility studies

At a time of general crisis and the lack of investment it is necessary to launch a new investment cycle, investments that will rouse the economy and start its recovery. Such investments require business plans and feasibility studies. The recommended content is often the most numerous financial data and projections. In times of crisis all the financial projections are short-term, and one can not predict their course with certainty. In addition to the basic financial statements, such as profit and loss account, balance sheet, and indicators such as liquidity, solvency, turnover coefficient, etc., we can also find the static and dynamic parameters.

Static data is usually described with the help of indicators:

Profitability

annual retained earnings / total investments
 annual retained earnings + depreciation / total investment
 total annual income / total investments
 annual total (gross) income / total investments
 annual clean (net) profit / total investments

Liquidity

Current liquidity = current assets / current liabilities

Current liquidity = cash + securities / current liabilities

Of liquidity = (current assets - inventories) / current liabilities

Average collection days = receivables / (sales revenue) / 360

Average payment days = Current liabilities - loans / total expenditures / 360

Financial stability

Level of coverage I = current assets / equity + long-term liabilities

The degree of coverage II = current assets / equity

Working capital = current assets - current liabilities

Leverage

Interest coverage ratio = gross profit + interest / interest

Debt ratio = total debt / total assets

Indebtedness

The gearing ratio = total liabilities / total assets

The degree of self-financing = equity / total assets

The gearing ratio = loan capital / equity

Leverage = total liabilities / (gross profit + depreciation)

Repayment of loans

The coefficient of interest coverage = (gross profit + interest) / interest

Cash flow to revenue = net cash flow / total income

Economy

pure (net) profit / total production costs

total (gross) profit / total production costs

Retained profit / total production costs

(Retained earnings + depreciation - annuities) / total production costs

total revenue / total expenditure

Profitability

return on assets = gross profit - Liabilities

return on equity = net profit / equity

profit margin = gross profit / revenue

Earnings per share = net profit / number of shares

Efficiency

annual clean (net) profit / total investment

annual total (gross) profit / total investment

loan capital / total investment

total investment / number of new employees

total annual income / investment in fixed assets

Investment in fixed assets / number of new employees

Investment in fixed assets / total investment

investment in permanent working capital / total investment
own funds / total investment

Activities

coefficient of short-term assets = total revenue / current assets

coefficient of total assets = total revenue / total assets

Capital turnover ratio = income / capital

Productivity

Annual

pure (net) profit / average number of employees

annual product / spent working hours

annual total (gross) income / average number of employees

index of physical volume of production / employment index

total investments / average number of employees

total annual income / average number of employees

total annual income / value of labour expended

Efficiency

pure (net) profit / own funds

pure (net) profit + depreciation / annuity loans

pure (net) profit + depreciation / total investment

total (gross) profit / number of employees

total (gross) profit / total investment

total (gross) profit / total income

total (gross) profit / own funds

Total income / number of employees

Total income / working capital

total revenue / total investment

own funds / total investment

Dynamic Indicators are commonly described using the following methods: Method Investment Rate of Return Method net present value method relative present value and internal rate of return method. Being in the field of financial insecurity and uncertainty of success of the project, it is necessary to further analyze the business plan or idea. One of the best ways to do that is with the help of SWOT, PEST-LE and VEMOST analysis.

3. WHY SWOT, PEST-LE AND VMOST ANALYSIS

To be able to better understand why you should include the SWOT, PEST-LE and VMOST analyses in business plans and feasibility studies, alongside the financial indicators, it is important to define them first.

3.1. SWOT analysis

SWOT analysis (an acronym of Eng. Strengths, weaknesses, opportunities, threats) is an analysis of environmental factors (opportunities and threats) and the characteristics of the company (strengths and weaknesses), which companies offers in the process of strategic planning.⁵

SWOT analysis is defined as an important analysis of the internal and external factors in a project or business venture. Internal factors are strengths and weaknesses. The comparison of internal forces describes the benefits of the company against others in the market, they describe their workforce skills and leadership, and how these forces can affect the success of the project. Strengths and weaknesses in the SWOT analysis do not include all the features of an enterprise, but only those that relate to the key success factors. Characteristics of the company over the competition when we talk about the internal factors may be technology, life cycle, financial power, location, culture, organization, development of distribution channels and the like. It is important that power is based on facts.

External factors make analysis capabilities, that is, opportunities and threats. Companies must have the ability to notice the major threats and opportunities faced, and the ability to predict important events that could affect the company itself. It is important to recognize a particular threat, because it should be noted that not every threat to the company is of the same meaning, and does not require identical attention. It is necessary for the company to focus on the most damaging threat and prepare tactics to overcome it. Much as the need to detect and respond to threats, it is also of great importance for the company to evaluate every opportunity, taking into account the objectives of the enterprise and the resources available. Development opportunities include certain risks, the company estimates when the opportunity should be taken into account to justify the expected profits and risks. Characteristics of the company over the competition when we talk about external factors may be demographic, political, economic, suppliers, buyers, brokers, competition and so on.

⁵ Group of authors, (2011) Ekonomski leksikon, Leksikografski zavod Miroslav Krleža, Masmedia, Zagreb, p. 912

Strengths	Weaknesses
<ul style="list-style-type: none"> - The largest market share - A good company image - Good location and affordable range - Advanced production capabilities - Capable management - Built brand - Marketing Knowledge - Strong financial position 	<ul style="list-style-type: none"> - Lack of capital - Lack of strategic thinking - Neglected and outdated machines - High costs - Poor distribution - Poor marketing - Lack of knowledge and experience of employees - Unfavourable location - Substandard management
Opportunities	Threats
<ul style="list-style-type: none"> - High level of growth of existing markets - The emergence of new markets or segments - Dissemination activities working services for new groups of customers or the introduction of new products - Entering foreign markets 	<ul style="list-style-type: none"> - Reducing the growth of existing markets - Changes in consumer habits and needs - The emergence of the economic crisis - The entry of a new and strong competitor in the industry - The threat of foreign competitors - Unfavourable exchange rates and / or customs regulations that hamper exports

Tables 5. SWOT TABEL (Example 1)

Source: Made by authors

3.2. PEST-LE analysis

PESTL analysis (acronym of Eng. Political, economic, social / cultural, technological, legal / regulatory) is a political analysis of economic, social, technological and legal factors that may affect the company's business. It is carried out on the micro and macro level. Factors at the macro level are beyond the range and impact of companies, but they must be taken into account in formulating the company's strategy.

Factors at the micro level (competition, suppliers, distribution, customers, etc.) are related to local area businesses and the company may be partially affected by them

PESTL analysis helps strategic planners to isolate the environmental factors that the companies are most affected by. It is considered the input parameters for a SWOT analysis.⁶

⁶ Group of authors, (2011) Ekonomski leksikon, Leksikografski zavod Miroslav Krleža, Masmedia, Zagreb, p. 659

Pest analysis of the company detects external factors affecting the company itself. External factors in the marketing environment can not be controlled but companies can monitor and make business decisions in response to changing external factors.

Elements associated with the Pest-le analysis are: demographic - economic environment, technological environment, political - legal environment, socio - cultural environment, Environmental (ecological) and Legal. Demographic environment is of great importance for the company, as a growing population also means a larger number of human needs to be met, the increase in demand for certain products and services. As the enterprise would have to make business decisions, it must also take into account the economic impacts, such as economic growth, inflation, exchange rates, price and quality of the workforce and the availability of capital and credit conditions.

Technological environment refers to the innovation and improvement of production processes (or services) that are associated with technological improvement. The technological factors can be classified gains and calculated savings resulting from economies of scale. Technological environment is rapidly changing, and it is of great importance for companies to follow all technological developments, and to establish whether technological changes affect their products and services.

Political - legal environment, the decisions of the company are strongly influenced by political events, which consist of the legal framework, government agencies that restrict companies as well as individuals.

Socio-cultural environment is important when making business decisions, the company must take into account the demographics of the society, the level of education, religion and customs. Companies must be aware of the cultural influences on decision making.

	description	influence	<i>Trend</i>
Political	The Ministry of Economy, the Agency for the Protection of Competition, the State Inspectorate	strong	⇒
Economic	Economic trends, a period of prosperity, a period of recession.	strong	↗
Social	Social trends, lifestyle changes, changes in purchasing power.	strong	↗
Technology	Network systems, internet marketing, promotion, advertising	mediocre	⇒

Legal	Laws, consumer protection	weak	⇒
Environment	Environmental protection, certificates.	weak	⇓

Tables 6. PEST-LE TABEL (Example 2)

Source: Made by authors

3.3. VMOST analysis

When talking about the importance and value, VMOST analysis refers to its significance, both for owners and management, and the workers of enterprises. VMOST analysis analyzes the basic business guidelines in the short and long lifetime or cycle businesses. While the vision, mission and goals do not change every day, the strategies and tactics can be changed more often, depending on the impact on business.

VMOST analysis methodology (tool box) by which discusses business Strategy umbrella organization in the sense of:

- Analysis of the existing business strategy
- Decommissioning existing
- The creation of new

Conducted bi-directional:

TOP-DOWN and BOTTOM-UP

(To be adopted as a philosophy or model, rather than the name)

Vision: short, inspiring, future-oriented (with or without time periods) and generally without guidelines on how to get there

Mission: usually answers the question what is the meaning of, and where we work, who are our stakeholders, trying to guide the organization and a sense of priorities

Objectives: must be SMART-oriented: S (specific), M (measurable), A (achievable), R (realistic) and T (time). Also they have to be placed in the planning process and related activities, but they are focused on results.

Strategy:

strategy is a long-term action plan or idea executed in order to achieve one or more of the objectives, in support of the mission and-or vision.

Tactics:

lower level of organizing activities with defined resources, indicators, targets, time dimension of the project realization, marketing campaigns, etc.

- Harmonized
- balanced
- communicated

Example 3:

Made by authors

Vision

Successful business created on the basic principles in order to create a satisfied customer, orientation to meet their needs, preferences and desires.

Mission

Become the most important concessionaire in selling vehicles, to provide all necessary resources for the best performance of the company in order to identify and meet your needs and to become a successful company.

Objectives (goals)

1. increase new car sales by 8% in the next year
2. reduce the number of complaints on the service by 20% in the next year
3. faster collection of receivables (decrease DVK-day bond buyers)
4. extend deferred payment for delivered vehicles to 30 days from the date of delivery vehicles
5. development of a marketing plan for cars that are coming to our market
6. recruit new, highly educated people

Strategies

1. market research and external environment in order to achieve better sales,
2. better organization of the company in such a way that the right people are doing the jobs that match their skills and capabilities,
3. analysis of performance in order to increase the efficiency
4. new marketing moves to create a better image of the company

Tactics

1. satisfaction survey of new car buyers and customers of completed service vehicles
2. further education reseller various seminars
3. advertisements in newspapers
4. preparation of promotional materials for a performance at the Zagreb Fair

4 CONCLUSION

In countries with developed markets it is impossible to survive without careful planning and preparation of business plans and feasibility studies. We are witnessing the great recession and the collapse of a large number of enterprises. One of the important reasons is the lack of practice of writing business plans and feasibility studies. It is known that the projection of Finance at the present time is a thankless job, and its results often questionable, so it is necessary to prepare additional analyses such as SWOT, PEST (LE) and VMOST analysis along the financial analysis. Contents of business plans must include the financial analysis,

however, it is of great importance to feature also the SWOT, PEST (LE) and VMOST analyses. We believe that all stated studies examine the environment in which the company operates and allow comparisons with the competition. At a time of general crisis and the lack of investment it is necessary to launch a new investment cycle, investments that will rouse the economy and start its recovery. Such investments require business plans and feasibility studies. The recommended content is often the most numerous financial data and projections. In times of crisis all the financial projections are short-term, and one can not predict their course with certainty. In addition to the basic financial statements, such as profit and loss account, balance sheet, and indicators such as liquidity, solvency, turnover coefficient, etc., we can also find the static and dynamic parameters. A business plan is of great importance for every company, both for those companies that are just entering the business, and for those companies that expand business. It serves as a guideline to companies in business because it allows to solve problems in the future by using a variety of models and evaluation of the expected effects.

There is no success without planning!

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**ORGANIZATIONAL
ASSUMPTIONS FOR DEVELOPMENT
OF INTRAPRENEURSHIP IN COMPANIES ACROSS
BOSNIA AND HERZEGOVINA**

JEL classification: L26, M19

Abstract

Intrapreneurship holders are entrepreneurial employees who develop entrepreneurial activities within the existing enterprises, which in turn produces improved business performances. However, in order for entrepreneurial employees to act and release their creative energy, it is necessary to provide the specific organizational requirements. Specifically, the rigid traditional organizational structures and bureaucratic approach to job design, which is often inherent in large enterprises, are not suitable infrastructures for developing entrepreneurial climate in the organization. Consequently, the identification and analysis of the dominant type of organizational structure as well as the degree of centralization and formalization and the degree of specialization and application of teamwork in Bosnian companies, in light of ensuring organizational assumptions for the development of intrapreneurship in these companies, are only some of the

goals of this paper. This analysis will be based on the results of the empirical research conducted back in 2011, which covered a hundred of Bosnian companies, and also on the results of the GEM research back in 2011. This paper will include both the presentation and debate on the basic obstacles to the development of stronger Bosnian intrapreneurship in companies, but also recommendations regarding the content of the organizational changes that should be undertaken for this purpose.

Keywords: *intrapreneurship, organizational structure, job design, organizational change*

1. INTRODUCTION

The process of globalization has generated the growth of competition in the international market, necessity of applying flexible adaptation to increasingly demanding consumers, continuous development of new products and services and related innovation in the field of business processes and organizational procedures. It is a general view, in both the theory and practice of management, that the development of intrapreneurship, which includes entrepreneurship of large and existing enterprises, is becoming the core nucleus of the construction and preservation of competitive advantages of these companies. The key intrapreneurship holders are entrepreneurially orientated employees who develop entrepreneurial activity within the existing company, which has a positive impact on the effectiveness and efficiency of business. It has also been observed that entrepreneurially orientated employees have positive entrepreneurial attitudes and aspirations to start their own businesses, which has a positive impact on the economic development of the country. One of the key hypotheses for the entrepreneurial behavior of employees is the building of an appropriate organizational design that will allow the expression of their creativity and innovation and ensure the implementation of innovative ideas.

2. DEFINITION AND IMPORTANCE OF INTRAPRENEURSHIP

The term intrapreneurship is associated with the name of Gifford Pinchot, who started describing managers of large corporations who began to realize in the early 1980s that entrepreneurial ideas positively impact company's profitability. Intrapreneurship means the development of entrepreneurial spirit

and business culture, but it also includes assistance to innovative entrepreneurs in developing their business ideas, whereby they have company's infrastructure at their disposal, which makes a certain advantage compared to the self-employed. Intraentrepreneurs are "dreamers who work." They are the ones who take responsibility for creating innovation of any kind within the organization. They can be creators or inventors, but they are always dreamers who understand how to turn an idea into a profitable reality. (Pinchot, 1985, p.ix)

According to Nielsen, Peters and Hisrich, intrapreneurship includes internal development of relatively small and independent organizational units aimed at creation and internal review, and, in case of success confirmation, it also includes introduction of new services, technology or methods (1985, p. 181). Burgelman conceptualizes definition of corporate entrepreneurship as a process of "extending the competence of the company and the corresponding set of opportunities through the internal generation of new combinations of resources" (Burgelman, 1984, p.154). According to Covin and Slevin, the term intrapreneurship includes expanding the competence of enterprises, which in turn increases the potential opportunities, conditioned by new combinations of the already existing resources in the enterprise (Covin, J. G, Slevin, D. P, 1991, p. 7). For Zahra, intrapreneurship implies the sum of innovations, renewals, and entrepreneurial efforts (whereby innovation involves the introduction of new products and processes or establishing a new organizational structure). Renewal means revitalization of business operations, including the change of the basic purpose of the business. Entrepreneurial efforts are related to the expansion of activities into new areas and increased activity in the existing or new markets (Zahra, SA, 1996, p. 115). Morris and Kuratko claim that the use of "the term corporate entrepreneurship indicates that the basics do not change but only the context. However, they further state that there is a change in the basis of the organization but only when the concept is changed towards the direction of intrapreneurship (Morris and Kuratko, 2002, p. 62).

Corporate entrepreneurship flourishes when organizational structure has a relatively small number of levels. The key reason for this is that a limited number of levels results in a wider range of control, which in turn creates opportunities for employees to act entrepreneurially. With fewer managerial levels, power and responsibilities are decentralized, and this encourages the horizontal or lateral interactions among employees. The characteristics of the organizational structure that have been described make the creation of ideas and innovation at lower organizational levels easier and in the same time build a unique and creative management style (Ireland et al., 2006, p. 14).

Gibb believes that entrepreneurially designed organizations through their activities encourage and develop entrepreneurial potential at all levels by the following: creating and strengthening the sense of ownership, increasing the sense of freedom and control, tolerating uncertainty, developing an attitude for taking responsibility and understanding things in detail, building commitment over time, encouraging individuals to build relevant networks of stakeholders, encouraging and rewarding the process of learning directly from stakeholders, avoiding strict boundaries and systems that promote them, encouraging strategic thinking at the expense of formal planning, encouraging personal contact as the basis for building trust, etc. (Gibb, 1988).

3. FUNDAMENTAL CONCEPTS OF ORGANIZATIONAL DESIGN

The word *design* has its roots in the English language, which in its original sense means: blueprint, shaping, designing (Janicijevic, N., Petkovic, M., Bogicevic, B., pp. 53-54). The establishment of the concept of Organizational Design in management started in the 1960s. Namely, in their effort to emphasize the difference in the conditions under which organizations conduct their activities as well as to emphasize the complexity of the process of creating an organizational structure for a variety of conditions, modern management theoreticians introduced the concept of organizational design whereby they assessed the work on the organization design as one of the most important managerial activities.

Having reviewed the literature in the domain of organizational theory and management, we can come across numerous definitions of organizational design. However, what they all have in common is that "organizational design is presented as a process, consisting of a set of managerial activities in order to create a model of organizational structure that is consistent with the context of the organization" (Janicijevic, N., Petkovic, M., Bogicevic, B., 2002, p. 54). According to J. Greenberg and R. A. Baron, "Organizational Design involves the process of coordination of structural elements of the organization in the best possible way" (Greenberg, J. Baron, R. A, p. 542). In a broader sense, Organizational Design includes the process of creating an organizational structure that includes decisions on defining roles and positions, number of implementers, number and size of organizational units, lines of authority, way to integrate and coordinate the work of organizational units, control mechanisms and methods of decision making in organizations (Janicijevic, N., Petkovic, M., Bogicevic, B., 2002).

Decisions on the Organizational Design are of critical importance to a company, since by designing an adequate structure, the company becomes capable of creating the value for shareholders, employees, and consumers, and it also opens up new possibilities for the realization of high-performance of an organization, such as: effectiveness, efficiency, development, and even survival. Considering that organizations nowadays operate in a constantly changing environment, it is essential that their design allows them to adapt to these changes, otherwise their survival is questionable.

Parameters of Organizational Design¹

According to H. Mintzberg, the dimensions of the organizational structure can be structural and contextual (Daft, 1995, pp. 15-17). Structural dimensions describe the internal characteristics of the organization. In this context, the essence of Organizational Design consists of manipulating a series of parameters that determine labor division and achieve proper coordination. According to the author, the main parameters of the organizational design are as follows:

Specialization indicates the degree to which tasks of the organization are divided into separate businesses. In other words, work specialization defines a number of tasks in a given workplace, along with the level of authority and responsibility necessary to perform the activities that the job involves (Mintzberg, 1979). Provided that the specialization in the organization is emphasized (as is the case with the bureaucratic organization), every employee shall perform only narrowly defined jobs. On the contrary, a low level of specialization in the organization means that employees shall perform a wide range of tasks (as is the case with the entrepreneurial and innovative organization) (Daft, 1995, p.15). "Job enrichment," which is one of the trends in contemporary organized enterprises, is related to the expansion of the volume of work based on vertical and horizontal dimensions.

Formalization of Behavior is related to the standardization of work processes by means of the imposing operating instructions, job descriptions,

¹ See Sehic, Dz., Delic, A., Strategic Management and Organizational Effectiveness, Off Set Tuzla, 2012, p. 111- 133., based on the papers of H. Mintzberg: *The Structuring of Organizations*, Prantice Hall 1979.; *Power in and Around Organizations*, Prentice Hall, 1983.; *A Typology of Organizational Structure*, published as the third chapter in D. Miller and P. Friesen: *Organizations: A Quantum View*, Prantice Hall, 1984. and *Derving Configurations*, published as the 6th chapter in *Mintzberg on Management: Inside Our Strange World of Organization*, Free Press, 1989.

policies, procedures, regulations and the like. Therefore, formalization refers to the degree to which work tasks, status, and roles can be standardized. However, the principle is that a highly formalized standardization of work tasks, status, and roles leaves a minimum of discretionary rights at lower levels (in terms of the organizational hierarchy). The higher the degree of formalization, the more rigid organizational structure becomes. That is what creates the basis for the emergence of informal organizational structure. As a result, the structures that rely on any form of standardization aimed at coordination can be defined as bureaucratic, while those that do not rely on the formalization of the primary coordinating mechanism are defined as organic. It is interesting to observe that the degree of formalization in an organization can be measured by the number of written documents that describe the behavior and activities of the organization. On the one hand, a large organization with strictly formalized mode of business activities will have a huge number of written documents. On the other hand, small and young organizations do not usually possess written documents but if they do, it is usually a small number (Sehic, Dz., Rahimic, Z., p. 139.)

Complexity shows the number of activities or subsystems within the organization. It can be measured by using three dimensions: vertical, horizontal, and spatial (Sehic, Dz., Rahimic, Z., 2006, p. 139). Horizontal differentiation of elements refers to the degree of differentiation between the units based on the direction towards the workers, nature of the work tasks performed, and the level of education and codified knowledge, mostly expressed in a recognizable profession. The organization will have a greater horizontal complexity if a higher number of different jobs which, according to profession characteristics, require specialized knowledge and skills can be identified within the organization. Vertical differentiation refers to the depth of the organizational hierarchy, or in other words to the number of levels in the hierarchy, and stands in interrelation with horizontal differentiation. Spatial differentiation involves location and dislocation, and these include distance (spatial distance, both within a country and between countries) and numbers (of the located and dislocated parts of an organization).

Hierarchy of authority is to do with the relationship of subordination and superiority in the organization. The hierarchy reflects the range of management or in other words the number of subordinates with whom one manager can effectively operate.

Decentralization is related to the diffusion of decision-making power in the organizational hierarchy. When all the power is concentrated at the top of the organizational hierarchy, then its structure is centralized. When power is largely

dispersed to lower levels, one can talk about a relatively decentralized organization. It is possible to distinguish between vertical decentralization – delegation of formal power through the hierarchy to the line managers - from horizontal decentralization - the extent to which the formal or informal power is dispersed outside the hierarchy line to non - managers /operators, analysts and support staff / (Mintzberg, 1979).

4. ORGANIZATIONAL DESIGN AND INTRAPRENEURSHIP

Identification of organizational characteristics that enable and facilitate innovative processes and corporate entrepreneurship in the company has been the subject of study for numerous authors in the field of organization and management. The results of these studies generally reveal a positive association between higher levels of innovation and organizational design that has an organic character (Burns & Stakler, 1961, Pierce & Delbecq, 1973, Tornatzky et al., 1983). It has been proved that a relatively decentralized structure allows generating a larger number of creative ideas, resulting in a higher number of innovations in the organization (Burns & Stakler, 1961, Thomson, 1961; Kanter, 1983). Kim, Cohn, Hage, and Aiken, are some of the authors who also identified a positive association between innovation and a higher level of participation in decision-making (Cohn 1981, Hage & Aiken, 1970; Kim, 1980). When it comes to formalization as a dimension of organizational structure, the authors came to the conclusion that a lower level of formalization will considerably encourage innovative processes in the organization (Kanter, 1983, Van de Ven, 1989). Studies have also shown that a greater degree of organizational complexity means a higher level of organizational innovation (Hage & Aiken, 1970; Van de Ven, 1986). Therefore, we can conclude that numerous studies, in the period from the 1960s to the 1980s, resulted in the findings that organic structure (decentralized, informal, complex) positively affects the process of innovation, and consequently strengthens intrapreneurship (Russell & Russell, 1992 , pp. 642-643).

The association between characteristics of organizational design and intrapreneurship has been the subject of research since the 1980s and its outcome was the identification of numerous structural attributes that influence the entrepreneurial orientation of organization (see Carrier, 1996, Zahra, 1993, Russell, 1999). Considering that the environment in which contemporary enterprises operate is becoming increasingly complex and dynamic, it is essential to seek a new way of thinking to the management of organization. Most authors

agree that the development of entrepreneurial orientation is one of the key assumptions of not only the development but also the survival of companies that operate in the modern business environment. Hence, the choice of organizational design with features that facilitate the development of entrepreneurial orientation becomes one of important tasks in the enterprise (Simons, 2000; Slevin & Covin, 1990).

A high degree of formal control and rigid organizational structures restrain entrepreneurial behavior and limit individual performance in organizations (Morris & Trotter, 1990, Morris et al., 1993). Similarly, Zahra believes that quality communication between managers and their subordinates encourages, while excessive use of control mechanisms prevents development of entrepreneurial spirit (Zahra, 1993). According to Zahra and Carrier decentralized organizational structure facilitates horizontal, vertical and lateral communication within the organization and in the same way eases the exchange of creative ideas and the promotion of entrepreneurial spirit (Carrier, 1996). However, Simons pointed at the weakness of the lack of control in organizations, which can result in employees' dysfunctional behavior. That explains why this author proposes a framework entitled "levers of control", which implies such a degree of control that simultaneously prevents anarchy but also leaves enough space for the generation of creative ideas. Histich and Peters believe that the development of an entrepreneurial spirit in the organization requires the support of top management, who must create "positive culture" in which new ideas are encouraged and supported (Altinay & Altinay, 2004, pp. 334-336).

Having reviewed the literature on organizations and entrepreneurship one can conclude that the effect of the structural dimensions on the development of an entrepreneurial culture in the organization has drawn the attention of numerous authors. Most research in this field shows that there is a negative correlation between a high level of formalization and complexity of the organizational structure on the one hand, and a high level of development of entrepreneurial culture in the organization, on the other hand. Similarly, a positive correlation has been observed between a high level of decentralization and a high degree of development of entrepreneurial culture in the organization. (see Hatton & Roland, 2006; Farjadi, 2010; Asgari, Thaleghani & Pirkavafa, 2012, pp. 2249-2253).

Two components of the entrepreneurial process have been identified: opportunity identification and opportunity exploitation - as overlapping processes (eg, Bhave, 1994; Davidsson, 2004; Sarasvathy, 2001). K. Poudel and S. Thacher argue that the two overlapping processes give rise to two paradoxes - the paradox

of uncertainty and the paradox of inertia - and resolving these two paradoxes requires an entrepreneurially optimal organizational structure (Poudel & Thacher, 2010, p.3). Specifically, the rigid organizational structure facilitates the process of opportunity exploitation, while flexible/organic structure provides opportunity identification. Hence, it is necessary to examine the dimensions of the organizational structure and choose the organizational design (the so called entrepreneurial structure) that will facilitate the resolution of this paradox. In the analysis of organizational structure, usually three of its dimensions are taken into account: centralization, formalization and complexity. However, in their analysis of the attributes of the enterprise structure, Poudel and Thacher have introduced the third dimension - communication in the organization (although this has been partially covered by formalization as a structural dimension).

According to these authors, the richness of communication channels has a positive effect on opportunity identification as well as on opportunity exploitation. On the other hand, centralization makes opportunity identification process harder, but facilitates the process of business ideas exploitation. Similarly, the impact of standardization of processes and procedures has positive impact exploitation, and a negative impact on the identification of entrepreneurial ideas /as it limits the creativity of employees/ (see Poudel & Thacher, 2010, pp.15-35)

5. THE RESULTS OF EMPIRICAL RESEARCH

The basic set of this study comprises of a hundred companies across Bosnia and Herzegovina, from various sectors, which are geographically dispersed throughout the whole country. The main instrument for collecting data for research purposes was a questionnaire. Questionnaires were distributed to the top managers of companies, and there was an open opportunity where general managers or any members of the top management team had a choice to fill in the questionnaires themselves. The questionnaire was designed in accordance with the content elements of the underlying research, where, in most cases, the form of closed questions was chosen, such as: a) multiple choice questions with a number of enumerations, b) multiple choice questions of intensity. For multiple choice questions of intensity, Likert scale was applied. A total of 86 questionnaires were filled and returned, that is 86%, which is satisfactory in terms of representative quality of the survey sample. By an insight into the structure of the collected empirical data, we come to a conclusion that 36 companies, according to the

criterion of the number of employees, belong to the category of medium-sized and large companies, while the remaining 50 companies that were included in the survey belong to the category of small and micro enterprises. Since small and micro enterprises do not have a sufficiently developed organizational structure, a more detailed analysis of the structural features, which are important for the development of intrapreneurship, was carried out in 36 medium and large enterprises. The results of this analysis will be presented further below.

The results of the empirical research show that the functional organizational structure is dominant in the medium and large enterprises across Bosnia and Herzegovina. A relatively high degree of centralization is established in these companies. Specifically, 50% of the decisions were made by the company's top managers without the involvement and consultation of subordinates and in 62% of the cases, communication is achieved through top-down system. The situation is somewhat better in the field of engaging employees in the process of setting goals (in 39% of the companies, based on the sample it was determined that the employees are involved in the process of setting goals).

Table 1 The level of centralization/decentralization

The level of centralization/decentralization in your enterprise/company:	I totally agree	I agree	I agree to a certain extent	I disagree	I totally disagree
Decisions in your company are delivered by top-management, without the involvement and consultation with their subordinates.	22%	28%	31%	17%	3%
All decisions are made by managers and their subordinates are to follow them.	19%	39%	25%	8%	8%
Subordinates are not involved in the process of setting organizational goals.	3%	36%	22%	33%	6%
Tasks are usually assigned in writing.	11%	31%	28%	25%	6%
Communication takes place entirely from top to bottom (in terms of the organizational hierarchy).	31%	31%	28%	8%	3%
Lower level employees' suggestions are very rarely appreciated when solving a particular problem.	3%	19%	19%	42%	17%

According to the results, a noticeably high degree of formalization in the companies has been noticed in the companies across the country. As it has been already pointed out by the theoretical knowledge and the results of research studies, a high degree of formalization in the organization exists when communication is largely carried out in writing and when writing reports are a preferred control mechanism. The formal control in Bosnian companies is largely

based on a huge number of written documents governing the behavior of employees (with this statement 14% fully agreed, 31% agreed, and 39% agreed to a certain extent). It can be helpful to add that the control is based on frequent submission of written reports (only 14% of companies reported no agreement with this statement).

Table 2 Formal control in organization

Formal control in your enterprise/company is based on the following:	I totally agree	I agree	I agree to a certain extent	I disagree	I totally disagree
Compliance with rigid rules and accurately defined procedures.	19%	31%	33%	14%	3%
A large number of written documents which regulate behavior of employees.	14%	31%	39%	17%	0%
Frequently submitted written reports on the accomplished work tasks.	22%	39%	25%	14%	0%
Supervision of supervisors over all activities of their subordinates.	22%	50%	22%	3%	3%
Establishing a cost responsibility center (organizational units are responsible for the costs associated with their business operations).	11%	39%	25%	19%	6%
Establishing responsibility centers of income (organizational units are responsible for the accomplished income)	14%	31%	28%	22%	6%
Establishing responsibility centers of profit (organizational units are responsible for the profits they achieve).	6%	28%	36%	28%	3%
Establishment of investment responsibility centers (organizational units are responsible for the profit and refund on investment associated with an organizational unit)	11%	25%	33%	28%	3%
Evaluation of employees' performance in the company is carried out constantly and it is what determines the amount of salary and opportunity for advancement.	14%	33%	28%	19%	6%

On the other hand, empirical results show that there is a relatively high level of satisfaction with the job design in Bosnian companies. Generally, the results of the research in this field show a lower degree of specialization and a broader scope of work with the existence of a lower degree of monotony at work.

Table 3 Methods of job designing

Methods of job designing:	I totally agree	I agree	I agree to a certain extent	I disagree	I totally disagree
a) I believe that jobs are too narrowly defined and that employees should have greater authority.	3%	22%	36%	33%	6%
b) I believe the work performance of employees is far too dependent on the conducting of other employees / colleagues because of the current systematization of jobs, making them limited and slow in completing their work tasks.	0%	22%	33%	42%	3%
c) There is an apparent monotony and lack of enthusiasm among the employees who perform the same types of jobs in their workplace.	6%	17%	36%	33%	8%
d) I believe that employees are generally too busy at work because of new, daily challenges (solving complex problems and making difficult decisions.	0%	17%	31%	50%	3%
e) Employees receive feedback on the quality of work they have done.	19%	33%	28%	17%	3%

f) Employees are given a degree of freedom in choosing their own timing for a break /rest during working hours.	19%	33%	19%	19%	8%
g) A large number of jobs in your company is performed in a team.	25%	39%	33%	3%	0%
h) Employees have a high degree of freedom in making decisions related to performance of the tasks in their job description.	6%	28%	39%	28%	0%
i) Employees work in pleasant physical conditions.	28%	39%	22%	6%	6%
j) Jobs are designed in accordance with the person's psychophysical condition.	22%	33%	36%	8%	0%

The study results have revealed a positive relationship that Bosnian enterprises have towards teams and teamwork. It has been observed that team work is challenging for the employees (only 14% of the companies disagreed with this statement in the sample), that team work opens up the possibility of acquiring new knowledge and experiences (there was no agreement with this statement in only 3% of the cases), that the quality of communication becomes better through team work in the organization (only 3% disagreed with this statement).

Table 4 Attitudes towards team work

Attitudes towards team work	I totally agree	I agree	I agree to a certain extent	I disagree	I totally disagree
a) I believe that the work of employees would be more challenging if it involved a team.	25%	33%	28%	14%	0%
b) I believe that the intensive work performance in a team would produce a number of conflicts in the organization.	3%	17%	36%	39%	6%
c) When a business task is performed by a team, the individual members are prone to absenteeism, while others work hard.	11%	25%	31%	25%	8%
d) Team work expands the base of knowledge and experience.	22%	47%	28%	3%	0%
e) Teamwork increases efficiency in solving the problems we face.	19%	64%	17%	0%	0%
f) Team work means more effective distribution of work tasks.	17%	56%	25%	3%	0%
g) Work in a team motivates and stimulates team members to work harder.	11%	58%	25%	6%	0%
h) The individual performance within a team increases social pressure.	11%	33%	47%	8%	0%
i) Due to differences in personalities and approaches to solving problems among team members, team work is	6%	11%	28%	50%	6%

stressful and frustrating.					
j) Communication between employees is improved by team work.	19%	67%	11%	3%	0%
k) Teamwork increases business flexibility.	11%	56%	33%	0%	0%
l) Teamwork significantly reduces costs (reduction of mid-level management).	14%	39%	39%	8%	0%
m) A lot of time and energy is spent for the development of team community.	3%	11%	53%	28%	6%
n) The dominance of one group or fraction within the team regarding the other members reduces contribution of the whole team.	6%	25%	28%	39%	3%

6. CONCLUSION

Dynamic, complex and heterogeneous environment imposes entrepreneurial behavior on modern enterprises as a precondition for the construction and preservation of competitive advantage. Appropriate organizational design requires open communication channels, greater degree of decentralization, and smaller number of hierarchical levels, networking of various units, and flexibly designed jobs. Although the notion about the importance of intrapreneurship has already been developed, the systems that the company often builds standardize behavior and encourage conservative behavior. The rigid hierarchical structure makes it difficult to react quickly to changes in the environment as well as to implement new ideas. Regulations and rigid adherence to strict rules and procedures slows entrepreneurial endeavors and limits creativity and innovation of intraenterpreuters. Therefore, shaping entrepreneurial organization requires an organizational structure that has an organic character and allows for entrepreneurial orientation. Due to non-standardization in the way of

functioning, entrepreneurial organizations have a strong culture whose basic norms and values motivate and guide employees to innovative behavior. Entrepreneurial culture is characterized by encouraging initiative in seeking and exploiting opportunities, teamwork, a high level of risk tolerance and failure, avoiding the use of rigid control mechanisms, low level of formalization, open communication, and a high degree of identifying employees' personal goals with the goals of the company. The results of the empirical research that are partially presented in this paper show that the companies in Bosnia and Herzegovina have a relatively high degree of centralization and formalization, which can be one of serious obstacles to the development of stronger intrapreneurship in the companies. On the other hand, a relatively satisfactory job design (wider specialization or expended volume of work), and a positive attitude towards inter functional cooperation and teamwork, opens the possibility for strengthening entrepreneurial behavior in Bosnian companies. The results of the GEM research in 2011 showed that developing entrepreneurial potential of employees who initiate business activities in enterprises, as an alternative way of exploiting business opportunities, is one of the key preconditions for the growth and development of Bosnian enterprises. According to the GEM recommendations for Bosnia and Herzegovina in 2011, what needs to be done is raising awareness of employers about the importance of activating the entrepreneurial potential of their employees through employee involvement in decision-making on innovation and expansion of business. By taking into account the results of the empirical study, whose results were partially presented in this paper along with the results of the GEM study, it can be concluded that managers in Bosnian companies should pay more attention to the implementation of organizational changes, which would be aimed at achieving the organizational preconditions for stronger development of intrapreneurship in these companies.

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STRATEGIC MANAGEMENT AND ITS IMPLEMENTATION IN THE PRACTICE OF ENTERPRISES IN BOSNIA AND HERZEGOVINA

JEL classification: M19

Abstract

Management tasks are focused both on good current business results (operations management task) and good operating results in the future, (strategic management task). Survival, growth and development at the market imply competitiveness. Enterprises can be competitive in designing, adopting and implementing appropriate strategies based on good and a reasonable mission and well-planned strategic vision that will enable the achievement of planned and desirable business objectives, financial (for liquid – operations management) and strategic, for successful business in the future. Economy in Bosnia and Herzegovina is relatively undeveloped, economic system is not equal to the economies of developed countries because private enterprises and entrepreneurship do not have a dominant role. The aim of this paper is to describe strategic management theories and their implementation in the practice of enterprises in Bosnia and Herzegovina. According to the results of empirical research, top management is focused exclusively to the

achievement of good results, current operations, and almost do not think about the future (they are focused on the strategy of survival). Top and middle level managers have a low level of education; they cannot understand the meaning of strategic intention: vision, mission, goals, strategies and strategic planning. Management in non-privatized enterprises take formal rather than real responsibility for the overall business success, and the authorities do almost nothing to continue the privatization process.

Keywords: strategic management, strategic intention, enterprises in Bosnia and Herzegovina

1. INTRODUCTION

There are several reasons, motives and objectives for undertaking business activities, and one of them, the indispensable and most important, is to make a profit. All stakeholders are interested in business success of the enterprise. Enterprises that are new to the business activities as well as those already engaged in business activities are interested in the answers to the most important questions: what their current market position is; what their market position in relation to their competitors is; where they want to be in the future; which aims to achieve.

This paper discusses the terms such as strategic management and strategic intent in organizations. Strategic management consists of the analysis, decisions, and actions an organization undertakes in order to create and sustain competitive advantages. This definition includes two main elements that go to the heart of the field of strategic management. First, the strategic management of an organization entails three ongoing processes: analysis, decisions, and actions. Strategic management analyses strategic goals (vision, mission, and strategic objectives) along with the internal and external environment of the organization. Then, leaders must make strategic decisions. These decisions, broadly speaking, address two basic questions: What industries should we compete in? How should we compete in those industries? These questions also often involve organization's domestic as well as international operations, followed by the actions to be taken. Decisions are of little use unless implemented. Enterprises must take the necessary actions to implement their strategies, and managers are required to allocate the necessary resources and to design the organization to bring the intended strategies to reality. As it is suggested in the following section, this is an ongoing, evolving process that requires a great deal of interaction among these three processes. Secondly, strategic management analyses why some enterprises outperform others. Therefore, managers should determine the enterprise's competing methods to obtain the advantages that are sustainable over a lengthy period of time. This includes focusing on two fundamental questions: How should we compete in order to create competitive advantages in the marketplace? For example, managers need to determine if the enterprise should position itself as a low-cost producer, or develop products and services that are unique and which will enable the enterprise to charge premium prices-or some combination of both. Managers must also ask how to make such advantages sustainable, instead of highly temporary, in the marketplace. That is: How can we create competitive advantages in the marketplace that are not only unique and valuable but also difficult for competitors to copy or substitute? Michael Porter argues that sustainable competitive advantage cannot be achieved through operational effectiveness alone. Most of the popular management innovations of the last two decades-total quality, just-in-time, benchmarking, business process reengineering, outsourcing all are about operational effectiveness. Operational effectiveness means performing similar activities better than rivals. Strategy is all about being different from everyone else. Sustainable competitive advantage is possible only

through performing different activities from rivals or performing similar activities in different ways. (Dess, Gregory G., G.T. Lumpkin and Marilyn L. Taylor, 2005).

Strategic intent, defined by Hamel and Prahalad (1989) as "... a sustained obsession with winning at all levels of the organization", was originally created as a concept for a managerial audience (Hamel Prahalad, 1989; 1994; Prahalad and Doz, 1987) but the concept has been taken up in academic discourse of organizational strategy (Burgelman, 1996; Lovas and Ghoshal, 2000; Noda & Bower, 1996). The managerial role of strategic intent is to go beyond environment-sensitive strategic planning to represent objectives "for which one cannot plan" (Hamel and Prahalad, 1989).

Strategic intent reflects the 'corporate context' in which bottomup business ideas are weighed (Noda and Bower, 1996, Lovas and Ghoshal, 2000). It directs the accumulation of necessary competencies (Hamel and Prahalad, 1989), giving the intraorganizational evolution processes a common target, "something to 'aim' for" (Lovas and Ghoshal, 2000).

2. STRATEGIC INTENT IN A CONTEXT OF STRATEGIC MANAGEMENT

Intent, a psychological concept, is held by a conscious subject, capable of forming intentional states, mental states connected to an external reality (Searle, 1983). Intent contains a conviction to achieve a certain state of affairs in the future (Bratman, 1999; Searle, 1983). In the field of management, there exist a number of concepts which are used by members to discuss such futureoriented behavior. We will begin by positioning strategic intent among two of the most relevant of these, goals and visions.

Goals state what is to be achieved and when. Although goals do not usually state how results are to be achieved, they should be achievable (Quinn, 1995). Strategic intent is different from goal in being superordinate to it (Hart, 1992), long term or very long term (Prahalad and Doz, 1987, Hamel and Prahalad, 1989, Burgelman and Grove, 1996, Hart, 1992), uncertain in its achievability (Burgelman and Grove, 1996), linked to core competences (Prahalad and Hamel, 1990) and of high significance. Both goals and strategic intent are prospective (Burgelman and Grove, 1996) and inspirational (Hart, 1992).

A *vision*, on the other hand, is defined as a set of desired goals and activities (Gardner and Avolio, 1998). It has connotations of encouraging strong corporate values in the strategy process (Conger and Kanungo) and so is similar to strategic intent in its emotional effects. Moreover, like strategic intent, it goes beyond mere planning and strategy – by challenging organizational members to go beyond the status quo – and it offers longterm direction (Nonaka, 1988). The

most striking difference between visions and strategic intents is the degree of collectivity, as many authors ascribe a strategic intent as a phenomenon diffused at multiple organizational levels (see Table 1 below), while a vision is more clearly a top management leadership tool (Kotter, 1995), often ascribed to a single visionary leader (Mintzberg and Waters, 1985).

Table 1. Literature overview of strategic intent

Authors	Definition of intent	The 'we' of the intent
Pralhad & Doz (1987)	<p>Goal for which one cannot plan, longterm goal, longterm orientation</p> <p>“”Intent” is used here to describe longterm goals and aims, rather than detached plans</p> <p>[...] strategic intent is crucial for a firm to aim for goals for which one cannot plan. It is important to separate that orientation (strategic intent) from strategic planning or strategies. Strategic intent allows for a firm to build layers of competitive advantage painstakingly, to accomplish longterm goals.” (p. 52)</p>	<p>Top management</p> <ul style="list-style-type: none"> · no mention of employee involvement · “firm action and intent” discussed only in singular form, e.g., “a firm’s strategic intent allows it to think of resources and competitive advantages differently and to deploy them with greater imagination”(p. 52)
Hamel & Prahalad (1989)	<p>Shared obsession to win</p> <p>“Entreprises that have risen to global leadership [...] began with ambitions that were out of proportion to their resources and capabilities. But they created an obsession with winning at all levels of the organization and then sustained that obsession over the 10to 20 year quest for global leadership. We term this obsession “strategic intent”.” (p. 64)</p>	<p>All organizational members</p> <p>“It is hard to imagine middle managers, let alone bluecollar employees, waking up each day with the sole thought of creating more shareholder wealth. But mightn’t they feel different, given the challenge to “Beat Benz” – the rallying cry of one Japanese auto producer?” (p. 66)</p>
Hamel &	<p>The dream that energizes a enterprise</p>	<p>All organizational members</p> <p>“It is not the cash that fuels</p>

<p>Prahalad (1994)</p>	<p>[...] Strategic intent is our term for such an animating dream.” (p. 129)</p> <p>“As the distilled essence of a firm’s strategic architecture, strategic intent also implies a particular point of view about the longterm market or competitive position that a firm hopes to build over the coming decade or so. Hence, it conveys a sense of direction [...]</p> <p>It holds out to employees the promise of exploring new competitive territory. Hence, it conveys a sense of discovery. Strategic intent has an emotional edge to it; it is a goal that employees perceive as inherently worthwhile. Hence, it implies a sense of destiny.”(p. 129</p>	<p>the journey to the future, but the emotional and intellectual energy of every employee.” (p. 127)</p> <p>“Strategic intent must be a goal that commands the respect and allegiance of every employee” (p. 133)</p>
<p>Burgelman (1994)</p>	<p>A prophesy, foresight by the CEO</p> <p>“Prahalad and Hamel (1990) have explained the success of enterprises such as Canon, NEC, and Ericsson in terms of the development of core competence. Their explanation depends to a large extent on strategic intent based on the chief executive officer's (CEO's) superior foresight” (p. 25).</p>	<p>CEO</p> <p>“based on the chief executive officer's” (p.25)</p>
<p>Burgelman & Grove (1996)</p>	<p>Top management decision</p> <p>“Strategic dissonance [misalignment between a firm's strategic intent and strategic action], strategic inflection point [the change of one winning strategy into another], and strategic recognition [the capacity</p>	<p>CEO</p> <p>“the strategic intent of the CEO who sets ambitious targets within a 10 to 20 year time horizon,” (p. 8) “Apple Computer's CEO John Sculley was clearly in front of his organization when he</p>

	of top managers to appreciate the strategic importance of managerial initiatives after they have come about but before unequivocal environmental feedback is available] are the three interrelated key concepts that answer the question of how top management can decide on strategic intent in hightechnology industries.” (p. 12)	pushed the strategy of developing personal digital assistants (PDA) and personally championed the Newton operating system. Sculley's strategic intent stretched beyond Apple's available innovative capabilities and the market's readiness”. (p. 1516).
Hart (1992)	<p>Mission (superior goal) for the organization,</p> <p>“the crafting of a longterm mission for the organizationan articulation of strategic intent ... This mission becomes translated into specific targets, either internal to the organization (e. g., develop capability) or external (e.g., overtake a competitor), which inspire organizational members to higher levels of achievement .. At Komatsu, for example, the mission is "MaruC" to encircle Caterpillar, its primary rival.” (p. 337)</p>	<p>Multiple organizational members</p> <p>“organizational members” (p.337)</p>
Noda & Bower (1996)	<p>Top management viewpoint on business, ‘corporate context’</p> <p>“Our fieldbased data provide evidence on (1) the role of ‘corporate contexts’ that reflects top managers’ crude strategic intent in shaping strategic initiatives of businessunit managers [...]” (p. 159).</p>	<p>Top management (showing intent in refereeing bottom up ideas)</p> <p>“The top manager’s role in determining strategic context is active, not passive [...] continuous, incremental learning of top managers during business development, and the resulting fine tuning of strategic context shift resource allocation and precede the articulation or change in official statements</p>

		of the corporate strategy.” (p. 188)
Lovas & Ghoshal (2000)	A statement of goals articulated by the top management “By ‘strategic intent’ we mean those longterm goals that reflect the preferred future position of the firm, as articulated by its top management (Prahalad & Doz, 1987).” (p. 884).	Top management “as articulated by its top management” (p.884)

Source: Silince, J. A. Saku, M. (2007). Strategic Intent as a Rhetorical Device, Scandinavian Journal of Management, Elsevier, pp. 13-14.

The strategic vision reflects the concept of management thought business ideas. Based on assumptions and judgments about what will be and what will happen in the market in the future and how to estimate the future state of the market can be best utilized for the benefit of enterprises and its business. Strategic vision is being designed in which the industry of the enterprise business, whether involved in production of one or more types of products, with which materials, technologies and technological processes, will be involved in production, trading or providing services, whether it be the manufacturer of computers, garments or cars and what will be known for, what he will do identity. Vision statement directs the organization in a particular direction, charting a strategic path that needs to step in preparing the enterprise for the future, and shaping organizational identity.

It is very important to trust in the leadership of the enterprise, the top management that creates the vision and plans to implement it, and trust is gained by evaluating their previous results and their vision has to be recognized also as the vision of management at lower levels and other employees. What is the level of discrepancies greater it will take more effort, effort and persuasion to accept the vision, and the best are accepted and easily implement a strategic vision that employees believe that are "true", "to them to be", "to will be the team to achieve their plans, dreams and expectations" and visions that cause similar feelings and moods. In such circumstances, the management at lower levels, and all other employees will be the most motivated and encourage the implementation of the strategic vision and the success of top management is not only measured by the quality of vision, but also convincing the staff in its quality and its motivation for implementation.

Expected changes are included in the strategic vision for the actually planned activities and course of action for enterprises to anticipate permanent changes in the environment. Unexpected and unpredictable changes affect the

strategic vision and cause its correction, change or radical shift which depends on the nature of the changes, but also the quality of management in assessing the assumptions on which it was established and defined strategic vision. Top management is more successful if less should undertake radical changes to its strategic vision and if the new strategic direction, more or less radical than the existing one, maintaining a successful business and avoid the risks of failure, and this can be achieved if timely respond to change and choose good and quality new strategic vision. Timely response to developments in the market reduces the possibility that the enterprise will get stuck in an activity is stagnant or in decline or that they will miss the attractive new growth opportunities.

Mission of the enterprise is not a strategic vision which expresses "future business orientation, direction of movement" and "reasons for this orientation, provides answers to questions "where they are going", nowhere to go" and "why". Mission refers to the existing, current, and provides answers to questions "what or who the enterprise", "the enterprise makes" and "why" is there, but the basic tenets and principles mission enterprises should not be ignored either in determining the strategic vision. And in the near or distant future in which the strategic vision will be necessary to take into account the needs, desires and attitudes of consumers and businesses to implement a mission that will put consumer's first plan, not the profits of enterprises. From that point of no strategic vision can not be good be good and proper if it is not based on the settings of the mission enterprises to be current, desirable, acceptable and good in the period in which it will be given to the strategic vision.

3. STRATEGY IMPLEMENTATION

Strategy implementation is the translation of chosen strategy into organizational action so as to achieve strategic goals and objectives. Strategy implementation is also defined as the manner in which an organization should develop, utilize, and amalgamate organizational structure, control systems, and culture to follow strategies that lead to competitive advantage and a better performance. Organizational structure allocates special value developing tasks and roles to the employees and states how these tasks and roles can be correlated so as to maximize efficiency, quality, and customer satisfaction-the pillars of competitive advantage. But, organizational structure is not sufficient in itself to motivate the employees.

Neither the best strategy implementation can replace its deficiencies and quality, nor could good business results be expected even from the best strategy if it is not conducted thoroughly and properly. Therefore, it is important to recruit all managers and employees of enterprises for those activities, to enable them to participate in the creation and adoption of the same rather than to be pure executors of someone's orders, or obeyers. They must be convinced that this is the best possible strategy. It must be accepted as their own. They must believe that the implementation of the same will enable them - individuals - to realise

their ambitions and expectations. It is impossible, under contemporary market conditions, to maintain satisfactory competitiveness with an unchanged strategy and an equal manner of its implementation, especially if competitiveness should be increased, and the competitive position improved. All this calls for changes. In some cases, minor corrections related to the current situation will be sufficient, and such changes will not provoke opposition and resistance from managers at lower levels, or other employees. Strong resistance is more likely to significant corrections in the present conditions, where radical and drastic changes in the previous practice and behaviour will, however, lead to fierce resistance. The latter may involve a change in the structure of responsible and professional employees' at all organizational levels. Management is therefore responsible for the preparation and implementation of the strategy as it depends on the success of its implementation where the quality of the preparations for the strategy implementation is as important as the quality of the strategy and the quality of its implementation. To implement the strategy, it is important to motivate staff, to have a system of incentives and rewarding, to build organizational culture and to increase business capability of an enterprise.

4. STRATEGIC CONTROL AND CORRECTION

Strategic control is the last step in the Strategy Management Process. It consists of monitoring and evaluating the strategy management process as a whole to ensure that it is operating properly. Strategic control focuses on the activities involved in environmental analysis, organizational direction, strategy formulation, strategy implementation, and strategy control itself – checking that all steps of the strategy management process are appropriate, compatible and that they function properly.

The selected and adopted strategy is based on the assumptions of its creators, and such assumptions are not constant. They change under the influence of various factors affecting the supply, ie. They are the result of rival enterprises' activities in the field of demand. This is all the result of changes in the behaviour of consumers, their needs and capabilities. Changes in the assumptions on which the selected and adopted strategy was based clearly suggest that it should be corrected or changed, and that it should be based on new, different assumptions. Successful management of these activities involves not only a timely reaction to the observed changes, but also predicting and planning the changes to avoid their unexpected and sudden occurrence. Correction strategies are implemented voluntarily when better results and competitiveness are to be achieved, when enterprises increase their capability and when they want to upgrade their operations. Their implementation is also influenced by environmental changes. The correction implies greater or minor changes in the existing strategy, where the strategy essence does not change. When, however, the existing strategy changes, a new strategy of the enterprise is created, and the same can rely on the existing strategic vision.

5. STRATEGIC MANAGEMENT AND ITS IMPLEMENTATION IN THE PRACTICE OF ENTREPRISES IN BOSNIA AND HERZEGOVINA – EMPIRICAL RESEARCH

Bosnia and Herzegovina is in a transition period and in a deep economic crisis. Since the war ended, the state's economy has been for almost 18 years under restoration and revival, and it has not yet reached the pre-war level of development. The bad economic situation is the result of various circumstances and the transition period, and one of the latter is certainly the undeveloped market economy and the conditions under which enterprise management cannot implement its function and perform its tasks. It cannot ensure a successful operation of enterprises or the planned (and expected) financial and strategic business objectives. Successful operations of private enterprises should in the transition period include, from the social and economic point of view, the roles, tasks and responsibilities of management, who is also responsible for the creation and implementation of an effective transition strategy of non-privatized enterprises. The management is also responsible for successful operations in the transitional period in order "to survive", as well as for creating favourable positions for successful operations, according to international market criteria, in the post-transitional period.

The way this task is performed by management in Bosnia and Herzegovina can be evaluated from the results of studies that show significant and important differences with the management in private enterprises and those that have not been privatized. In Bosnia and Herzegovina there are more than 35,000 of private enterprises and other private entities that account for about 40 percent in the GDP, and for more than 45 percent in the employment. They are mainly engaged in trade and non-manufacturing activities. They include a relatively small number of large enterprises with huge capital where most of them can hardly survive". From the managerial point of view, there are three types of private enterprises: enterprises that have been founded as private, enterprises that have been privatized (100 percent), or private enterprises with majority private ownership (partly state-owned), now undergoing the process of privatization and being associated with, justified or unjustified, mainly negative connotations. Significant differences among them are best obvious in terms of making independent managerial business decisions. From this standpoint, the management of the enterprises that have been private since their foundation (one type of private enterprises) is in the best position because it is independent in making decisions on the current operation, in achieving financial goals, in deciding on a long-term operation and strategic goals.

The public perception of the management in enterprises that have been privatized after the privatization process (the second type of private enterprises) is that they acquired ownership in the enterprises in an immoral and suspicious way. For some of these enterprises the reversal of privatization is required, while

in some cases this has been done, which affects the behavior of the management. The management in enterprises with state ownership (the third type of private enterprises) is also in a special position with respect to the management in private enterprises. One cannot dismiss employees at his/her discretion. A proper care should be taken of the employees, taking into account public views and stands of the authorities. Furthermore, trade unions' demands should be better met. It is interesting that the state (public authority) in such enterprises does not want to give up its share (does not want to sell its share). They are not encouraged by employees (unions), who favour such a situation.

In this paper empirical research has been conducted during the 2012. The sample consisted of 300 private enterprises, 100 enterprises that are still in state owned and 100 public enterprises that will remain such also in the future after the restructuring. Respondents were the top managers and members of the CEO in Bosnia and Herzegovina.

As regards the size of an enterprise, it could be concluded that the situation is identical both in small and large businesses with private ownership, with negative public perception of an operation, behavior and influence of large private enterprises. This refers to the relationship between their owners and influential politicians, privileges in obtaining jobs that have been funded by public sources, attractive building sites which can be encashed, concessions for the use of natural and other resources, a failure to pay obligations to public enterprises and the state, illegal and immoral enrichment, overflow of the state (public) money into private hands, abuse of office, great privileges and benefits, the impact on political parties and individuals, and a host of other negatives. Generally speaking, it can be concluded that the management in private enterprises is focused on the present, on the current operating results, while the future is not in the focus of their interest. The management behaves logically, using all the possibilities of the current situation –“the current market” - for achieving business goals. They mainly do “anything that is not expressly forbidden” and that their moral and ethical principles allow them to do, looking for quick and easy earning, seeking out opportunities to avoid tax payment and other liabilities. A number of enterprises and their owners become rich by avoiding payment of liabilities, and their wealth is associated with unlawfulness, profiteering and other negativities, which all creates the impression that wealth is considered a sin. That is not good as it can inhibit economic development and discourage those who realize good operating results in a legal and moral manner, in accordance with international market criteria. As for the selection of business partners they do business with, or would like to co-operate with, more than 90 percent of the respondents prefer to work with state-owned enterprises rather than with private, and the reason is greater security of collecting receivables (voted by 83 percent), this problem being particularly actual in the period of illiquidity. Another, even bigger, reason why private enterprises prefer doing business with government and public enterprises is the possibility of higher earnings, for which 94 percent of the respondents voted. From the market standpoint, private trade

enterprises are engaged in import due to an extremely low and inadequate supply of products on the domestic market (which does not allow for any dealings or earnings). Export programs are, however, considered by only eight percent of respondents, those engaged in production activity.

Management in private enterprises has no impact on the privatization of non-privatized enterprises and cannot speed up this process. If privatization is not thoroughly carried out, there can be no dominance of the private sector over the public sector. There can be no market economy, nor can private enterprises have a position such as private enterprises have in developed countries. The management in state and public enterprises is the management in non-privatized state-owned enterprises, which are to be privatized and public enterprises of which the majority will retain the same status after privatization. Of the total number of such enterprises in Bosnia and Herzegovina (1,254, with an estimated 19.3 billion in assets), very few of them have been privatized, and of the 84 largest enterprises, with 60 percent of the totally estimated capital, not any one has been privatized so far, nor are there any indications when this might happen. Management in these enterprises is responsible to the board of directors appointed by government authorities and is actually not responsible for the success of current operations, except morally. The management is not stimulated for better business results nor will it be awarded, unlike the management in private enterprises, but it will not bear any consequences if the enterprise does not achieve good business results. They can not even think of the enterprise's future operations, as these issues are reserved for future owners of enterprises, and it is unlikely that the new owners will retain the existing management after taking over the enterprise. With regard to the privatization of enterprises, current management has no responsibility for this process. It is interested in privatization only if it can benefit from privatization, and it influences the acceleration or slowdown in accordance with its personal interests. Otherwise, the management is more interested in maintaining the "status quo". Therefore, a very pronounced and negative public opinion prevails about the behavior of management in these enterprises. If the management advocates and supports the process of privatization, 91 percent of respondents think that they do so because of their personal interest, or they think that they will become co-owners of the enterprise, or that the new owner will pay them for it. If the management does not support the privatization process, if it does not accelerate that process, it does so, according to the public opinion, because it suits them (87 percent), that they benefit from it (73 percent), that they do not want to lose their positions (86 percent), or that they are waiting for a price reduction so that they, or their acquaintances, can privatize the enterprise at lower prices (62 percent of respondents). Given that state, nobody is willing to finance non-privatized, state enterprises until the process of privatization has been implemented. It is therefore quite clear that such enterprises cannot operate successfully even in the current situation, and that they have no prospect in the future unless they undergo privatization.

The situation with public enterprises that can get loans guaranteed by the state is different, but the management in these enterprises behave almost identically as the management in non-privatized state enterprises. They endeavour to maintain the current situation in order to retain the power and positions they have.

When current business results are considered, the management in private enterprises is better stimulated for achieving good business results, but it also has greater financial responsibility. The management in the enterprises that have been founded as private enterprises is, however, best stimulated and interested in successful operations and development of the enterprises. The management is less stimulated in the enterprises that have been privatized in the privatization process.

The management in non-privatized enterprises show a lower interest in good business results as their rewards will not be equal to those in private enterprises, and their management responsibility is only moral.

When preparing the ground for successful operations in the post-transitional period, almost no difference in the behavior of the management can be observed. In private enterprises, 97 percent of the respondents said that they did not think about the future, that they were interested only in the present and the opportunities they were provided with. In non-privatized enterprises the management does not even think about it as they are aware that such issues will be the responsibility of the future owners.

The implementation of the privatization process does not show any difference in the behavior of the management in private and state-owned enterprises as there is no responsibility or interest in it, and it could be concluded that they endeavour to maintain the status quo rather than to change it. This leads to the conclusion that the existing management in enterprises in Bosnia and Herzegovina is unable to implement its tasks in the transition period; it shows no interest and has no responsibility for it. Therefore, such a situation must be urgently changed, while the transition and privatization processes need to be accelerated. This is, however, the responsibility of those in power if they care about building a democratic society and market economy.

How the authorities care about the transition and privatization can be easily assessed from what has been done in this area and it is not much. The above issues dominate in election campaigns when political leaders give a pledge that the transition process will be accelerated and privatization implemented a democratic society and market economy built, that Bosnia and Herzegovina will join NATO and the EU. However, their current results suggest that nothing has been done, i.e. that the country has been governed in the opposite direction all the time. In the past decade, not a single enterprise has been privatized, while state shares have not been sold in any enterprise majority private ownership, although significant budget funds are allocated every year for employees' salaries and other levies. What's more, the budget deficits keeps increasing and has been, for a

longer period of time, rehabilitated through borrowings abroad, which will affect economic development in the longer run. This will lead to an increase in taxes and other levies, which will be an additional burden to the business, and will discourage investments in economic development. Many reasons influence the slowdown in the implementation of transition and privatization. In some cases a wrong belief prevails that transition could be implemented without privatization. On the other hand, a fear of changes and uncertainty accompanying such changes is always present. Failures made in the course of privatization are also used as the reason for a slowdown in these processes. One of the reasons for slowing down the process of transition and privatization is that the current situation suits influential groups and individuals who dispose of state funds and property, and do not want to lose those positions and power. They prefer the undeveloped social and economic system as they can, being protected by political leaders – individuals or parties – do whatever they want without suffering any consequences. Privatization is a prerequisite for the transition as market economy where state-owned enterprises dominate cannot be introduced. The process of privatization requires that economic-development rather than social aspects prevail. Non-privatized enterprises should not be grouped according to the principles of social justice, eventually leading to the ideal distribution of poverty, which nobody would benefit from, nor should such enterprises be redelegated to the people who do not care about business but focus on the profit from the resale of assets of these enterprises. The optimum results would be achieved if non-privatized enterprises could be handed over to business people, who would offer market-friendly programmes for the survival and development of such enterprises, and guarantee job security.

6. CONCLUSION

The research results clearly show that management of enterprises in Bosnia and Herzegovina is not able to implement its tasks in the transition period, that it is not interested or stimulated, and that it bears no responsibility for that. Therefore, this situation calls for an urgent change, it needs to accelerate the process of transition and privatization, and it is the task of those in power if they care about the creation of a democratic society and market economy. Privatization should be accelerated to allow the dominance of private property, to privatize enterprises with state ownership that cannot survive in the market to eliminate the “grey economy” and prevent evasion of payment of liabilities. These are the prerequisites for the creation of conditions under which the success of the management and their enterprises measure by the criteria of competitiveness prevailing in the international market, avoiding illegal employment. The wealth of enterprises and individuals will, in such circumstances, be a symbol of efficiency, competence and competitiveness rather than unfairness and greed. These processes should be created and implemented by the holders of state

authorities who, so far, have done almost nothing in this respect except declaring themselves.

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COMMUNICATING TOURISM EVENTS

JEL classification: L830

Abstract

Preferences of contemporary tourists are oriented towards an integrated tourist product which will not only meet, but also exceed their expectations. The tourist offer anticipated these demands by offering tourism events whose basic purpose is to create a unique experience. The basic problem in the realization of an event is communication of the event to targeted demand. The objective of the paper is finding a potential model of successful communication of tourism events in tourist destinations. The subject of analysis in the paper are the most important elements which are framework of strategic decision-making in the forming of tourist offer, as well as benchmarking analysis of tourist destinations of Opatija and Tarragona. Proposal of optimal and effective communication channels on the tourism market is based on the conducted analyses. Scientific methods of analysis and synthesis, historical, statistical methods, methods of comparison and methods of induction and deduction are used in the paper.

Keywords: tourism of events, communication, destination product

1. INTRODUCTION

The primary aim of this research was to find a potential model of successful communication of tourism events in tourism destination. For the purpose of the paper two tourist destinations will be analyzed, Opatija and city of Tarragona. The focus of analyses will be their communication of tourism events with the tourist demand. Tourism is the fastest-growing global economic sector which develops much faster than other sectors, regardless of all the economic changes conditioned by the world economic crisis. Thanks to its complexity and permeation with many other economic branches, tourism needs to constantly adapt to the new trends in order to realize the most important motive of tourists' satisfaction, which is experience. Tourism of experience, as it is called by Getz (Getz, 1997, p.16) is described as planning, development and marketing of tourism events in the form of tourist attractions whose primary task is to maximize the number of tourists as a participant in tourism events as a form of primary or secondary tourists' motives. The basic problem in the realization of tourism events is communicating the events to the target demand. Russo and Borg (2002) point out that attraction of tourism events primarily depends on planning of the very event, but also on its promotion and interpretation, which point out the significance of the communication process which unfolds between tourism event management and the potential tourist demand. The process of communication and interaction with the visitors already starts at the origin of the travel (Russo and Borg, 2002, p. 634). This confirms the theory that good planned communication of tourism events is very important for a successful development of tourism destination.

2. COMMUNICATING TOURISM EVENTS IN A TOURIST DESTINATION

A precisely created communication plan of tourism events taking place in a tourist destination is the only true path to success considering the fact that one of the main tourists' reasons for travelling is fulfilling their need for experience. Destination management must overcome three key problems (Laws, 1995, p.123) in the communication system with the tourist market:

- Large spatial gap on the tourist market from the potential tourist supply to the tourists,
- Cultural differences among tourists, which are a relatively unknown concept to destination management,
- Insufficient focus on communication towards market segments with potential tourists in a tourist destination.

The solution to these problems may be found in different structures of communication- and distribution methods which will enable the right information

to reach even the farthest target groups of tourists. It is important to make a distinction between the form of communication in which a tourist destination may influence tourists' decisions, and which segments may have an impact on their decisions (Chart 1).

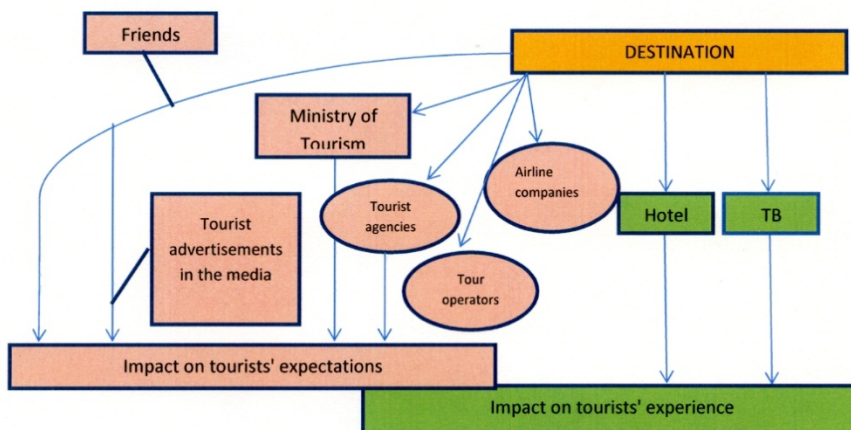


Chart 1. Graphic Display of Communication of a Tourist Destination and the Impact on Tourists' Expectations and Experience

Source: Adapted according to Laws, E., 1995., p. 123.

In the communication towards the tourist demand, a tourist destination covers two segments each tourist is interested in; expectation, a product of creating an idea of a tourist destination and the very experience of a tourist destination. Communication channels like tourist advertisements in the media, tourist agencies, tour operators, etc. have an impact on tourists' expectations, while tourists' experience is influenced through communication channels of hotels and tourist boards. The presentation and analysis of tourist trade in the town of Opatija and the Spanish town of Tarragona follow in the paper. A benchmarking analysis is also conducted, on the basis of which guidelines are adopted for organization of successful communication of tourism events in a destination.

3. ANALYSIS OF THE TOURIST DESTINATION OF OPATIJA

The tourist destination of Opatija has been recognized by tourists since 1844, when the first hotel was built. Opatija's tourist tradition is indisputable. All the elements of a modern tourist product were developed through its 170 years of continuous tourism activities. Opatija is one of the most renowned and oldest winter resorts, but also summer bathing resorts on the Mediterranean. Tourism development in Opatija as a tourist destination is based on the following preconditions:

- A long tourist tradition,
- Vicinity of emitive European countries,
- Exceptional natural characteristics of a Mediterranean destination,
- A great number of accommodation facilities,
- Significance of Mediterranean tourist destinations in world tourist developments,
- Predicting the growth of the tourist trade in the Republic of Croatia.

It is pointed out that Opatija's tourist reputation largely stems from successful communication which unfolds daily between Opatija's tourist supply and tourist demand. The concept of modern tourists is complex and preoccupied with all the aspects of the tourist supply which tries to adapt to the latest trends. The question is posed: how successful, and in what manner. Research indicate that modern tourists are exceptionally sophisticated, self-confident, that they recognize „value for money“ and that they are in constant search for experience. However, the secret of any successful tourist destination is in the offer of special experience which the tourist will recognize as interesting and worth of his attention. Opatija, as a tourist destination, has so far attempted to successfully fulfill the demands of its tourists who are searching for historical and artistic programs and natural beauties, and it is now facing a new demand – provision of an extra experience. Tourism events are elements which add a note of recognisability to any destination, under the assumption that these tourism events are communicated to the target tourist group in a successful manner. As a town of rich tourism history, Opatija selected the best elements in the creation of the supply of tourism events which complete the image of a tourist destination with a rich tourist supply. Statistical indicators support the above-mentioned theory and indicate an important role of Opatija in total tourism of the Republic of Croatia. Indicators of the structure of arrivals and overnights in the town of Opatija are presented in the following table.

Table 1

Structure of Arrivals and Overnights in the Town of Opatija





































Year	Arrivals			Overnights		
	Total	Domestic in %	Foreign in %	Total	Domestic in %	Foreign in %
2005	288.852	23,4	76,6	1.034.552	18,2	81,8
2006	317.025	25,7	74,3	1.069.522	18,9	81,1
2007	329.045	24,0	76,0	1.069.303	18,1	81,9
2008	337.468	25,4	74,6	1.094.353	19,1	80,9
2009	323.545	22,2	77,8	991.055	17,3	82,7
2010	331.383	19,5	80,5	1.024.347	15,6	84,4
2011	340.385	17,8	82,2	1.055.539	13,7	86,3

Source: Project 365 DAYS OF THE RIVIERA, Cerović et al., 2011, CBS 2012

The data indicate recognisability of the town of Opatija as a tourist destination by foreign tourists who have been recording notable increase in tourist arrivals and overnights year after year. Taking into consideration exceptionally favorable tourism results, it may be concluded that Opatija, as a tourist destination, undoubtedly has a quality tourist product, and it is important to point out that elements of this tourist product are diverse and complex, comprised of a series of different elements which fulfill the sophisticated tourists' needs. Some of the tourist products which are the basis of Opatija's tourist supply are presented in the following table.

Table 2

Opatija's Tourist Product

PRODUCTS	AVAILABILITY	DEVELOPMENT	SIGNIFICANCE	POTENTIAL
THE SUN AND THE SEA > Six beaches with the Blue Flag; > Attractive beaches				
CONFERENCE/BUSINESS TOURISM > Hotel's conference facilities; > Founded Conference Office and planned building of a Conference Centre				
HEALTH TOURISM/WELLNESS > Hotel wellness offer and thalasso-wellness centre; > Doctor's /dentist's offices				
CULTURAL TOURISM > Attractive architectural heritage; > The first Museum of Tourism; > Numerous cultural events; > Popular events				
NAVIGATION > ACI Marina Opatija (345 berths) and the Marina of the Hotel Admiral (200 berths); > A few regattas				
HIKING AND WALKING > Offer of the Učka Nature Park; > 12 km long coastal walkway				
Legend:	Availability  high  medium  low	Development  fully developed product  developed product  partially developed product	Significance  primary attraction  secondary attraction  tertiary attraction	Potential  high  medium  low

Source: Kvarner: Strategic Marketing Plan of Tourism 2009-2015, Kvarner Tourist Board, Institute for Tourism, Zagreb, 2008, p. 9

In the presented table, tourism events are mentioned in the segment of cultural tourism. According to the research, they are characterized as a form of a tourist product with a high degree of availability and with satisfactory development. They stand out as a primary attraction with a high degree of potential development.

The question is, if there are relatively favorable preconditions for the forming of a tourist product in the form of tourism events, why is this form of tourist supply not recognized by the majority of the tourists which choose the town of Opatija for their holiday destination? Tourism events in Opatija are not the primary motive of tourists' arrival to the destination, which could be a disadvantage at a time when the tourist demand surpassed the tourist product which consists only from „the sun and the sea“ offer.

In order to analyze tourism framework of the town of Opatija in more detail, basic tourist indicators will be analyzed with the purpose of a more integral

collection of information which are the basis for the benchmarking analysis of the towns of Opatija and Tarragona. This will also be the foundation on which potential solutions will be proposed in the conclusion, as well as proposals for improvement of the current tourist supply of the town of Opatija.

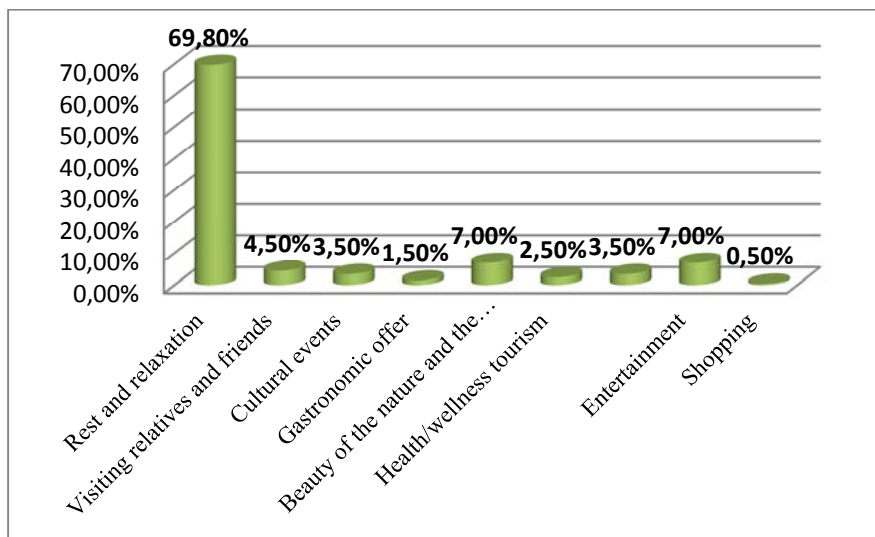


Figure 1 Analysis of the Motives of Tourists' Arrivals to the Town of Opatija

Source: *Project 365 DAYS OF THE RIVIERA*, Cerović et al., 2011

Analyzing the motives of tourists' arrivals to Opatija, it is evident that the predominant motive of tourists' arrivals is rest and relaxation (69,8%), and tourism events, especially cultural tourism events as a motive for tourists' arrivals, are ranked equally with business- and conference, and health/wellness motives. Opatija has numerous possibilities for branding these tourist segments through the promotion of communication with tourists, all with the objective to improve tourism results in the destination.

Analysis of the basic secondary motives of tourists' arrivals to Opatija indicated the conclusion that entertainment is on the fourth place, while cultural events take the fifth place on the scale of all the motives to visit Opatija, which is unsatisfactory. Over the long term, one of the most important tourism trends is ignored by Opatija's destination management. Opatija's destination management does not have a problem with lack of historical attractions or programs; the problem is rather insufficient and inadequate communication of the tourist supply of the town of Opatija to the tourist demand.

Analysis of the sources of information on the supply of cultural tourism events results in the indicators presented in Figure 2.

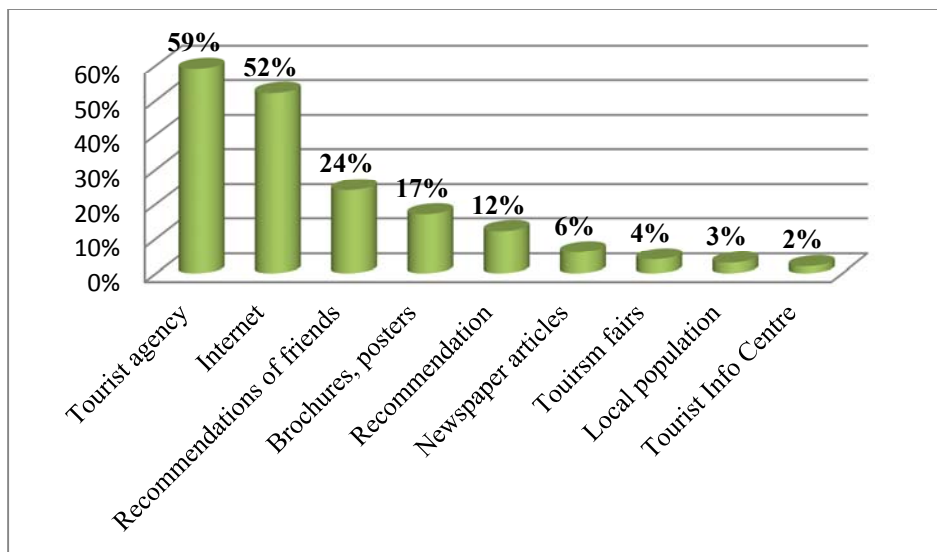


Figure 2 Sources of Information on Cultural Events in Opatija

Source: *Project 365 DAYS OF THE RIVIERA*, Cerović et al., 2011.

The analysis of the Figure implies the conclusion that a large percentage of communication between tourists and tourism events unfolds via tourist agencies, the Internet, through friends' recommendations, tourist brochures and posters. These communication channels are the source of creation of tourists' expectations. Tourists come to Opatija with the previously created image of the tourist destination, but it is questionable whether they by their arrival realized their desire for experiencing the destination. Statistical results for communication channels which should enable creation of tourists' experience are, according to this research, the lowest when it comes to the local population and tourist information centers (365 DAYS OF THE RIVIERA, Cerović et al., 2011). The question is whether this segment of communication, which was rated the lowest, is the key element because of which tourists do not consider Opatija a tourist destination which ensures the desired effect of stay in the destination through cultural tourism events, which constitutes experience.

4. ANALYSIS OF THE TOURIST DESTINATION OF TARRAGONA

The Mediterranean town of Tarragona is located in the Northeast coastal area of Spain in the county of Catalonia. The town of Tarragona has 134,000 inhabitants, pleasant climate with average temperature of 17 °C and 2,770 sunny hours yearly. Tarragona is one of the leading towns in the county of Catalonia in terms of economy, in the industrial and service sector. The most important characteristic of the town of Tarragona is its orientation to science and research which is manifested through numerous universities and institutes whose headquarters are located in this area.

According to the research which will later be presented in more detail, the rich university history will play the main role in the forming of the brand of this tourist destination. Also, contents of tourism events are adapted and significantly based on conference- and research facilities. The town's cultural segment should also be taken into consideration, because Tarragona was proclaimed the place of exceptional cultural heritage, because a large part of the town is under direct protection of the UNESCO. This proves Tarragona's uniqueness as a cultural destination which is skillfully complemented with gastronomic and modern commercial facilities which guarantee great satisfaction of tourists.

In order to gain a better insight into tourism results of the town of Tarragona, several key tourist indicators are presented below. The structure and the number of accommodation facilities in the town of Tarragona are presented in the following table.

Table 3

The Structure of Accommodation Facilities in the Town of Tarragona (Number of Beds)

HOTELS/stars	2009.	2010.	2011.
1	119	119	106
2	280	280	224
3	954	954	954
4	1.497	1.097	1.097
5	0	26	0
TOTAL	2.850	2.476	2.381

Source: Data processing according to www.idescat.cat [03/12/2012]

The analysis of the number of beds according to hotel categories verifies the fact that the town of Tarragona's primary focus is on tourists of medium and

high category of income, considering that, in the accommodation facilities structure, the predominant hotels are three-star and four-star hotels, while in 2011 there are no five-star hotels. Tarragona builds its target segment on the fact that it is a university science center, rather than on development of elite tourism. The number of tourists and overnights in Tarragona are presented below.

Table 4

The Number of Arrivals and Overnights of Tourists in Tarragona

	2009		2010		2011	
	Tourists	Overnights	Tourists	Overnights	Tourists	Overnights
Hotels	236.738	466.846	191.508	423.727	202.571	440.076
Camps	149.250	599.887	237.237	673.765	202.196	662.893
Total	430.988	1.046,733	428.745	1.097.492	404.767	1.102.969

Source: Tarragona in figures, Tarragona City Hall, 2012

In its statistical reports, the Town Administration of Tarragona systematically follows hotel occupancy, but also camp occupancy. Because of the particularities of the tourist offer, camps are especially significant in the structure of accommodation facilities. Tarragona realizes impressive tourism results, but it can still be pointed out that, because of the general situation, Spain is currently in a bad situation in national terms, i.e. in an extremely unfavorable economic situation, which resulted in the state of general discontent of the population, the sense of security has been significantly compromised, which probably reflected on somewhat poorer results in 2010. However, the proof that tourism is not affected by the global crisis, but rather the opposite, that it records progressive growth, is also indicated in the figure from which it is evident that, in 2011, Tarragona again recorded an increase in tourists' arrivals.

Analysis of the motives of tourists' arrivals to the destination of Tarragona identifies success of the communication with the tourist market. The following figure shows that the primary motive for tourists' arrivals to Tarragona is tourism, followed by travelers whose main motive for arrival is acquiring new knowledge and education.

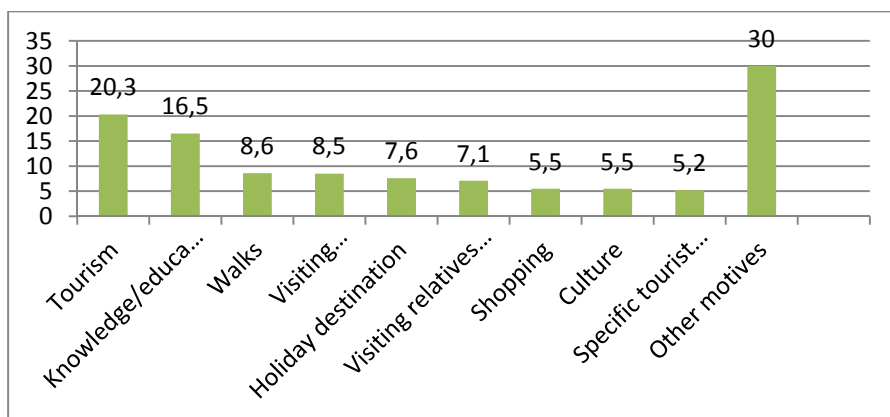


Figure 3 Analysis of the Motives for Tourists' Arrivals to Tarragona

Source: *Caracterització de la demanda turística, Marc – Setembre, 2011*

The most important thing to be pointed out in this tourist destination is the percentage of motives which are exclusively related to cultural and tourism events which, when they are summed up into a whole, amount to the high 11%. It may be concluded that the motive for arrival to the destination of Tarragona for a large number of visitors is visiting a tourist event, or another form of cultural events.

In accordance with the subject of the paper, some of the analyzed tourism indicators are conditioned by information sources by which tourists decided to visit Tarragona.

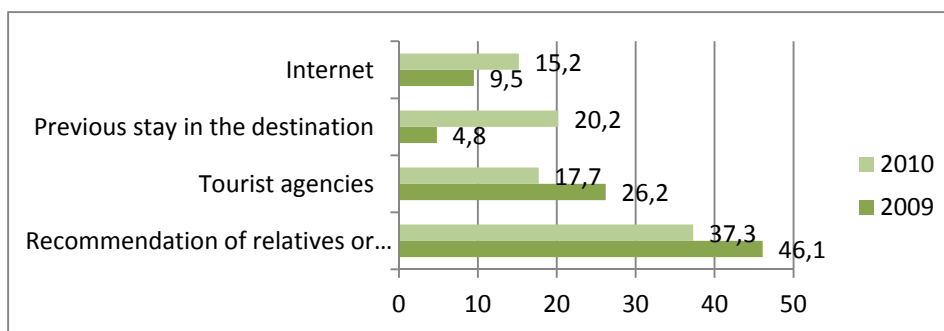


Figure 4 Figure 4. Sources of Tourist Information on Tarragona

Source: *Caracterització de la demanda turística, Marc 2010 - Febrer 2011*

The basic communication tools in the system of receiving information have drastically changed. Relatives and friends, or tourist agencies are no longer frequent sources of information; the Internet and impressions the tourists had acquired during one of their previous stays in the destination have become more represented.

This very turning point in the trends of using communication channels may be significant for future tourism development in certain tourism segments. Communication forms which record growth are subject to manipulation and the tourist destination may define which elements of the tourist offer it will communicate more intensely to the tourist market, and which with less intensity.

According to all of the above, it should be pointed out that the tourist destination of Tarragona has been communicating its tourist advantages to the tourist market in a rather quality manner, placing the focus on its valuable cultural and historical heritage, and the long tradition of university town which still works on systematic promotion of its university values and quality.

5. BENCHMARKING ANALYSIS OF TOURIST DESTINATIONS OF OPATIJA AND TARRAGONA

According to the conducted research, some global common determinants of these tourist destinations may be set, which are:

- Characteristics of Mediterranean towns,
- Similar climate and natural conditions,
- Richness of historical and cultural heritage,
- Rich tourism tradition.

Particularities of tourist destinations of Opatija and Tarragona are defined in the following table in order to get a clearer idea of their possibilities for future tourism development.

Table 5

Particularities of Tourist Destinations of Opatija and Tarragona

OPATIJA	TARRAGONA
Rich tourism history History of development of health- and beach tourism Rich cultural resources (musicians, painters, poets, writers)	Rich scientific university history Significance of historical archaeological localities and buildings Possibility of development of sports resources (host of the Mediterranean Games 2017)

Source: Author's analysis

Regardless of all the similarities on the macro-level, tourism in these tourist destinations is not equally developed. The benchmarking analysis of the town of Opatija in comparison with its best competitor, the town of Tarragona, is presented below.

Table 6

The Benchmarking Analysis of Opatija and Tarragona

DESCRIPTION	Town of Opatija	Town of Tarragona
Number of inhabitants	11.659	134.000
Number of beds	5.609	2.381
Number of tourists	340.385	404.767
Number of overnights	1.055.539	1.102.969
Location	The Bay of Kvarner	Northeast coastal area of Spain, County of Catalonia
The most important characteristic of the destination	Long tourist tradition, cultural and health tourism	Cultural tourism (UNESCO), scientific research center
Motives of tourists' arrivals (according to rank)	1. Rest and relaxation 2. Cultural programs 3. Business and/or conference	1. Knowledge and schooling 2. Walks 3. Cultural facilities
Sources of tourist information (according to rank)	1. Tourist agencies 2. Internet 3. Recommendations of relatives and friends 4. Brochures and posters	1. Recommendations of relatives and friends 2. Tourist agencies 3. Previous stay in the destination 4. Internet

Source: Author's analysis

Taking into consideration the number of beds and the number of accommodation facilities in general, which is significantly higher in Opatija than in Tarragona (Opatija 5,609, and Tarragona 2,382 beds), Opatija is still in an unfavorable position. Maybe the problem lies in the disorganized destination management which is not synchronized with the possibilities and capacities of tourism development, or the problem of insufficient tourism development lies in inadequate communication on the tourist market. As stated above, successful communication is only the communication intended for the target segment of the tourist demand which reaches the end user at the right time and in the right manner.

The question is whether Opatija as a tourist destination recognizes the tourism segment and the target group it addresses through the communication channels. The tourist destination of Tarragona has skillfully combined its entire

historical heritage in order to place the best elements of its tourist supply on the market, thanks to successful communication with the tourist market, by constantly developing all the accompanying facilities which support the basic elements of the supply. This implies building of infrastructure, transport links, availability of information. Tarragona became a branded and recognizable tourist- and scientific university center. Which are the particularities on which the tourist destination of Opatija should build its tourist offer?

The segment on which Opatija should base its future tourism activities could be the long, history-rooted tourism tradition. When World War I began, Opatija had about a dozen sanatoriums and some thirty physicians, with kings, emperors, composers and writers entered in the guest books, with a perfect infrastructure and a reputation as one of the most superior European health resorts (Mzur, 2000, p.15). The exquisite beauty of the current infrastructure should be only one of the elements which will be integrated into building of communication with the tourist market. The fact remains that destination management of Tarragona had recognized the possibilities and significance of quality communication with the tourist market long before Opatija, and used the communication for increasing tourist trade in its destination.

Also relevant is the fact that the tourist destination of Tarragona realizes a part of its communication with tourists through branded tourism events, which are a kind of a brand. On the basis of branded tourism events, through skillfully composed communication channels and tools, they also presented to the potential tourists all the other forms of Tarragona's tourist supply. Tarragona achieved its greatest communication success because of the use of historical resources under the protection of the UNESCO. In this way, they created a recognizable image of the tourist destination on the global tourist market.

Opatija, however, has significant advantages which may be of great importance for future tourism development provided that they are used in the right manner. Unlike Tarragona, Opatija needs relatively small investments to become an interesting „new“ destination to the target group of tourists, because insufficient communication, which was previously non-existent, may be transformed into a positive effect of „something new and yet unknown“, but provided that all future communication activities are implemented strategically, in a planned manner, and with a detailed, elaborated scenario for a longer period of time.

6. GUIDELINES FOR ORGANISATION OF SUCCESSFUL COMMUNICATION OF TOURISM EVENTS IN A DESTINATION

According to all the world trends, some of the most desirable tourist destinations are Mediterranean destinations which, because of their favorable climate- and landscape characteristics, correspond to the needs of modern tourists

who want to combine favorable healthy elements and the beauty of nature. Because of the contemporary, stressful way of life, tourists want to devote attention to their health and healing during their travels, both psychological and physical. The new tourists', „explorers“ need to satisfy their „hunger“ for new knowledge in the segments of history, cultural heritage, and local customs should not be neglected.

These are favorable incentives for development of the total tourist supply of Opatija, and also for defining a successful communication strategy which will take place on the tourist market. In its historical origins of tourism, Opatija started building an image of a health center tourist destination, which is an element on which Opatija can again build its tourism development. However, this form of development must be in accordance with the current trends and demands of the tourist market. Combining the offer of tourism events as a framework for culture and entertainment with the elements of history and tradition which will serve as an extension of the primary health motives, it works as a possible positive solution for the tourist destination of Opatija. It is important to point out that this form of tourism development fulfills all the necessary criteria, natural and climatic characteristics, infrastructure and adequate human resources. The basic problem is lack of professionally managed developmental strategy, its design, implementation and, ultimately, communication to the tourist market. These elements are definitely not the only ones necessary for development of a tourist destination; emphasis is again placed on the „extra experience“ which tourists seek, and which can be achieved only through additional elements of the tourist supply, i.e. through tourism events. According to the above-mentioned research, it is evident that, when tourists arrive to a tourist destination, regardless of their primary motive of arrival, they gladly attend tourism events in any form – cultural, entertaining, historical, sports, etc. From the aspect of communication, there is a significant influence of modern information technologies which have a great impact on tourists' decision-making in choosing their tourist destination. Adequate implementation of information technologies in the communication systems will also create, and point out a brand of a certain tourism event on the potential tourist market, or the brand of the tourist destination, which provides the possibility to realize favorable tourism results.

In the process of defining communication forms, it is important to include all the elements of the tourist destination which are necessary in the making of strategic decisions. These strategic decisions include market segmentation, selection of the target market, and positioning on the tourist market.

Local population is the most important link in the communication chain towards tourists, especially when it comes to tourism events. Local population, by participation in the traditional tourism events, has the role of a living catalyst of positive communication of an individual tourism event and the tourist destination.

The offer of cultural tourism events is one of the strategic objectives of the tourist supply of the town of Opatija. Therefore, it is desirable to follow best practice examples which have proven that tourist experience is especially noticeable through participation of the local population in such a form of the tourist supply. For successful positioning on the tourist market, it is necessary to continuously expand, diversify and qualitatively improve the offer adapted to any individual tourist on the basis of qualitative changes in the destination management and the new system of values based on knowledge and synergy in the building of an integral product of the destination.

7. CONCLUSION

The subject of this paper is significance of communicating tourism events for achieving success in tourist destinations. For the purpose of the paper, the research was conducted in which the subject of analysis were tourism indicators of two tourist destinations, towns of Opatija and Tarragona. The objective of the paper is to point out the significance of communication of tourism events as agents of success of a tourist destination. Also, guidelines are proposed for organization of more successful communication of tourism events in the destination.

Branding is stated as one of the possible forms of successful communication, since the conclusion may be derived from the conducted research that recognition of the brand is the key factor of selection of the destination.

The benchmarking analysis of Opatija and Tarragona is presented in the paper. The analysis of tourism indicators of the town of Tarragona indicates that the entire tourist supply is based on strategic decisions on communicating the town of Tarragona as a cultural-historical and scientific-educational center. Tourists recognize the town of Tarragona as a tourist destination which, by its rich tourist facilities, guarantees fulfillment of tourists' needs for experience.

The town of Opatija, despite its natural and climatic similarities to the town of Tarragona, cannot match this successful tourist destination in terms of tourism. Rich tourism history and strong resource base are not sufficient elements of development of a successful tourist offer in the town of Opatija. The problem may be identified in the lack of vision and in the undefined strategy for which is responsible destination management of the town of Opatija. According to the research, all the indicators imply that tourists consider Opatija a destination favorable for holiday and relaxation, but that this destination does not sufficiently provide the feeling that their needs are fully satisfied. It cannot be concluded that the problem lies in the insufficient number of additional facilities. According to the research of the tourist supply (365 DAYS OF THE RIVIERA, Cerović, 2011), Opatija has a rich offer of tourism events, but the problem seems to be inadequate communication of additional facilities to the tourist demand.

Research analysis indicates that the main differences are in the habits of tourists who visit the towns of Opatija and Tarragona, in the manners and forms of dissemination of information regarding the destination. Tourists mostly visit the destination of Tarragona because of recommendations by relatives and friends, while tourist agencies and the Internet are on the second and third place. Tourists who visit Opatija state that their first form of receiving information are tourist agencies, followed by the Internet, and recommendations and other communication channels. It is necessary to recognize the advantages which the town of Opatija can use in this segment. Global use of modern information technologies provides the possibility to improve communication of tourism events of the town of Opatija on the tourist market.

In order to achieve successful communication of tourism events, it is necessary to recognize the advantages of the tourist destination which make it more interesting than others. Elements should be selected which can, through communication of the brand, be communicated in a quality manner to the target segment of the tourist demand. An important factor for successful communication of tourism events is also co-operation of destination management with the local population, which contributes to more intense tourists' experience of the destination.

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IMPROVING CONSUMER PROTECTION ON BANK MARKET

JEL classification: G21, G28

Abstract

Consumer protection within a broader area of social responsibility and ethics in banking has recently been attracting increased interest of researchers and professionals. The global financial crisis, which started in 2007, has put consumer protection under great scrutiny by initiating changes in behavioural patterns both of banks and consumers. Besides being an ethical question, consumer protection is also an important social and political question, usually appearing together with excessive problems, significant for financial stability as well.

The aim of this paper is to investigate problems in bank consumer protection in Croatia both from regulatory and from practical aspect, and planned solutions for detected problems, as well as to analyse examples found in developed countries. Qualitative methodology is applied in the research, based on in-depth interviews with subject matter experts. By studying practical solutions for consumer protection on a global level, particularly focusing on the USA and Western European countries, the

paper proposes the best practice of consumer protection applicable in Croatia.

Keywords: consumer protection, financial services, social responsibility

1. INTRODUCTION

The protection of consumers-users of financial and banking services is the foundation of an efficient and fair financial system. It refers to clients' rights to true, timely and understandable information prior to using financial services, as well as access to efficient and economical protection mechanisms. Consumer protection is closely related to financial literacy (World Bank, 2011). Though consumer protection in a financial system also includes investors, its main task is protection of depositors, according to the practice worldwide.

The importance of consumer protection for financial system stability became more prominent with the financial crisis which caused many problems in the field of consumer protection. Financial stability was significantly undermined due to, among other, consumers borrowing beyond their means, which raised new issues in the field of consumer protection. Consumers and their problems have been in the spotlight across the EU, where the crisis imposed a need for more attention towards consumer protection issue.

Bank consumer protection is still a novelty on the Croatian financial market. The regulator started to deal with this issue more intensely in 2007, which was not the case worldwide. More significant amendments and annexes to the existing laws, together with passing new legislative in the USA and EU, came as a result of the financial crisis outbreak.

The paper consists of five segments. After the introductory part, the second one gives an overview of regulatory frameworks for consumer protection in the USA and EU. The third part gives a detailed development of consumer protection regulatory framework in Croatia while the fourth part analyses specific problems of consumer protection on the Croatian banking market. The fifth part gives concluding remarks.

Different research methods and sources of information are used in the paper. In investigating regulatory framework of bank consumer protection in the USA and European Union, common scientific methods of description, comparison and analysis are used. Research of Croatian context is based on in-depth interviews with subject matter experts. The above mentioned research methods are used in this part of research as well.

2. OVERVIEW OF BANK CONSUMER PROTECTION REGULATORY FRAMEWORK IN THE USA AND EU

Consumer protection regulation was developed in the USA during the 1960s and 1970s (Deutsche Bank Research, 2011, p. 5). The legal framework of bank consumer protection in the USA has undergone dramatical changes and redefining during the current crisis, which spilt from the USA to other financial markets leaving the world economy deeply scared, meanwhile making the improved financial, i.e. bank consumer protection a constituent part of financial regulation in the USA and EU countries. It was exactly the crisis which encouraged re-examining, redefining and tightening not only of financial institutions' regulations, but also of bank consumer protection. Many researches were conducted over the last several years in order to determine potential significance and the impact of consumer protection on minimising financial risks, primarily those caused by imprudent housing loans, inadequate regulation and supervision of granting subprime loans. The main findings (Reiss, 2012, p. 17) point to importance and necessity for consumer protection within the «shadow mortgage banking regulation», i.e. housing mortgage loans and securitization of housing loans.

Financial consumer protection is essential in cases of low financial literacy, inadequate knowledge of complex structural financial products, increased households borrowing, unclear and correct information on market movements, low awareness and inadequate risk taking from the financial consumers. Financial education and financial consumer protection in such conditions contribute to restoring and increasing consumer confidence in the entire financial system with the aim of lowering risk exposure, consequently leading to financial stability. (Rutledge, 2010).

Transparency and information disclosure on financial products and services, together with their prices and remunerations, stricter legal, regulatory and institutional framework for consumer protection, data and privacy protection, consumer financial education, risk knowledge and knowledge of available financial products and services are the best methods for achieving financial consumer protection (Financial Stability Board, 2011, p. 43-45, OECD, 2011, p. 1-7.). Financial consumer protection implies consumer protection from negative consequences of irresponsible management by the financial services provider, if such services are connected with profiteering or fraud (Deutsche Bank Research, 2011, p. 1-2, Rutledge, 2010, p. 1-2).

Consumer protection and financial literacy are significant factors in maintaining financial system stability. They also encourage efficiency, transparency, competition and consumer access to financial service market by reducing the problem of asymmetric information and imbalance of power between the service provider and service user (A Financial Technologies Group Initiative, 2011, p.44). Financial education can be an efficient mechanism for consumer protection, but it cannot replace regulation (Rutledge, 2010, p. 2).

Table 1

Global overview of bank consumer protection regulation

International or national institution	Acts, regulations, directives and recommendations
Bank for International Settlements - BIS	Basel Committee on Banking Supervision, Core Principles for Effective Banking Supervision, September 1997, revised October 2006 Supervisory Guidance on Dealing with Weak Banks, 2002
World Bank - WB	General Principles for International Remittance Services, 2007
United Nations - UN	Guidelines for Consumer Protection
Organization for Economic Cooperation and Development	Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, 1980 Guiding Principles for Regulatory Quality and Performance, 2005 Best Practices for the Formal Exchange of Information Between Competition Authorities in Hard Core Cartel Investigations, 2005 Recommendation of the Council concerning Merger Review, 2005 Recommendation of the Council concerning Structural Separation in Regulated Industries, 2001 Recommendation of the Council concerning Effective Action against Hard Core Cartels, 1998 Recommendation of the Council concerning Co-operation between Member Countries on Anticompetitive Practices affecting International Trade, 1995
FATF – Financial Action Task Force	Forty Recommendations on Money Laundering, 2003 Nine Special Recommendations on Terrorism Financing, 2001 as expanded in 2004
Asia-Pacific Economic Cooperation	APEC Privacy Framework, 2005 APEC Policy Dialogue on Deposit Insurance: Key Policy Conclusions, 2004
EU	Directive on Consumer Credit, 1987/102/EEC, as amended Directive on Credit Agreements for Consumers, 2008/48/EC, repealing Directive 87/102/EEC Directive on Consumer Protection in the Indication of the Prices of Products offered to Consumers, 1998/6/EC Directive on Unfair Terms in Consumer Contracts, 1993/13/EEC Directive concerning Unfair Business-to-Consumer Commercial Practices in the Internal Market, 2005/29/EC Directive on Misleading and Comparative Advertising, 2006/114/EEC Directive on the Distance Marketing of Consumer Financial Services, 2002/65/EC Directive on Payment Services in the Internal Market, 2007/64/EC Directive on Deposit Guarantee Schemes, 1994/19/EC Directive on Protection of Consumers in Respect of Distance Contracts, 1997/7/EC Directive on the Protection of Individuals with regard to the Processing of Personal Data and on

	<p>the Free Movement of such data, 1995/46/EC</p> <p>Commission Recommendation on the Principles for Out-of-court Bodies involved in the Consensual Resolution of Consumer Disputes, 2001/310/EC</p> <p>Communication from the Commission - Sector Inquiry under Art 17 of Regulation 1/2003 on Retail Banking, COM (2007) 33 final</p> <p>Commission Staff Working Document on the Implementation of the Commission Decisions on Standard Contractual Clauses for the Transfer of Personal Data to Third Countries 2001/497/EC and 2002/16/EC, SEC (2006) 95</p> <p>Treaty establishing the European Community (EC Treaty), 1957 as amended</p>
USA	<p>Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010</p> <p>Credit Card Accountability, Responsibility, and Disclosure Act of 2009 (Credit CARD Act of 2009), 2009</p> <p>Truth in Lending Act (TILA), 1968</p> <p>Truth in Savings Act, 1991</p> <p>Check Clearing for the 21st Century Act, 2003</p> <p>Fair Debt Collection Practices Act, 1977</p> <p>Regulation E – Electronic Fund Transfers, 1966</p> <p>Federal Trade Commission Act, 1914</p> <p>Equal Credit Opportunity Act, 1974</p>
UK	<p>Financial Services and Markets Act, 2000</p> <p>Consumer Credit Act, 1974</p>

Source: The World Bank, 2011, Good Practices for Financial Consumer Protection, March, p. 33-34.

The research on a sample of 142 countries confirmed a high level of financial consumer protection. Results show that 118 countries have legally regulated bank consumer protection, with most amendments and changes being made over the last two decades, following the turmoil on the financial market. Consumer protection has been regulated within three acts in 36 countries: Credit Institutions Act, Financial Consumer Protection Act and other forms of regulation, while 45 countries have double regulation of consumer protection - within the Financial Institutions Act and Financial Consumer Protection Act. A detailed overview is given in the chart (A Financial Technologies Group Initiative, 2011).

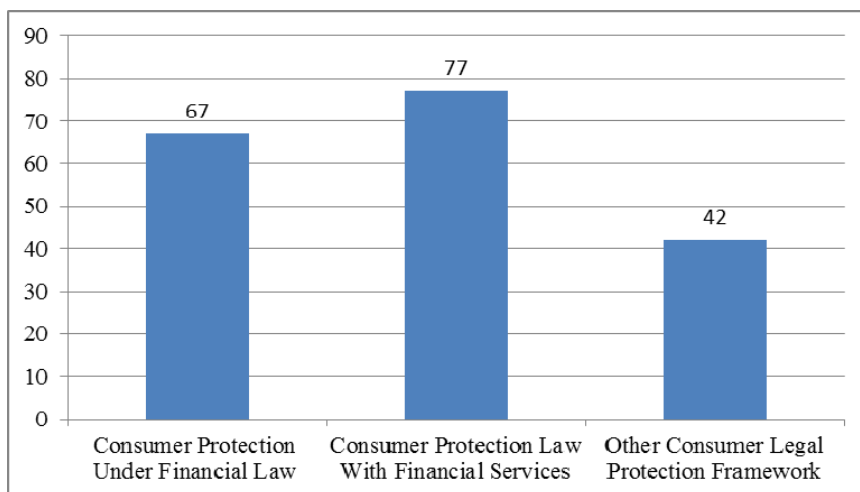


Figure 1 Number of countries and regulation methods for financial consumer protection

Source: World Bank

The Financial Regulatory Reform or Dodd–Frank Wall Street Reform together with the Consumer Protection Act or Dodd-Frank Act were created as a response to the crisis, with the aim of minimising systemic risk (Reiss, 2012, p. 5). The Act tightly regulates financial consumer protection in the segment of «shadow banking», scrutinizing housing mortgage market through: responsible granting of housing mortgages or defining minimum mortgage quality, defining authorised holders for issuing mortgages, obligatory counselling and informing bank clients before granting mortgage credit etc. in order to reduce damages caused by granting subprime mortgage loans and preventing future losses and risk exposure in housing finance by controlling the quality of granted mortgage loans. The Act came into effect in July 2010. The main objective of this Act is to achieve and maintain financial stability of the US financial system through enhancing confidence and transparency lost in crisis due to banks' irresponsible business activities and their excessive risk exposure, knowing they were «too big to fail». This Act aims not only at protecting taxpayers, whose funds rescued the fallen banking system, but also at protecting consumers from ill-intentioned activities of financial institutions and the risk of spill over effect from financial institutions to bank consumers. *Dodd-Frank Act* assumes stricter control of registration and business activities of investment advisors, hedge funds and private equity funds (*Private Fund Investment Advisers Registration Act, 2010*). *Dodd-Frank Act* and the rest of legislature anticipates consolidation of consumer protection regulatory bodies (merging and abolishing 7 existing banking and financial regulators by creating a new regulatory body *Consumer Finance*

Protection Bureau, CFPB or Bureau of Consumer Financial Protection (BCFP) (Financial Stability Board, 2011, p. 6), i.e. creating a supervisory body for assessment and supervision of systemic risk, a comprehensive financial markets regulation, including increasing transparency by trading derivatives on the stock exchange; a new, stricter consumer protection through standardization of «plain vanilla» financial products, more rigid business and supervision standards, enhanced protection of investors on the financial market, defining tools and procedures or crisis mechanisms, which would help the Federal Deposit Insurance Corporation in liquidation of financial institutions due to bankruptcy etc.

Newly established regulatory agencies in the USA are: *Financial Stability Oversight Council (FSOC)*, *Office of Financial Research (OFR)*, serving as a support to FSOC and *Bureau of Consumer Financial Protection (BCFP)*. Suggested changes in the US financial system regulation, with the aim of tightening regulation, also refer to transfer and allocation of power to the existing bodies in charge of financial system regulation: *Federal Deposit Insurance Corporation (FDIC)*, *U.S. Securities and Exchange Commission (SEC)*, *Office of the Comptroller of the Currency (OCC)*, *Federal Reserve (FED)*, *Securities Investor Protection Corporation (SIPC)*.

The emphasis of the new regulation – Dodd-Frank Wall Street Reform and Consumer Protection Act is put on (Financial Stability Board, 2011, p. 43-45):

1. Bank consumer protection through more rigid institutional, legal and regulatory framework; creating a new independent supervisory agency within the FED with the role of ensuring complete information disclosure on all bank products and service to consumers, primarily all aspects of mortgage loans and transparency when calculating interest rates, especially for housing loans, credit cards; complete information disclosure on all other financial products in order to protect consumers from hidden remunerations and commissions, ill-intended mortgage credit conditions (usury rates, interest rate calculation methods, interest rate growth) and other frauds or bad business practice of financial institutions;
2. Ending with the practise of covering losses with the taxpayers' funds due to bad business of large financial institutions using regulation of efficient liquidation of fallen financial giants due to bankruptcy; new capital requirements and possibilities of leverage which should hinder excessive growth of banks; redefining the role of the FED on the financial market; establishing more rigid standards, control and supervision in order to protect financial consumers, investors and create safe environment for financial institutions' business
3. Creating financial crisis early warning systems;
4. Transparency and responsible trade of exotic instruments without their misuse and unregulated trade for: OTC derivatives, ABS, hedge funds,

mortgage brokers etc., new code of conduct, information disclosure and other.

5. Protection of investors on the financial market through encouraging transparency and responsibility of the credit rating agencies when assigning ratings to financial institutions and instruments; insight into scoring when rating creditworthiness; preventing conflict of interest in rating agencies, etc.

Mortgage reform had a special emphasis on: more rigid assessment of credit worthiness of mortgage debtors, with the emphasis on securitized loans; preventing predatory lending which used granting subprime loans; penalizing irresponsible credit granting; additional protection of debtors from «expensive» mortgage credits by limiting maximum growth of interest rates; protection from excessive fees, i.e. protection from high transaction costs and unjustified growth of credit interest rates; counselling on housing possibilities (renting or ownership) in accordance with one's financial possibilities, etc.

Consumer protection on the European market is regulated by the *Directive 2011/83/EU on consumer rights*. The rest of regulation deals with the same problematic as shown in Table 1, with the latest being: *Directive 2008/48/EC on Credit Agreements for Consumers relating to residential property*, *Directive 2009/14/EC on Deposit Guarantee Scheme*, *Directive 2008/48/EC on Consumer Credit*, *the Law on the Payment Services and Payment Systems (2011)*, and a proposal *A Mortgage Credit Directive (2013)*. Similar to legal framework in the USA after the crisis outbreak, these regulations attempt to improve financial consumer protection and financial literacy. The EU has previously regulated financial consumer protection with *Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector*, and with *Directive 2002/65/EC on distance marketing of consumer financial services*.

Although regulatory framework of bank consumer protection in the USA does not represent a direct basis for creating regulatory framework in Croatia (this being the *acquis communautaire*), its understanding is relevant since the USA is the source of both the problems and solutions. The EU has similarly incorporated bank consumer protection within the newly adopted directives.

3. DEVELOPING REGULATORY FRAMEWORK FOR BANK CONSUMER PROTECTION IN CROATIA

The basis for legal framework of financial consumer protection in Croatia are the following acts: *Consumer Protection Act*, *Consumer Credit Act*, *Payment System Act* and *Credit Institutions Act*.

The Consumer Protection Act from 2007 was based on the previously mentioned *Directive on consumer rights*. It does not only refer to bank

consumers, but also regulates general consumer protection, with bank consumer protection being included with regulations on consumer loans. *The Consumer Protection Act* incorporates regulations on protection of consumers' economic interests, protection from life, health and assets hazard, right to legal protection, right to information disclosure and consumer education, right to establish consumers' associations to protect their interests and to represent consumers and participate in the work of respective bodies (*The Consumer Protection Act*, 2007, Article 1.).

Legal framework for consumer protection in Croatia was significantly strengthened by the *Consumer Credit Act* in 2009, based on *Directive on Consumer Credit* in the jurisdiction of Ministry of Finance. The *Consumer Credit Act* regulates consumer credit contracts, information and rights in the loan agreement together with other important consumer protection issues as database access, supervision and financial consumer protection (*Consumer Credit Act*, 2009, Article 1.)

For example, according to the Act mentioned above, prior to accepting the offer or entering into the loan agreement, the lender and credit intermediary are obliged to, in due time, provide the consumer with all relevant information such as type of credit, information on lender, total credit amount, duration of the agreement, interest rates, effective interest rates, amount, number and frequency of payments, default rates, missing payments warnings, collateral instrument of insurance, possibility to withdraw from the loan agreement, the right of prepayment together with lender's and intermediary's right to compensation (*Consumer Credit Act*, 2009, article 5.)

The legislator has given special attention to the method of calculating interest rates, where the lender is obliged to inform the consumer on conditions of regulating interest rate, when these conditions are available and also inform the consumer on any sort of index or reference rate applied to the initial interest rate, as well as inform the consumer on the term, conditions and changes made with the interest rate. In order to prevent usurious interest, interest rate cannot exceed the limit defined by the *Civil Code* (Law on the Amendments of the Consumer Credit Act, 2012, Article 7). Also, the lender needs to inform the consumer on the effective interest rate and the total credit amount the consumer has to pay, shown in an representative example, stating all criteria used in calculating the interest rate (*Consumer Credit Act*, 2009, Article 5). The *Consumer Credit Act* contributed to better interpretation of effective interest rate calculations, since the earlier *Credit Institutions Act* and *Consumer Protection Act* used different methodology for this purpose.

According to *Consumer Credit Act*, the consumers have the right to timely and free information disclosure on database consultations used for creditworthiness assessments (*Consumer Credit Act*, 2009, Article 5 and Article 9). All information, facts and circumstances collected in this manner are, thereby, considered bank secrecy (*Credit Institutions Act*, 2008, Article 168).

Since part of regulations fall also into the category of money transfer (previously mentioned *Directive on Consumer Credit, the Law on the Payment Services and Payment Systems*), the domestic *Payment System Act* is also a segment of regulatory framework of financial consumer protection in Croatia. This Act, among other, regulates obligations to inform the payment service user about the terms of service, as well as other rights and obligations and transaction accounts. For instance, the Act mentioned prohibits charging for closing the account in case of terminating the framework agreement after 12 months (*Payment System Act, 2009, Article 22*), since such practise reduces competition among payment service providers, which could consequently have a negative effect on *European single market* development, as the cornerstone of cooperation between the EU countries. Also, payment service users' personal data are confidential; therefore data processing by the payment service provider is done in accordance with the regulations on personal data protection (*Payment System Act, 2009, article 54*).

Bank consumer protection is also regulated by the *Credit Institutions Act* from 2008. The Act regulates conditions for establishing, operating and dissolution credit institutions with registered offices in the Republic of Croatia, as well as their supervision and the conditions under which legal persons with registered offices outside the Republic of Croatia may provide banking and/or financial services in the Republic of Croatia.

The *Credit Institutions Act*, among other, improved institutional structure of consumer protection. According to the Act, banks are obliged to entrust at least one of its employees with the task of addressing consumer complaints (*Credit Institutions Act, 2008, Article 309*) or establish organisational units responsible for addressing consumer complaints. The Act has recently undergone changes in consumer protection amendments that state credit institution must appoint at least one person responsible for addressing consumer complaints (*The Act on Amendments to the Credit Institutions Act, 2013, article 117*). A special emphasis is put on the importance of internal audit.

The latest amendments to the *Credit Institutions Act*, provoked by recent problems with repayments of foreign currency mortgages, place greater responsibility on credit institutions in the matter of variable interest rate. The credit institution is obliged to warn consumers of all variable rates risks, clearly and unambiguously define contract parameters influencing the agreed interest rates in the credit agreement (*The Act on Amendments to the Credit Institutions Act, 2013, Article 116*).

The regulatory framework directed at bank consumer protection has improved considerably over the last several years, having a positive effect on maintaing and enhancing consumer confidence and trust into the banking system. This framework reflects the EU guidelines, implemented in the national

legislation. It is also the reason why consumer protection in different countries cannot be absolutely compared.

According to *Diagnostic Review of Consumer Protection and Financial Literacy* issued by the International Bank of Reconstruction and Development/World Bank in February 2010, the Republic of Croatia succeeded in harmonizing the regulatory framework of consumer protection with the *acquis communautaire* in short term. The EU guidelines incorporated into Croatian legislation resulted in improved laws and regulations relating to consumer protection (International Bank of Reconstruction and Development/World Bank, 2010, p.11). The period included in the analysis marked the greatest progress in developing consumer protection in Croatia.

4. PROBLEMS AND IMPROVEMENT SUGGESTIONS FOR BANK CONSUMER PROTECTION IN CROATIA

The previous analysis of consumer protection regulatory framework in Croatia has confirmed its harmonisation with the EU guidelines. Therefore, there are no more new guidelines to be implemented into Croatian legislation. However, certain practical issues are still present in the field of consumer protection. What represents a widespread problem in Croatia is a sort of deviant practice in the entire financial sector, especially banking, in relation to consumers. Therefore, the governing bodies in Croatia have been dedicated to suppressing such undesirable and maleficent practice, which will probably result in amendments to the existing consumer protection legislation.

Apart from problems in credit payments, present in all crisis-affected countries, a widespread problem is also the practise of aggressive, misleading sales of banking services. Many bad practices are present on the Croatian banking market, though not against the law, they create a paradoxical situation where a certain banking practice is not illegal, but is also not responsible or ethical. One such example is the sale of banking services that are not in compliance with the client's needs or are even unnecessary. To solve this problem, a more rigid regulation is required, explicitly prohibiting and sanctioning deviant behaviour among Croatian banks (World Bank, 2010, p.4). The solution to this problem should start with the change in the banks' attitude. Banks should adopt this kind of strategy since serious approach to business relation can build trusting relationship, thus preventing possible future problems for themselves.

Key solution for preventing undesirable and maleficent practice, apart from regulation, is financial literacy, essential for consumers when deciding on a financial service. Consumers have to be informed and educated on offered financial products and services in order to improve the quality of their decision

making. Financial literacy increases the level of individual responsibility in taking risk when making a financial decision and only financially literate consumers can help financial sector contribute to real economic growth and poverty reduction (Vehovec, 2011, p. 68, 66).

Financial literacy in Croatia has recently been under special attention but still not adequately enough. The OECD defines financial education as the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help and to take other effective actions to improve their financial well-being (OECD, 2005, p. 26). One of restraints to improving financial literacy turned out to be insufficient funding, since coordinators for this project are Ministry of Science, Education and Sports in cooperation with Ministry of Finance. Workshops organised by the Croatian Banking Association have had positive reactions in the public, but it remains difficult to define to what extent they are used as a marketing channel for banks and how much are they really aimed at consumer protection. A positive, initial step in improving financial literacy in Croatia is the Draft of National Strategic Financial Literacy Framework under the jurisdiction of Ministry of Finance, sort of a snapshot of the current state, a starting point for creating financial literacy guidelines.

Germany, a very active country in developing financial literacy or Portugal could serve as successful examples of improving financial literacy with the help of governing bodies. Bank of Italy has a longer history in developing financial literacy and its target group are young citizens, potential bank clients.

Apart from problems in misleading sale of banking services and the primary problem of financial literacy, which makes consumers in Croatia even more subject to bad practices, there is also the problem of foreclosure. Most consumer complaints refer to misunderstanding of obligations, especially when guarantors are concerned (World Bank, 2010, p.10). When the foreclosures happen, consumers mostly complain about insufficient transparency about the banking service offered, however, validity of such contracts is undisputable. Regulation was also a factor in helping banks transfer risk to clients.

Complaints concerning the foreclosure problem, as well as all other financial problems, are usually submitted to Croatian National Bank. However, bank consumers together with the general public perceive the role of CNB in a completely wrong way. Citizens also address the Central Bank concerning their particular complaints, which do not fall under the jurisdiction of the Bank (Credit Institutions Act, 2008, Article 309), since the legislator did not prescribe this obligation to the Bank due to the volume and time required for performing such tasks (Maletić, 2005, p 16). According to the Amendments to the Act on the Croatian National Bank, the Bank will no longer be responsible for handling consumer complaints, opposite the current practice. Individual complaints to the

Croatian National Bank can only be an indicator of a general approach to retail in Croatian banking sector. The Bank, for example, follows periodical trends on number of consumer complaints to a particular credit institution (The Act on Amendments to the *Credit Institutions Act*, 2013, Article 117). Certain countries already have the Financial Ombudsman – public attorney for consumer rights. Such an institution is typical for countries with a single institution supervising not only banking, but all financial service, this not being the case in Croatia. Research show that consumer protection is better implemented in those countries that have financial supervision integrated within one institution (Maletić, 2005, p 16). Instead of doing above mentioned, the Croatian National Bank is more involved in improving financial literacy, for example, through its official site.

Generally speaking, most shortcomings noticed in bank consumer protection in Croatia refer to legal mechanisms used to deal with consumer complaints, since this practice has not been successful in Croatia so far. The Mediation Centre of the Croatian Chamber of Economy was created as an institution for dealing with consumer complaints, although Croatian citizens can file a mediation request to any mediation centre in Croatia as well. Mediation centres are designed as places for arbitrage and alternative, out-of-court settlements. However, this kind of inexpensive method of dispute settlements is not adequately developed in Croatia. Its potential is underused, unlike in the EU countries where they play an active role in the mediation process.

Certain shortcomings exist in the area of consumer informing. Though regulatory framework of consumer protection in Croatia is completely comparable to those in the countries analysed, the law-required consumer informing often comes down to lengthy contracts and unclear terminology.

Following the above, Croatian banking market should pay more attention to all aspects of consumer protection, especially to developing protection mechanisms in dispute cases, as well as implementing financial literacy. This makes issues of strengthening institutional structure of consumer protection and financial literacy current priorities for government bodies.

Concerning the mechanisms for consumer protection in dispute cases and in accordance with the practice from different world countries, a unique association for consumer complaints would mark a great headway for Croatian banking market. One such body could be created as a centre for financial consumer complaints to all types of financial services. Apart from the administrative function, this body would, with time, deal with disputes going up to a certain amount of money, while disputes with higher amounts would fall under the jurisdiction of mediation centres, being an efficient and easily available out-of-court way of settling disputes. Taking into consideration the problems of settling disputes in Croatia, a certain progress is noticeable, achieved by committing banks to form special organisational units and appoint a person responsible for dealing with customer complaints.

The widespread problem of financial illiteracy in the Republic of Croatia is a topic which deserves greater attention from the government structures, financial experts and scientists. In Croatia, financial literacy is often incorrectly perceived as a substitute for consumer informing and a mechanism for resolving disputes. Apart from the above mentioned, the necessity for improving financial literacy is seen in financial problems that occur due to its absence, which results in bad financial decisions. Existing measures for improving financial literacy in Croatia are not noticeable enough for the public, making it difficult to include wider population, not to mention particular interests behind these efforts. Therefore, the *Draft of National Financial Literacy Framework* is just the first stage in assessing current state and requirements and should lead to other independent measures for improving financial literacy. The programmes of financial literacy should be incorporated in educational systems from the early age. Also, more public/media space should have positive effects on spreading financial literacy, as research in developed countries has shown. Similar measures are suggested by other authors (for example Vehovec, 2011).

The practice of disclosing information on Croatian banking market could be improved or simplified by issuing documents with essential information (World Bank, 2011, p. 4), written in clear and simple language, informing consumers of key features and especially risks connected with certain banking services. The USA established a unique, independent regulatory institution within the Central Bank whose task is consumer informing. The independence of one such institution in Croatia would guarantee fulfilling the role it was created for, without serving to marketing interests of banks.

Apart from suggested measures, for enhancing consumer protection the Republic of Croatia could follow and use existing documents, created within the banking sector. One such example is the *Code of Good Banking Practice*, similar to documents found in other countries, created by the Croatian Banking Association in 2000. It provides banks with useful instructions on issues like consumer protection, bank secrecy; consumer's right to consumer data access for checking or correcting inaccuracies, consumer data protection and efficient resolving of problems during business activities (HUB, 2009). However, the *Code* is not given enough attention in the banking practice, while consumers' associations or legal community are not acquainted enough with the existing document (World Bank, 2010, p.19). Since there has been a certain period of time since the *Code* has been created, current trends in the Croatian banking sector impose a need for its revision.

Finally, consumer protection is not an isolated issue but a policy that should be incorporated into all other government policies. A long term approach and a harmonised policy are what is necessary to create a system in which consumers will feel safe and protected, their long-term confidence being the best value for banking system.

5. CONCLUSION

Due to important economic and social role of banks, consumer protection has a large significance in achieving stability and ensuring financial system sustainability. The USA and the EU have already realized the importance of consumer protection, which is confirmed by the fact that legal protection for consumers has the longest history in these countries. Croatia has also joined these countries in shaping the regulatory framework for consumer protection, though only recently. However, the key problems in bank consumer protection on the Croatian banking market are of practical nature. They are primarily reflected in the misleading sales practices, as well as in the problem of foreclosures. Therefore, it is expected that the future will certainly bring some improvements of the consumer protection regulatory framework. Research on bank consumer protection in Croatia has shown the need for improvement in all aspects of this area – consumer informing, consumer rights protection in cases of disputes and improving financial literacy, with the special accent on the previous two aspects.

Consumer protection is essential for creating a just system for the entire social community. Encouraging financial literacy, with the aim to financially educate bank consumers, is the key factor to achieving this goal, hopefully, with more help from Croatian government structures in the future.

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THE APPLICATION OF ONLINE FOCUS GROUPS IN MARKET RESEARCH

JEL classification: M39

Abstract

Focus groups, as important exploratory and qualitative methods of research, have become ever more present in theory and practice. The object of this research is to explore the applicability of online focus groups and to find out whether the traditional approach could possibly be exchanged with the new one. Also, the object is to summarize new reachable surveys and to compare theory with practice. The data was collected from in-depth interviews and secondary sources. The main questions are: Is the online focus group an effective method of collecting qualitative data, and is it always the best solution? Moreover, will it replace the traditional focus group? The new approach, however, can be cheaper and easily combined with other methods. For example, interviewees can be reached more easily. Both the traditional and the new approach have, of course, advantages and disadvantages. A researcher has to be well informed about them, so he could decide which approach is appropriate for which survey. Finally, one of the objectives of the

research is to check whether the Croatian market is developed enough for a concrete implementation of online focus groups.

Key words: focus group, online focus group, exploratory research

1. INTRODUCTION

1.1. Analysis procedure of traditional focus groups

The objectives of the research were to examine the applicability of the online focus groups, which makes the new approach different from the traditional approach, to conclude whether the online focus groups in modern business really are a desirable option for collecting qualitative data, to investigate whether the new approach can fully replace traditional focus groups, to summarize a recent research concerning the online focus groups, and finally, to compare theory and practice.

Focus groups are paid a lot of attention and they are very popular. They are usually used for qualitative market research methods. They are basically an unstructured interview of a small group of subjects in which the discussion of a topic takes place. The group is homogenous (Aaker, et al. 2007), Hair, Bush, Ortinau (2000); Malhotra and Birks (2003); Malhotra (2011); Marušić and Vranešević (2001) and usually has eight to twelve participants. The moderator is a person who guides and directs the conversation and encourages participants to debate. The moderator must have excellent observation and communication skills. Participants meet in advance and they are informed about the topic of discussion and participants have to represent the target group. The conversation takes place mostly in a relaxed atmosphere where the discussions are recorded on audio and video recordings. There are six variations of the classic focus groups and they are following (Malhotra and Birks, 2003, p. 169): bidirectional group interview, a group of dual moderators, duel moderator respondents - moderator, client - subjects and the mini group.

The moderator has the key role in conducting focus groups. His or her task is to develop a relationship with the respondent, to lead the discussion and examine the attitude of the participants. Also, he or she has a major role in the analysis and interpretation of results. The moderator has to understand the customer's business, goals, focus groups methodology, and, together with the management, he has to know how result results will be used.

The research topics can be the following (Malhotra, 2011., p. 192): understanding the perceptions, preferences and behaviours of consumers, understanding impressions about the new product, collect new ideas for existing products, development of creativity in advertising, impressions about the price, getting the reaction of consumers to the specific marketing program and quantitative interpretation of the obtained results.

It is necessary to pay attention to the following (Aaker, et al. 2007, p. 199): preparation is the key, to manage the process so that it is safe, choose the right people for the discussion, make no conclusions about respondents in advance. During the entire process of the research, the researcher should take care of the basic rights of respondents.

Numerous authors Marušić and Vranešević (2001), Aaker, et al. (2007), Hair, et al. (2000), Hair et al. (2008) Malhotra and Birks (2003), Malhotra (2011) in various ways show the advantages and disadvantages of focus groups. Taking all this into account, the benefits are the following: the group interview results in a lot of information, opinions, views and synergism of ideas. This is popularly called the "Avalanche effect," the term that means expanding the topics. In order to heat up the discussion and have respondents express their opinions stimulation is required to "breaks the ice". Therefore participants feel safer in a group because there is support in the fact that other people share their opinion. So, people speak only when they really have something to say. A focus group is also an opportunity to discover new ideas, and it can happen that the existing idea that was not paid special attention to previously is developed. This kind of qualitative techniques allow researchers to discover hidden reasons why people behave in certain ways in specific situations. The problem however is that the people who are chosen for the interview are usually more communicative ones, which means that results don't show opinions of regular consumers. The results cannot be generalized because of the problem of representativeness of the sample.

1.2. Procedure of online focus groups

Due to the development technologies and social networks, 50% of all qualitative research in the US has elements of online research - in the form of online focus groups (Parker, 2011, p. 120). The advantage of online research is the speed of data collection in order to quickly respond to market demands. Europe follows these American trends and, in general, online research has become a widely accepted method of collecting data (Comley and Beaumont, 2011, p. 316).

The traditional and the new approach are basically the same method, but there are some technical variations. The new approach requires the understanding of (Stancanelli, 2010, p. 761): general rules of qualitative research, exploring the traditional approach, learning about the support (YouTube, etc.) and reading scientific articles. Moreover, researchers have developed virtual community focus groups consisting of a waiting room, a room for groups and interview rooms for clients. Respondents are selected from a list of websites where they signed up for discussion. The new approach has 4 to 6 respondents since more than that would cause difficulty in conducting research. Emotions are expressed through "emoticons" (a combination of symbols which express feelings) and they are placed directly behind the sentence.

Burgess (2010) classifies online group interviews into "simultaneous" or "duplex" and depending on where the participants are located (Burgess, 2010, p. 61): same

time / same place, same time / different place, different time / same place and different time / different place. The rule is that the moderator writes in capital letters and the participants use a combination of small and large printed letters. Also, participants are required to write answers under numbers so the moderator can quickly connect the question with the answer. It facilitates and simplifies the process of discussion that lasts between sixty and ninety minutes. Also, it is important to group subjects with less experience in online discussion who are in a group with those who are already acquainted with this way of communication.

There are five types of behaviour of participants in the online discussion: (Hughes, Lang, 2004, p. 99): "leading monologues" (Monologuing), "stating the same" (Dittoing), "one-way" (one-liners), "essays" (Essays) and "challenging" (Challenging).

1.3. Comparisons of advantages and disadvantages of traditional and online focus groups

In online focus groups first results are available after the discussion, and the final version is available within 48 hours, so compared to the traditional focus groups, the entire research process is much faster.

Online research is particularly good (compared to the traditional approach) in the following situations (Aaker, et al. p. 201): anonymity is necessary, studies have dispersed the crowd, it's not profitable to gather respondents in physical space because it is small, the studies are related to information technology, which include feedback on related topics and web assessments, and studies involving professionals, and time is limited. However, online focus groups are not the best choice when (Aaker, et al. 2007, p. 201): the "body language" and facial expressions cannot be detected, when it should show a prototype, when then product need to be touched or tasted. Of course, the key limitation of online focus groups is reflected in access to computers and the Internet. Only 62% of Croatian households have Internet access (Index, 2011, Sept. 6, 2012). Finally, respondents who participate in traditional focus groups often do not want to participate in online focus groups. Online focus groups are a better solution for researchers with limited budgets and for the audience that is available only online. Topics that require tasting products and stimulation is better left to the traditional focus groups. And in both approaches it is very important to have a quality moderator. Since people today spent a lot of time on social networks and virtual communications, researchers should take advantage of such possibilities in order to improve online customer service. Its main limitations of the research market through social media are (Malhotra, 2011, p. 206): the problem of generalization, duration and complexity of operations.

2. METHODOLOGY

Data were collected from secondary and primary sources. Secondary sources are common and predominantly represent books and scientific articles.

The primary sources of data were collected through in-depth interviews conducted to provide insight into the Croatian business practice. The aim is to gain insight into the extent to which market research agencies in the Croatian market conduct online focus groups. The study included five experts from three leading market research agencies in Croatia: Gfk (two respondents), Hendl (one respondent) and Ipsos Puls (two respondents). So this is a deliberate pattern and a sample specialist. The reason for choosing these three agencies is tied to the fact that only these three agencies in some form had experience with the implementation of online focus groups. Although a small sample of a key constraint is clear that the inclusion of experts from research agencies that did not have any experience with the implementation of online focus groups would not make sense. Also, the inclusion of experts from research agencies operating in the Croatian market is logical since the primary objective of the study was to determine the use of online focus groups on the Croatian market. Respondents are professionals and therefore a detailed interview was the most appropriate method of testing. The study was conducted at the premises of the agency, and interviews on average lasted forty minutes. The survey instrument used was a guide.

3. RESULTS

The paper analyses the differences between online and traditional focus groups, and the advantages and disadvantages of these approaches. The results that follow are predominantly related to the opinions of five experts in the field of market research working in three leading research agencies operating on Croatian market. Focus groups are increasingly gaining in popularity because the resources of modern enterprises are limited. The new approach to focus groups is used for different topics and purposes. Furthermore, the number of participants, duration of the discussion, the results, the method of gathering participants, accompanied by discussions and activities provided for the selection of respondents in the sample differ from author to author. Topics are varied: launching new products, testing products, developing ideas, products names and advertisements assessment websites, marketing studies (psychographic, relationship marketing, positioning, studying the older and younger generations X and Y), e-learning, adolescent sexuality, experience and violence through technology applications in information systems, shared health information online and the comparison of traditional and new approach to focus groups, questions about a new approach to combine the online focus groups with other methods. The mentioned topics are suitable for online research, because the target group is primarily online and is designated as "Net Gen"(Internet generation). Also, in this way specific group of people can be accessed more easily. Furthermore, one can easily come up with a theoretical background of online focus groups (comparison of traditional and new approaches). Researchers have generally similar research purposes. It is the most efficient way to gather information and make changes on the market. Results

indicate high satisfaction with researchers using this method. All have positive experiences with online focus groups as it fulfils the purpose of research. The results are different, but in essence the positive impact on all researchers is visible. This leads to the following results: a good overview of the product or brand and the consumer's perception of the benefits thereof, modification sales strategy, product customization demands of consumers, an excellent (and good) feedback, improve marketing relationships, improving communication with customers and proven theoretical background.

Therefore it can be concluded that a new approach to focus groups is an effective qualitative test method. Number of respondents varies from researcher to researcher. Minimum number of participants is five and the maximum eighteen. The number of respondents is higher if the issue is more complex (we try to examine the differences in cultures or violence through technology), i.e. higher studies if they are expert respondents. Online focus groups lasted between forty-five and ninety minutes. Furthermore, if the topic is simple, discussions take place faster (especially if it is a "simultaneous" online collaborative interview). Since it is primarily used by "asynchronous" online focus groups, the discussion can last for two nights in a row, a week or three months. Basically, most of the research is carried out only in one group, but at least two discussion groups. Very rarely, six discussion groups are organised. It also increases the cost of online focus groups (which is often cited as an advantage of using this method). On the other hand, the respondents are grouped in different ways: self-selection, i.e., voluntary participation, client sites and from a database of researchers (telephone, from an online panel, e-mail lists).

One can say that the website of the client in a way is a "filter" for potential candidates who are carefully selected in order to sample the results of the research were as credible. It has been proven that online focus groups ideally complement other research methods. Focus groups have also proved to be an ideal method to lower the costs (travel and other expenses).

Most experts believe that the online version of qualitative research is not relevant to the Croatian market because it is very small and the need for an online version is there due to foreign companies. Online data collection in Croatia took place between 2007 and 2008. The dominating point of view is that the benefits of the new approach to data collection in relation to the classical method are the following: price, comfort, speed, gathering subjects (specific groups: managers, mothers, etc., users of specific products, different nationalities, etc.), time, and "upload" material from any location at any time, a wealth of answers, sensitive topics and openness of the respondents (possibly enter the lifestyle).

Furthermore, experts cite the following shortcomings: there is no personal contact, lack of well-described condition of patients, no tasting product, or physical contact with the product, you cannot use all projective techniques, the lack of interaction (as respondents seek stimulus), the time, the lack of non-verbal communication and limited information.

All market research agencies used a pilot study. In comparison to other test methods, the traditional focus groups were often applied. Most experts do not

see the advantage of online focus groups in relation to traditional ones and market research companies do not invest in it often because it requires additional training, time, new skills and introducing moderator respondents with a new approach. Clients are sceptical about the new approach and decide for the traditional approach. All agencies believe that online focus groups could be an effective method for collecting qualitative data but few believe that in the near future, the Croatian market will have a significant need for the implementation of online focus groups. All experts say that online focus groups are suitable for the younger population. Clients are biased, respondents are not well informed, and the representativeness of the sample is questionable. Looking at trends, the online version has a future, but currently is not well recognized by clients.

While focus groups became popular worldwide because of the specific approach, the Croatian market is of an opposite opinion. The reasons can be found in the culture, traditionalism and underdeveloped markets. Also, the level of education negatively affects the perception of the new approach. It is evident that there are numerous alternatives to online focus groups but in practice they are not used and experts believe that online focus groups are too complicated and do not currently expect them to be significantly applied to the Croatian market.

4. CONCLUSION

After analysing the research results, it can be concluded that online focus groups are relevant and effective method for collecting qualitative data which is consistent with the theoretical background. However, the new approach can not completely suppress the traditional approach. Also, the online focus groups are different in theory and practice. The number of respondents is higher in practice than in the theoretical claims. Respondents were even divided into several groups and costs online group interviews growth ("duplex" group interview - two moderators, more subjects and groups, longer duration). Duration of discussions can be less than an hour, depending on whether the discussion "at the same time" or "non-simultaneous" and with which groups. Also, it is difficult to gather the respondents at the same time for online discussion ("simultaneous" group interview). Contrary to theoretical assertions, too, we can see that the respondents can somewhat be identify. Especially if there is a requirement for the selection of the sample (e.g. librarians who are members of the RIS). Furthermore, the dynamics of the discussion can be triggered by digital stimulator. The moderator is expected to do a lot more compared to the theoretical claims. He must have new skills - to be "fashionable" to do fewer errors. Also, discussions with the observer can be communicated in person, and not necessarily through a computer. If the discussion takes place "non-simultaneously", the moderator may be a little more committed to examining the individual, resulting in a wealth of ideas. Online focus groups requests audience to use the Internet and technology.

Furthermore, when the technology or logistics is a problem, we should consider that the traditional approach will be used. For example, with children it is difficult to organize a traditional focus group because they are dependent on transportation (public or parental) and the online version offers a better solution (for example, research by Nicholas, et al. (2010.)). From the above it can be concluded that online focus groups are not always the ideal solution. It is because of these qualities we cannot completely replace the traditional approach with the new one. On the other hand, the traditional group interview (in relation to the online group interview) results in higher costs and more demanding testing methods. On the basis of in-depth interviews it can be concluded that the Croatian market has no significant application of online focus groups, although it is considered that it is an effective and ethical method for data collection. Leading Croatian market research agencies are foreign-owned and have the appropriate technology to conduct online focus groups, but do not apply it to a significant extent because the Croatian market hasn't yet reached the required stage of maturity. Moreover, there is a lack of IT literacy of Internet users in Croatia. It is expected that the quantity of the research through the new approach has a tendency to increase in the future (due to specific types of research topics and inaccessibility or dispersion of respondents). This can be attributed to cultural differences, traditionalism and underdeveloped markets. It takes a lot of knowledge (in the world and Croatia) to skilfully handle and use a new approach to benefit all parties - customers, researchers and consumers.

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CONSUMER PROTECTION IN THE REPUBLIC OF CROATIA AND IN THE EUROPEAN UNION

JEL classification: M39

Abstract

The rise of the movement for the protection of consumers throughout history was led by several principal researchers, who have greatly influenced the development of the consumer protection on the territories of the Republic of Croatia and the European Union. Having signed the Stabilisation and Association Agreement, Croatia has committed to harmonize its consumer protection policies with the ones that are most effective in European Union. This paper presents the legal frame of the consumer protection in Croatia, with special attention given to the obligations of retail entrepreneurs. The awareness of Croatian consumers regarding their rights, but also obligations, towards merchants is described, and special emphasis is given on the state of commerce and consumer protection on the Croatian market. The elaboration of the current condition of trade and consumer protection in Croatia is complemented with the example of bad practice in the field of consumer protection in Croatia.

Keywords: Consumer Protection Law; traders' commitments; consumer protection in Croatia and European Union.

1. INTRODUCTION

This paper discusses consumer protection on the territories of the Republic of Croatia and the European Union. The purpose of the paper is to display the current condition of consumer protection in Croatia in regards to European Union, and to describe a common state of mind of wholesale and retail dealers that greatly affects consumers and creates the need for their increased protection.

The paper is divided into four sections. The first section describes the rise of the movement for the protection of consumers, its characteristics and history, as well as the principal thinkers of the movement. In particular, consumer rights and obligations are presented. The second part presents the movement's development in the European Union, and the third section deals with the state of trade and consumer protection in Croatia. In the last section, overview of the consumer protection in Croatia is complemented with an example of poor practice in that field. The data were collected from the Internet sources as well as from the literature listed at the end of the paper.

2. CONCEPT AND HISTORY

Consumer protection covers economic and legal issues, as well as issues related to the safety of consumers' health and nutrition, information and education of consumers, and the contribution of consumer associations to the development of consumer protection policies and, in general, the market economy.¹

Although the history of consumer protection goes back to Roman law, the movement, as known today, finds its origin in the late 19th and early 20th century marketplace in the United States. Small but positive steps in protecting consumers took place, such as minor legislations at a state level, but the strongest incentive was the book "The Jungle" in which the author described his abhorrence towards the meat packing industry in Chicago. Horrified, President Theodore Roosevelt had these allegations verified, and soon afterwards the US Congress passed the Pure Food and Drug Act which, along with the Meat Inspection Act, had ensured a legal framework to prosecute anyone who would wilfully violate the quality of the food and drugs used by the consumers. The public has become more aware, and in the mid twentieth century, two stalwart figures carried on with efforts in consumer protection movement: Ralph Nader and John F. Kennedy.

Ralph Nader is an American author, lecturer, attorney and political activist, most active in areas of consumer protection, humanitarianism, environmentalism, and democratic government. He began his role with research

¹ Liha, A. (2004). *Zaštita potrošača u procesu proširenja Europske unije: izazovi za Hrvatsku* from: *Pridruživanje Hrvatske Europskoj uniji: izazovi institucionalne prilagodbe*, Institute of Public Finance. pp. 192 (author's translation)

within the automotive industry in US, and the results had a major impact on the general public. Thanks to his efforts, a number of laws were passed regarding the safety and consumer protection, culminating in a historic shift in responsibility for automobile safety from the consumer to the government. Ralph Nader founded the organization "Public Citizen" and dozens of other organizations and campaigns against the dangers which he considered a threat from the multinational corporations, and his work was continued by hundreds of young activists across the country, known as "Nader's Raiders".

Parallel to his work, people's awareness of their rights increased. In 1962, US President John F. Kennedy delivered an historic address to the US Congress in which he outlined his vision of consumer rights. 'Consumers, by definition, include us all.' Kennedy said, 'They are the largest economic group, affecting and affected by almost every public and private economic decision. Yet they are the only important group... whose views are often not heard.'² This was the first time any politician had set out such principles and pointed out four basic consumer rights: safety, information, choice and voice. Over time, the consumer movement has developed this vision into a set of eight basic consumer rights that now define and inspire the work of most consumer protection organizations.³

- The right to satisfaction of basic needs - To have access to basic, essential goods and services: adequate food, clothing, shelter, health care, education, public utilities, water and sanitation.
- The right to safety - To be protected against products, production processes and services that are hazardous to health or life.
- The right to be informed - To be given the facts needed to make an informed choice, and to be protected against dishonest or misleading advertising and labelling.
- The right to choose - To be able to select from a range of products and services, offered at competitive prices with an assurance of satisfactory quality.
- The right to be heard - To have consumer interests represented in the making and execution of government policy, and in the development of products and services.
- The right to redress - To receive a fair settlement of just claims, including compensation for misrepresentation, shoddy goods or unsatisfactory services.
- The right to consumer education - To acquire knowledge and skills needed to make informed, confident choices about goods and services,

² <http://www.consumersinternational.org/who-we-are/consumer-rights> (08.07.2013.)

³ <http://www.consumersinternational.org/who-we-are/consumer-rights> (08.07.2013.)

while being aware of basic consumer rights and responsibilities and how to act on them.

- The right to a healthy environment - To live and work in an environment that is non-threatening to the well-being of present and future generations.

As a result of further work, the Department of Consumer Affairs was founded in 1970. Public officials and political appointees were given the task of teaching and representing the consumers in all major public affairs, as well as the task of increased surveillance and protection against bad actors in all aspects of the market. The Consumer Protection Act itself was passed in 1972.

But, apart from their rights, consumers have a number of obligations they must respect in order to protect themselves:⁴

- Critical awareness - consumers must be awakened to be more questioning about the provision of the quality of goods and services.
- Involvement or action - consumers must assert themselves and act to ensure that they get a fair deal.
- Social responsibility - consumers must act with social responsibility, with concern and sensitivity to the impact of their actions on other citizens, in particular, in relation to disadvantaged groups in the community and in relation to the economic and social realities prevailing.
- Ecological responsibility - there must be a heightened sensitivity to the impact of consumer decisions on the physical environment, which must be developed to a harmonious way, promoting conservation as the most critical factor in improving the real quality of life for the present and the future.
- Solidarity - the best and most effective action is achieved through the formation of consumer/citizen groups who together can have the strength and influence to ensure that adequate attention is given to the consumer interest.

3. DEVELOPMENT OF THE CONSUMER PROTECTION IN EUROPE

Consumer protection movement had sprung and flared up in US, and its impact had spread in all developed countries. However, growth of the idea happened in Europe at a slower rate. It was expected that the development of economy, competitiveness and transparent market would constitute sufficient protection to the consumer, and provide him with the greatest benefit. Therefore,

⁴ <http://www.consumersinternational.org/who-we-are/consumer-rights> (08.07.2013.)

the protection of consumers was for a long time characterized as a policy subordinate to the completion of the European internal market. From the perspective of consumer interests, the project of economic integration got its "human face" in 1991, when a special chapter devoted to the protection of consumers was brought in the Maastricht Treaty. From that time, the policy of consumer protection has become one of the leading EU policies of great importance. This policy is complementary to the Member States, but to ensure that consumers in every Member State enjoyed approximately equal protection, the EU rules predicted a minimum of legal protection in each state, and allowed them to provide a higher level of protection through their legal systems.⁵

These rules, in the form of directives, were adopted by the Republic of Croatia upon signing the Stabilization and Association Agreement in 2001. Prior to this, consumer protection in Croatia wasn't regulated by just one, but by a number of regulations covering different areas of law, and this dispersion was the main cause of the inefficiency of that policy. In 2003, the first Consumer Protection Act was brought and followed by a National Consumer Protection Program for the biennium – 05-07. The Act has been replaced by a new one in 2007, and this one has been amended twice – in 2009 and 2012.

The implementation of the Act and effective consumer protection are promoted by the Court of Honour at the Croatian Chamber of Economy.⁶ Apart from the Court, there are various associations or consumer organizations that gather citizens with the aim of informing and assisting in the realization of the consumers' rights. On a global level, the Consumers International serves as an umbrella organization for consumer associations, and in Croatia that role is reserved for the organization "Potrošač" ("Consumer").

4. TRADE AND PROTECTION OF CONSUMERS IN CROATIA

In terms of legal definition, the sale of products and provision of services covers a series of issues regarding requirements for the realization of retailer's refusal to sign the contract, sales terms, billing invoices and work orders, and the protection of personal consumers data. Therefore, among the legal obligations of traders the following are accentuated:⁷

- To clearly highlight the sales conditions and prices;
- To separate the defective products, and to emphasize that the product is defected;

⁵ Ministarstvo gospodarstva, rada i poduzetništva (Ministry of Economy, Labour and Entrepreneurship): „Mini vodič: Zaštita potrošača“; April, 2009. (author's translation)

⁶ <http://www.hgk.hr/> (09.07.2013.) (author's translation)

⁷ Zakon o zaštiti potrošača (Consumer Protection Act), revised text, from www.zakon.hr (09.07.2013.) (author's translation)

- To highlight the prices before and after reduction for products sold on sale;
- To provide all documents during sales - every product has to be labelled and technical products have to have warranty, user manual, list of services etc. All documents must be written in the Croatian language and Latin script;
- Eligibility in terms of packaging, such as: packaging must not be harmful to the health of consumers; must be adapted to the shape and weight of the product; consumers should not be deceived in terms of weight and size of the product etc. Bags used for carrying that contain, in whole or in part, logo, trademark, slogan and/or name of the manufacturer/retailer shall be considered promotional material and may not be charged;
- Liability of the retailer for defects, visible as well as hidden, and the guarantee for the proper functioning of sold items;
- Confidentiality of personal consumers' information.

In addition to these obligations, unfair business practices are expressly prohibited. These include misleading actions (business practice which contains incorrect information that may instigate the average consumer to make a decision about a transaction that would not otherwise be made), and aggressive business practices (practice that, using harassment, coercion and illicit influence, substantially reduces the freedom of choice of the average consumer).⁸

By adopting the Consumer Protection Act and its amendments, Croatia, at least theoretically, got closer to European standards. Having implemented almost all EU Directives, and even tightening certain criteria, one can say that this law is well-edited, and provides a very good basis for adequate consumer protection. What is lacking is facilitating the implementation of the law in daily practice, and that is what maximum attention should be given to in the future development of consumer protection.

4.1. State of commerce and consumer protection in Croatia

In any market transaction, there are two sides: the retailer and the consumer. Each side has its rights and obligations, which are mutually fulfilled; consumer's right is the obligation of the retailer, and vice versa, the obligation of the consumer is retailer's right. These subjects should be equal, but, mainly through entrepreneurial activity, there is a disruption of this balance on the

⁸ Zakon o zaštiti potrošača (Consumer Protection Act), revised text, from www.zakon.hr (09.07.2013.) (author's translation)

market, due to the fact that the profit from selling a specific product several times exceeds the benefit that a consumer has upon buying that same product.

This problem leads to the conclusion that the market today endured a change of fundamental postulates in business, the primary of which is that the production is supposed to exist in order to meet consumer needs. However, this process has experienced a complete reversal, and so production today exists as an activity whose purpose is actually to serve the interests of the individual owner in the acquisition of wealth and power, and consumption is only a secondary goal. Moreover, in many cases there is over-production, and continuous efforts of entrepreneurs through sales, marketing and related services are made to induce consumption of the surplus of manufactured goods.

The result of these changes is the imbalance between consumers and retailers. On a perfect market, the trader and the consumer would be mutually complemented, and the quantity, quality and price of products on the market would be optimal. In this case, there would be almost no violation of the rights of consumers, and there would be no need for their protection. Therefore, it is clear that the development of the practice of consumer protection has a direct cause in market imperfection, or the imbalance between the retailer and the consumer. In other words, the protection of consumers should have the status of market principles, rather than being a subject of implementation of the regulatory bodies. If it were possible to return to the primary process, that the production serves consumption, this condition would be rectified and the balance would easily be established.

However, one of the key elements in this process on the market of any given country, including Croatia, is the condition of trade and the mentality of the merchant in that country. In the modern world of mass competition and the accumulation of power, the fundamental goal of almost every entrepreneur has become personal wealth and ensuring a better market position. For this purpose, the trade policy began to form in such a way that the main goal is to acquire the goods at the best price, and to sell them in the best sale conditions. Of course, this has always been a crucial trading postulate (principle of effectiveness), but rather still a lot more attention had been given to the wishes and needs of the consumers and their satisfaction, and explicit attention was paid to the good reputation of the entrepreneur.

Today, mass production has reduced the price to its lowest level, and the market is dominated by large wholesale dealers, so called "grossers", who purchase these products in huge quantities, thus inducing further lowering of the prices. To make sure that this practice does not jeopardize their business, the manufacturers are looking for cheaper ways to produce their goods, which, in most cases, negatively affects the quality of the end product. Focus on earnings took on such proportions (for some retailers) that they almost ceased to pay attention to what happens to that product when it really came into the hands of the

final consumer, and whether the consumer would be pleased with the purchased good.

“Grossers” then sell the goods to smaller wholesale dealers and only the next level (if then) in the distribution chain belongs to retailers, who do business with final consumers. As a result, the producer-consumer relationship is broken. Regardless of the number of agents, in the past this communication could always be achieved. Globalization raised the whole process to a higher level and the connection between the final consumer and the manufacturer was torn, placing small traders on the "fire line". In many cases, the small trades also aren't in direct contact with the manufacturer, and cannot influence the quality of the products they sell, yet are responsible for it.

This has created an absurdity on the global level, which brought retailers in a very unfavourable position. They are, separately, too small and too weak to have any effect or dictate the terms of a transaction. It is the wholesale dealer that determines operating conditions, and a small company is left to accept them, or give up the business with that wholesale dealer. And this creates a "vicious circle"; if a small retailer decides to operate independently in the global market, he would get a lot worse conditions by the manufacturer than those that would be achieved with the wholesale dealer, because he has no power, no competition strength, nor the market position that would allow him to achieve better conditions. These wholesale dealers are turning this to their advantage by not paying attention to the quality of the purchased goods, but only at achieving better purchase or sale conditions, because they are fully protected in the whole sale process: their name is not on the product nor the bill, and they don't have to worry about low quality products damaging their reputation of a good trader. In addition, wholesale dealers are generally protected with the contracts clause "seen-sold", which, roughly, means that the customer (in this case the retailer) buys what he sees - subsequent complaints are not taken into account.

This unenviable position of retailers can be solved in only one way, and that is by the merger of small retailers into groups that will be able to impose their conditions to wholesale dealers. In other words, if a number of small retailers comes to a wholesale dealer with a joint position, for example that they will not accept the goods under the "seen-sold" clause, the wholesale dealer will have to pay better attention regarding from whom he would buy the goods next time, and at what price and quality, if he doesn't want to lose his market share. At the same time he would still have a very wide selection, because, where there are manufacturers who sell very cheap and low-quality goods, there are also manufacturers who sell their wares at a little higher (but still very low) prices, but of much higher quality. This way the wholesale dealer will still make a good profit and end users will be satisfied, but it will not happen as long as the wholesale dealer is not forced to give up part of the huge profits realized by the already established way of doing business.

Conducting business this way becomes more common every day and, however strong on national level, reflects more and more globally. On the world market the mentality of consumerism and creating economy globalism prevails, and the trading chains that support the poor-quality mass production, where they can earn huge amounts of money, thrive in these conditions. At the same time, in the end market there are small traders who are still trying to keep up in terms of the quality of a small number of products and in achieving personal contact with the consumer, and so there is a conflict of interests of the two sides. And, as already mentioned, the “big fish” have the power to push through their interests, which leads to the deterioration of small retailers and, ultimately, dissatisfied consumers, which have to be protected.

Termination of this kind of business can be, at a state level, achieved by regulation of the laws and certain import measures, with simultaneous protection of the domestic market. This is easily feasible, following the example of the Nordic countries which are very well arranged, but the question of motives is left open: to protect consumers fully, or to realize one’s own interests. So, until the prevailing mentality is altered, the market will be dominated by these conditions, and the practice of consumer protection will become more and more important. Therefore today, more than ever, it is necessary that the consumer is fully educated and informed as to what he can and cannot ask of the retailer with whom he does business with.⁹

5. CONSUMERS’ AWARENESS

One of the key elements of consumer protection is the awareness of the citizens themselves, which in Croatia is still insufficient. Year after year, their knowledge and experience increases, but it will take a lot more work to get the average Croatian consumer informed in a way that he can independently look after his own interests. According to data from various surveys¹⁰, the majority of consumer complaints in retail refer to the declaration, or its inaccuracy, incompleteness or incomprehensibility.

As for the Split-Dalmatian County, according to the association “Dalmatian consumer”, the largest number of complaints and violations of consumer rights is not in retail, where it is the most visible, but in the public service sector, and in the telecommunications business. Following is the example of bad practice in the field of telecommunication services in Croatia.

One of the (relatively) recent providers of telecommunications services in the Croatian market is the mobile operator Tele2, which recently marked its

⁹ Text based on the author's research in the Association for the Protection of Consumers in Split, and information gathered through interview with the Association's legal adviser.

¹⁰ A great number of research surveys was carried out by GfK (a market research agency in Croatia); surveys were collected and analysed from a web site Potrošač – Association for the protection of consumers in Croatia, on <http://www.potrosac.hr> (09.07.2013.)

business practice with a negative example. The operator offered its consumers a new tariff, called "Revolution", which was promoted as the only tariff with which users can perform an unlimited number of calls to all Croatian fixed and mobile numbers, and send unlimited number of text messages to networks in the Republic of Croatia. During the promotion, when talking to potential consumers, even through technical support, agents persuaded the users that this was a rate without any restrictions, without the "small print" (contractual provisions written in fine print that put some restrictions) and without "catches".

It turned out that with this kind of behaviour Tele2 knowingly deceiving their consumers, since in the consumer contract a Principle of justice is stated, according to which the maximum conversation time is limited to 5.000 minutes, and the number of text messages to 3.000 messages per month. Despite this, the association for the promotion of the rights of users of electronic communications services „Telekom“ has decided not to respond, reckoning that this mobile tariff would still make a lot more good than harm to consumers because of increased market competition. This proved to be true and was reflected with a significant reduction in cost of services of other operators.

However, having a large number of users deciding to activate the specified tariff, Tele2 had changed the conversation restriction stated in the Principle of justice - from 5.000 to 2.000 minutes per month, which was meant to reduce the allowable amount of conversation for over sixty percent. In addition, there was an additional restriction towards users of the „Tomato“ network, to as low as 200 minutes per month. This behaviour was rated as misleading and possibly premeditated fraud to the detriment of users by „Telekom“, after which the association reported Tele2 to HAKOM (Hrvatska agencija za poštu i elektroničke komunikacije – Croatian Post and Electronic Communications Agency).

The Agency has carried out an inspection of the above case, and notified the operator to promptly protect its users from unfair, misleading and illegal activities, and to inform them of their right to terminate the contract without compensation if it has not already done so, even though it was obliged. After this, followed by a revolt of a huge number of users that gave their trust to this operator, Tele2 has abandoned these changes.

This is one of the less common examples where consumers have joined together and influenced a decision that would jeopardize their rights; unfortunately, a great number of these decisions go unnoticed because they influence a smaller number of people, and those „smaller“ violations of consumer rights are not sanctioned.

Although this case ended in favour of the consumer, the question arises as to how a serious provider of telecommunication services can come up with this kind of scheme. On the European market, the rules are clear and the competition fierce and it is very difficult to realise such a scenario in any country of the EU.

6. CONCLUSION

Europe hadn't developed policies in the field of consumers' rights during their development on the US territory, but in a short time it has become one of the main goals of the EU, and has developed into one of the best policies of consumer protection in the world. Croatia has set to do the same upon signing the Stabilization and Association Agreement, but even though this policy is well-regulated on paper, in practice it is still lacking. The key elements of the policy are missing, without which all theory is completely useless. Even with the fact that the existing legislation of the rights of consumers is well regulated, and assuming that Croatian normative solutions adapt to the ones in the EU, the protection is still not complete until the conditions are met for the application of these solutions.

Upon analyzing the current situation in trade and consumer protection in the Republic of Croatia, came a conclusion that the Croatian legislature could greatly improve the current state of consumer protection. The "vicious circle" of resale through large retail chains doesn't assist the ultimate goal, which is that a good product gets into the hands of the consumer at a reasonable price. Therefore the consumer complaints arise and the entire strategy is developed to protect that consumer, when in reality all problems would be easy to solve if it were in the interest of powerful groups.

What is more disturbing, the results of a research regarding Croatian consumer's awareness of his rights and obligations are devastating. This area should be thoroughly covered and brought up to attention in the future, through the media or similar activities.

Consumer protection in European Union is one of its best policies, and it should serve as a target for Croatian efforts. When Croatia achieves that level of business, one can say that Croatia is a part of Europe; until then, no matter how invested one economy gets in other areas, it is just lagging behind the developed countries, because consumer protection is as important as any basic human right, and it is one of the most important indicators of a countries' development.

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NETOUR: A EUROPEAN NETWORK FOR EXCELLENCE IN TOURISM THROUGH ORGANIZATIONS AND UNIVERSITIES IN RUSSIA.

JEL classification: L83, I2, Q01

Abstract

Russia is one of the fastest growing tourism markets (+8% growth in 2011) with many resources that are yet untapped. This paper presents NETOUR, a project of European and Russian universities that aims at boosting Russia's competitiveness as a tourism destination. The purpose of this project, funded by the European Commission through a TEMPUS grant, is to propose a model for cooperation between universities and the main stakeholders in the tourism sector, in order to favour its sustainable development. Following a situation analysis of tourism in Russia, both from a supply and demand side, the researchers conduct an analysis of the gaps that exist between what Russian universities propose in tourism management education and what tourism professionals expect from higher education training and the competences they need to succeed. The results lead to university curriculum revisions on the one hand, and continuing education proposals on the other hand. The pillars that support NETOUR are: (1) Knowledge transference between Universities and society: facilitating the adoption of innovations by tourism firms, as well as reinforcing students' employability; (2) Lifelong learning: identifying tourism professionals' knowledge, updating needs, and proposing specialized training according to their requests; (3) Open dialogue between the various stakeholders in the sector (i.e., policy makers, entrepreneurs, local population, alumni, students, professors,

professional associations, etc.); (4) Design of new tourism management curricula according to the real educational needs of the sector. This ambitious three-year project should yield benefits for all tourism sector stakeholders and lead to improving the competitiveness of Russia as a tourism destination.

Keywords: *tourism, competitiveness, network, higher education*

1. INTRODUCTION

The network for excellence in tourism through organizations and universities in Russia (NETOUR) is a TEMPUS project aimed at fostering positive sustainable change in Russian universities involved in teaching and research in the area of tourism management as a key activity for social and economic development. TEMPUS is a European Union programme that supports the modernisation of higher education in the area surrounding the EU. This programme promotes institutional cooperation that involves the European Union and partner countries and focuses on the reform and modernisation of higher education systems in the partner countries of Eastern Europe, Central Asia, the Western Balkans and the Mediterranean region. TEMPUS provides support to consortia of institutions composed of universities, university associations and other stakeholders, such as organizations and public institutions that should be useful in achieving the objectives set by the consortia (EACEA, 2013). Specifically, the programme looks forward to fulfil the following objectives: To enhance the quality and relevance of higher education in the partner countries; to build up the capacity of higher education institutions in the partner countries and the EU, in particular for international cooperation and for a permanent modernisation process, and to assist them in opening themselves up to society at large; to foster the reciprocal development of human resources; to enhance networking among higher education institutions and research institutions across the partner countries and EU Member States; and to enhance mutual understanding between peoples and cultures of the EU and of the partner countries.

In the case of the NETOUR consortium, it brings together under the University of Extremadura's leadership 15 recognized European and Russian institutions, such as SKEMA Business School (France), the French Institute for Tourism (IFT), Manchester Metropolitan University (United Kingdom), the Dublin Institute of Technology (Ireland) or the University of Lapland (Finland). Other Spanish universities involved in the project are the Polytechnic University of Cartagena and the University of Jaen. On the Russian side, the Russian State University of Tourism and Services in Moscow, the St. Petersburg Interregional Resource Center, St. Petersburg State Polytechnic University, St Petersburg State

University of Service and Economics, Volga State University of Technology, the Natural Park of Chavash Varmane in Mari El Republic, Sochi State University for Tourism and Recreation, and Kuban State University of Physical Education, Sport and Tourism are partners in this Project as well.

Figure 1. NETOUR consortium representatives during the kickoff meeting in Spain, February 2013.



Source: www.netour.eu

NETOUR was designed upon the idea that tourism serves society in contributing to its prosperity and well-being, increasing standards of living, generating wealth for the territory (Crouch & Ritchie, 1999; Dwyer et al., 2004; Mazanec & Ring, 2011; Dimanche & Andrades, 2012) and in promoting a region or country, enhancing its image and even favouring its exports (Dwyer & Kim, 2003; Elliot, 2011). Certainly, tourism's economic significance is now well recognized for less developed countries (e.g., Thailand, Tunisia, or Caribbean island states), as well as for developed countries (e.g., France, Spain, Canada or the USA). Both the World Travel and Tourism Council and the United Nations World Tourism Organization publish reports highlighting the economic significance of tourism, its continued growth over the past decades, and prospects for overall ongoing future growth. In the case of Russia, the "Targeted Programme Development of Incoming and Domestic Tourism in the Russian Federation, 2011-2018," approved by the Government of the Russian Federation, Order N644 2/8/2011, defines Tourism as a strategic sector, a priority for the socioeconomic development of the country. It is aimed at fostering Russian competitiveness as a tourism destination.

Tourism Destination Competitiveness (TDC) has been a topic of interest for many policy makers and tourism researchers around the world over the past two decades. Nonetheless, as more countries / destinations emerge on the map

and attempt to boost tourism, the competition for international visitors and their dollars/euros is increasing. As a result, destinations engage in increasingly sophisticated management and marketing strategies to become more competitive and all academic researchers tend to agree about the strategic importance of destination competitiveness (Dimanche & Andrades, 2012), if a destination wants tourism to be a major avenue for development.

Addressing this fact and Russian priorities in the field, the resolution of NETOUR is to work with Russian universities, institutions and businesses in order to develop and sustain the tourism sector in Russia, and ultimately to enhance its competitiveness. To achieve this goal the role of university networks becomes crucial. The project was designed with a 3-year horizon, October 2012 - October 2015, although it has been conceived to last beyond the project implementation period.

With a very competitive TEMPUS funding scheme, only 8 of the 200 proposals targeting Russia as a partner country were awarded. It can be suggested that the sustainable development model which inspired NETOUR has been validated by the European experts who assessed the proposal together with the representatives of Russia's governing bodies. This is why we believe in the usefulness of presenting the NETOUR development model to the academic community, even at an early time when there are only intermediary results available.

In the next section, NETOUR's rationale and main objectives are described. After that, its methodology, defined to boost a sustainable change in Russian tourism sector, is presented in section two. Finally, interim conclusions about the experience derived from NETOUR implementation are presented, mainly concerning the coordination and management of the consortium, as well as the international cooperation, which is essential to afford successfully the challenges addressed by NETOUR.

1.1. The rationale for NETOUR and its objectives.

NETOUR is an initiative that arises from the firm belief that the sustainable tourism development of a country, encouraged by universities, can foster significant social, economic, and environmental benefits to that country. NETOUR authors believe that a well planned and sustainably managed tourism development in Russia, a country with a growing economy but with tangible social problems, could lead to further growth, and would contribute to impose Russia's international image through democratic values and its existing resources: History, heritage, nature, culture, etc. However, even as it may seem impossible for tourism to revitalise directly or indirectly an economy and a society, it has to be emphasized that tourism remains a strategic sector because of the many impacts it has on a country. It is of such significance that, as it was already mentioned, the Russian Federation (Order 644 of the Government, August 2,

2011) defines it as a strategic sector in its “Targeted Programme Development of Incoming and Domestic Tourism in the Russian Federation (2011-2018).”

Furthermore, universities are institutions where knowledge is created, managed, and disseminated; it is where the human resources who lead a country are trained and developed. University-level students are those people upon which the future of society depends.

NETOUR works with the following two premises: First, the relevance of tourism as a socio-economic development driving force and, second, the role of universities as stakeholders of social progress through knowledge. Subsequently, NETOUR aims at promoting social development in Russia with universities and through the tourism sector. To attain this goal, and based on the consortium partners’ tourism expertise, the project started with analysing the current situation of the tourism sector, both at higher education and professional levels. It aims at developing specific actions to promote significant and sustainable changes to be led by universities in the Russian tourism sector.

As society needs flexibility to adapt to on-going change, it needs knowledge-updating processes and new skill acquisitions to allow people to be effective actors of their environment. Consequently, universities must educate and also have a social mission and responsibility: They should meet the demands of the labour market. Thus, the universities’ capacity to propose education and training suitable to the needs of the labour market becomes a cornerstone for the welfare of a country. This is where NETOUR provides its main contribution. More specifically, the general objectives pursued by NETOUR may be described as follows:

1. To diagnose Russian university curricula in the fields of tourism management, as an engine of progress and development, in order to identify weaknesses and strengths.
2. To implement revised curricula under the principles of the EHEA, the EU Strategy 2020, focused on market and industry needs.
3. To improve skills and therefore, the employability of Russian tourism students.
4. To enhance dialogue between universities and companies that will ensure continuous curriculum and human resources updating.
5. To increase the level of commitment of Russian governing bodies to ensure the implementation of changes beyond the project’s timeline.
6. To build up stable education and academic networks between EU leading Institutions in the fields of tourism management and Russian institutions that have potential influence on their geographic area, therefore creating a multiplying effect.

Thus, NETOUR aims at offering guidelines to improve tourism management syllabi in Russian universities. These syllabi are intended to favour interaction among university students and tourism companies and to further promote employability and to show to businesses how university graduates can help increase their competitiveness.

In order for tourism management syllabi to be efficient and to provide competitive advantages to businesses for hiring university graduates, they must include innovations in the field. Therefore, the syllabi will offer real advantages and add differential elements to the students' professional skills. Moreover, NETOUR was designed to favour innovation and knowledge transfer between universities, tourism firms and tourism policy makers. Suitably, the knowledge generated by research projects conducted by European members of the NETOUR consortium is to be used in order to update curriculum contents for students through seminars and for business people, promoting the development of lifelong learning in society at large.

In addition, NETOUR addresses the necessity of involving policy-makers in planning every curricular reform. This is due to the fact that reforms have a position in the social, economic, and legal contexts. This situation establishes the framework in which tourist businesses operate and determines the training needs that should be met by universities. Thus, NETOUR plans to channel with the universities the dialogue between policy makers and business people. The intention is to provide policy makers with training courses that enable them learn about the tourism sector and its problems in depth. As a result, they will be able to formulate laws responding to the reality of tourism issues or to university educational matters in tourism.

Finally, NETOUR bets on better preparing students so that they will be able to improve the sector and as a result have an impact on society as a whole. So, it plans to put forward a real and effective curricular reform that will contribute to Russian society. It proposes the following: to analyse in order to understand, to design in order to execute, to learn by executing, to reflect upon experience and to suggest the changes to be introduced to improve the sector. In the end, NETOUR's philosophy starts by working together with the Russian partners in order for them to lead the development of this model, and then to follow it in the future, extending its benefits to other Russian universities and to the country as a whole.

2. NETOUR METHODOLOGY

Since the general purpose of NETOUR is to work with Russian universities and businesses to help improve (1) university products (curricula and student expertise), and therefore the employability of Russian tourism students, and (2) tourism organizations' efficiency through a qualified workforce, in order to develop and sustain the tourism sector in Russia, tourism professionals and

academics will work together to respond to the growing needs of the Russian tourism sector.

As already described, this ambitious objective has been approached through a number of specific objectives. To materialize them, a series of specific actions have been planned for the three years of the project horizon, and 21 deliverables –reports, handbooks, international conferences or a national data centre to monitor tourism in Russia- will be provided.

Two lines of action were defined to improve Russian university curricula. The first line of action, consisting of a review of the tourism curricula being currently delivered by Russian university partners, identifies their adequacy to EHEA standards and the principles of the Strategy 2020. The second consists in reviewing the relevance of the curricula delivered to industry and markets needs. For the first analysis, a checklist will be produced including specific standards promoted within the EHEA, in the course of the Bologna Process, and the Strategy 2020. The results of this study will allow the consortium to identify the weaknesses to be compensated. The second analysis is a more complex one, as it requires a previous detection of needs on the tourism sector. For this purpose, an analysis of the tourism sector in the areas of influence of the Russian partner universities (current demand and supply, main competitors at destination level) was planned. This analysis will be based on secondary information, plus additional data collected by Russian partners. Tourism sector analysis will focus on the three main tourism products considered as strategic for the Russian Federation: cultural, nature-based and business tourism. Additionally, the tourism sector analysis will be broadened with information gathered through tourism management alumni from Russian university partners. For this purpose, an online survey will be conducted to learn about their current position in the sector and in the companies they work for; their knowledge needs will also be assessed. Each Russian partner will develop 200 online interviews, among the last 10-year graduates, randomly selected. A sample of 20 interviews for each of the last 10-year graduated classes will be searched. This will produce a database containing data for 1200 alumni, 120 per year within the past decade. Alumni are involved in the detection of the sector needs because they can offer first-hand information on both the knowledge gained at college which has proven to be more useful, and the potential knowledge they consider they lack. Furthermore, this first contact with alumni will be used to develop a number of deliverables, which are planned to be offered during NETOUR implementation. Specifically, contacting university alumni during the project's first year will be used to develop a mentoring programme in the second year.

After curricular revision, which is being developed during the first year of the project, the specific NETOUR objectives aim at implementing several strategies to improve the present situation of tourism sector, as well as to foster a positive change and to increase international cooperation between universities for the long term, during the second and third year of the project implementation.

Additionally, in order to improve skills and, consequently, the employability of Russian tourism students, a number of actions will be developed which will enhance students theoretical education and practical skills. Thereby, concerning theory, updated teaching materials will be produced such a handbook about tourism management, which will include case studies with data gathered by students. Additionally, concerning training, NETOUR proposes a mentoring programme promoting links between former alumni and the university. That is a way of fostering the creation of university community where a university learns what is relevant from professionals who were their former students, while students return to the university to update their knowledge.

As a result of all the designed actions, NETOUR proposes an alternative university community model, in which the relation between alumni and university remains life-long to co-create joint value. So for instance, the mentoring programme within NETOUR goes beyond traditional internships, as in this case, student supervisors are not exclusively academic; furthermore, each fellow will have a mentor in the host company who will help throughout the internship. Mentors will be outstanding professionals in the field of tourism, picked among the alumni corps and recruited during the phase of diagnosis. Students' assignment will consist in analysing a problem, previously defined by the company, and elaborating a technical report on how to solve the deficit. Consequently, this programme is expected to improve college-industry relations and increase student skills and employability. On the other hand, continuous curriculum and human resources development is guaranteed under this university community model.

As part of the above-described actions, an updating course for tourism professionals is also been foreseen for the second year of the project horizon (meeting lifelong learning principles). This course will count on internationally renowned experts in the field of tourism who are members of the teaching boards of the universities participating in NETOUR. The course is also aiming at recognizing mentor contributions across the mentoring programme.

While NETOUR's broad objective is to improve curricula through exhaustive analysis based on reality and experience, the efforts might vanish after the project lifetime unless an institutional frame is established in which the proposed reforms find a future projection. In this sense, NETOUR is supported by the Russian State University of Tourism and Service (RSUTS), the main methodological centre of service and tourism curriculum design of the Russian Federation. RSUTS leads and unites over 460 educational institutions of the Russian Federation specializing in tourism and service training. Furthermore, NETOUR foresees future sustainability of the mission by attempting at increasing the level of commitment of Russian governing bodies; this will ensure implementation of changes beyond the project's lifetime. Therefore, NETOUR planned the organization of workshops where decision-makers in the fields of tourism and education, plus other stakeholders (tourism managers, both public

and private, as well as tourism entrepreneurs, museum managers, natural park managers, etc.) are invited, in order to enhance cooperation between university and society within the realm of tourism. The diagnosis carried out about the tourism situation from both academic and professional perspectives, will also be presented at these workshops.

Since NETOUR, as a consortium, will attempt to last beyond the project lifetime, a second broad objective of this project is to build up stable education and academic networks between EU leading institutions in tourism management and Russian institutions that have potential influence on their geographic area, therefore creating a multiplying effect. With this purpose, two main actions were planned: (1) Organizing an international conference in Sochi to reinforce networking within NETOUR and to open this network to other universities within the Russian territory and beyond. (2) Establishing a data centre to continue the data collection process initiated by NETOUR, about the tourism sector analysis, to help universities respond to society's changing needs. This data centre will be located in RSUTS, with branches in other partner universities, so collection data points are spread all over the project's action territory.

Last but not least, in order to achieve NETOUR's goals, an action plan was designed, involving all parties interested both in university product improvement (curricula and student expertise) and in the growth of tourism organizations' efficiency through a qualified workforce. This plan of action has been designed on the basis of a pedagogic philosophy agreed upon and shared by all NETOUR members. The underlying principle is that all people, be they teachers, students, entrepreneurs or policy makers, who are motivated for learning, are the basis for social progress.

NETOUR suggests a number of actions to awaken people's motivation for learning while offering training programmes so that target audiences, either academic, students, employers or decision makers, can gain the necessary skills to successfully face learning challenges (Csikszentmihalyi, 1996). Furthermore, NETOUR expects to offer, on a regular basis, the necessary feedback for individuals to track their own progress while developing their tasks. In that way, motivation remains in the course of the learning process as learners feel rewarded by their own achievements and, accordingly, will be keen on repeating the experience of personal growth through learning. According to this approach, the question is how to challenge stakeholders to motivate their learning? NETOUR considers that in terms of motivating lifelong learning, there are two key aspects to take into account: contents and methodology. For this reason, NETOUR suggests to operate on tourism curricula to make them more challenging, and to produce a better learning experience for students. Concerning contents, practical utility and adequacy to the sector needs must be ensured, for which a previous diagnosis proves necessary. Moreover, contents should be original and innovative, capable to catch target audiences' attention and interest. This will be achieved by bringing University research closer to industry needs.

Finally, in terms of the processes intended to ensure quality, the pedagogical approach adopted is not confined to the purely academic project, but also affects the basis of the monitoring carried out by UEx during the project implementation. For UEx, the biggest challenge is coordinating a large group to work on diverse and interrelated tasks, so that the delay of a task-force would not endanger the rest of the team. To meet this contingency, a continuous monitoring of the evolution of the work teams, which will be reflected in a calendar that will be visible to all partners in the virtual workspace at www.netour.eu, has been implemented. When a team is not meeting its objectives, the cause of the delay will be identified and the necessary assistance will be offered to get back on schedule. The assistance will consist in providing the necessary skills to carry out the potential tasks delaying the project, the necessary equipment to go forward, or, even the necessary qualified staff.

3. CONCLUSION

As discussed throughout this paper, NETOUR is a complex and challenging project which promotes a university community model aimed at working with universities and institutions to ensure that universities serve society, providing a qualified labour source, adapted to the real needs of the tourism sector, and able to guarantee lifelong learning.

Since the project is still under way, final results cannot be presented yet. However, from the project's early phases, some practical issues or difficulties can be identified:

- Language barriers. Outside European Union borders, in the partner country, it may sometimes be difficult to find representatives of the various stakeholders who can speak English fluently.
- The need to deal with various legislations even within the European Union. Each institution has its own rules and often these rules and procedures do not match the legal framework established by TEMPUS. However, although this means extra work, the TEMPUS programme is quite flexible and can be adapted to the specific situation of any of the partners in the consortium.
- The difficulty of meeting deadlines when the work teams integrate many members from very different countries. This demands extra work to monitor very closely the teams' progress. Thereby, it is highly advisable to divide the tasks into smaller ones and spread the responsibility among the team members.

Despite difficulties, there is no doubt that NETOUR proposes an innovative and ambitious model to contribute to a country's economic and sustainable development through a particular sector, tourism. At the very least, it responds to the call of this conference to "stimulate discussions of ideas and models for competitiveness and sustainable development in a turbulent environment."

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e-mail: stefano.decantis@unipa.it; mauro.ferrante@unipa.it**TOURISM STATISTICS AND UNOBSERVED
TOURISM: EMPIRICAL EVIDENCES IN SICILY**

JEL classification: L83, C83

Abstract

Despite its strategic importance, accurately measuring visitor attendance has been a challenging and problematic exercise for tourism managers for decades. Consequently, the primary aim of tourism statistics of accurately quantify tourism flows has been only partially achieved; indeed at a lower territorial scale tourism statistics appear less precise and accurate. The aim of this paper is: to introduce the concept of unobserved tourism, by highlighting the main limits of official statistical systems (with a special focus on the European statistical system on tourism statistics; to formalize a theoretical model in which tourism nights and trips in a given destination are decomposed into observed and unobserved components, according to the current systems of tourism statistics. We define unobserved tourism, in terms of overnight stays, the sum of two components: the set of all the nights spent by tourists in unofficial establishments (unmeasured tourism), and the set of nights spent by tourists in official establishments, but deliberately concealed from public authorities, mainly for fiscal reasons (underground tourism). Some empirical evidences derived from surveys aimed at quantifying the magnitude of unobserved tourism in Sicily are described in order to illustrate the different approaches which can be adopted to explore the issue of unobserved tourism.

Keywords: *accommodation statistics, sampling tourists, tourism indicators*

1. INTRODUCTION

Having more and reliable statistics is essential for policy-makers to make effective decision, for designing marketing strategies, evaluating the efficiency and effectiveness of management decisions, and measuring tourism throughout the regional/local economy. In the last decades there was a growing awareness that the weakness of the statistical data in tourism needed some major initiatives. However, despite the efforts demonstrated by national and international institution (WTO, 1994; European Communities, 1994; UNWTO, 2008; European Parliament, 2011), for improving the reliability and the comparability of statistical information on tourism, current statistics produced by national institutes seem to be still inadequate for destination management purposes, mainly at a local (sub-regional) level. Moreover, the increasing importance of tourism in many urban and rural areas has called into question the adequacy of official statistical sources for specific local planning needs. To date, to answer satisfactory to an apparent simple question such as “how many tourists visited in a given year a certain destination?” is still an open issue, both under the theoretical and the applied perspective, since simply counting the number of tourists in a destination is not as simple as one might initially think (Smith, 1995:16). At European level, the partial inadequacy of tourism statistics is demonstrated by the recent new Regulation (EU) No 692/2011 of the European Parliament and of the Council, concerning European statistics on tourism, which tries to establish a common framework for the systematic development, production and dissemination of European statistics on tourism (European Parliament, 2011: art.1). The new Regulation repeals Council Directive 95/57/EC and, on the one hand, highlights that the Union’s tourism industry occupies an important place in the economy of the Member States, with tourist activities representing a large potential source of employment. On the other hand, the Regulation affirms that any appraisal of its competitiveness requires a good knowledge of the volume of tourism, its characteristics, the profile of the tourist and tourism expenditure and the benefits for the economies of the Member States. It appears that due to: a) the growing importance of short trips and same-day visits contributing substantially in many regions or countries to the income from tourism, b) the increasing importance of non-rented accommodation or accommodation in smaller establishments, and c) the growing impact of the Internet on the booking behaviour of tourists and on the tourism industry, the production of tourism statistics should be adapted and the recommendation 95/57 CE overcame. However, the weakness of tourism statistics highlighted by the European Parliament Regulation, and by several other authors (Lickorish, 1997; Vaccina, et al., 2011), are not only due to the partial inadequacy of methodologies for the collection of information of the different Member States, since they are related also to the complex nature of tourism phenomenon itself, and many of these issues still need to be overcome, under the logical and the methodological perspective. The aim of this paper is to introduce the concept of un-observed tourism and the problems related to its estimation. Next section discusses the main limits of official statistical sources in Europe, and it defines the concept of

un-observed tourism, by formalizing a conceptual framework for un-observed tourism, both in terms of overnights, and in terms of tourists. The approaches undertaken in several empirical researches aimed at estimating the magnitude of unobserved tourism in Sicily and the main results are presented in the third section. Final comments conclude this work.

2. THE TRIPS-ARRIVALS (T-A) MODEL FOR THE ESTIMATION OF TOURISM TRIPS AT LOCAL LEVEL

The collection of information on tourism, at European level, is related both to the demand side, and to the supply-side of tourism market. However, statistical sources on the demand side do not give any information at sub-regional level, since they are based on sampling surveys that are not designed to give local information. This implies that the only available local information are provided from the supply-side statistics on guests in collective establishments. However, they are affected by several problems: first, no information on the motivation of the stay is collected from the supply-side, making it impossible to distinguish tourists from other guests (e.g. seasonal workers, students, etc.). Second, not all tourists stay at collective accommodations, and those who do not might have very different patterns of behaviour than those who do. Some kind of accommodations (e.g. non-collective, and private accommodations), in fact, are not included in the survey from the supply-side at all, such as second houses, vacation houses, boats, relatives and friends houses, and so on (Hall, Müller, 2004; Gallent, Tewdwr-Jones, 2000). We will call this component of tourism demand “unmeasured tourism” (Parroco, Vaccina 2004), according to the terminology used in the field of un-observed economy (OECD, 2002). Third, as for many other economic activities, accommodation manager may choose to declare only part of their guests in order to avoid direct or indirect taxation. We will call this component “underground tourism” (Parroco, Vaccina 2004). Fourth, visitor while on a trip might stay in more than one collective accommodation, resulting in an overestimation (i.e. the “double counting effect”) of the number of visitors and an underestimation of the total duration of the visit within the destination considered (Pearce, 1995; Lickorish, 1997; Parroco, Vaccina 2004). Given these considerations, we formalize a conceptual model of actual tourism in a destination/region, by expressing the above problems in terms of parameters and/or quantities to be estimated.

2.1. *The Nights-Presences (N-P) equation*

The unavailability of direct information (derived from demand-side surveys) on tourism flows at sub-regional level, determines the habits of using supply-side statistics in order to quantify the magnitude of tourism at a destination/local level. Indeed, the above cited problems which affects statistics on guests in collective establishments led us to define the concept of unobserved tourism, as that part of tourism which cannot be measured through supply-side statistics. In order to formalize the differences between the number of guests in collective establishments and the number of tourists in a given destination, the following framework aims at highlighting the main differences between guests and tourists in terms of quantities and parameters that need to be estimated.

Let $^{obs}P_{i,t}$ be the total number of nights spent by guests in official collective establishments in the i -destination/region, in the time interval t (e.g. one year), some of these nights can be made by tourists (in a proportion equal to α_0), and some other by other kind of guests (e.g. seasonal workers, crews on public modes of transport, students, etc.) according to UNWTO definition of classification of inbound travellers (UNWTO, 2008:18). So the nights spent by tourists in official establishments ($^{obs}N_{i,t}$) will be equal to $\alpha_0^{obs}P_{i,t}$; where $0 \leq \alpha_0 \leq 1$. As above told, the un-observed tourism can derive both from the nights spent in un-official establishments (e.g. private houses, boats, second houses, etc.), and from the nights concealed from public authorities mainly for fiscal reason (OECD, 2002, 13). We will call the former component “unmeasured tourism” ($^{unm}N_{i,t}$), and the latter “underground tourism” ($^{und}N_{i,t}$) (Parroco, Vaccina, 2004). These two components constitute what we call un-observed tourism ($^{unobs}N_{i,t}$). So the actual number of nights spent by tourists in a given destination/region i , in the time interval t considered, would be equal to:

$$^{tot}N_{i,t} = ^{obs}N_{i,t} + ^{unobs}N_{i,t} = \alpha_0^{obs}P_{i,t} + ^{unm}N_{i,t} + ^{und}N_{i,t} \quad (1)$$

where $^{unobs}N_{i,t}$ represents the un-observed nights spent by tourists in the destination/region i , during the time interval t . For simplicity we will call this expression as the Nights-Presences (N-P) equation. However, if we consider the available official information provided, only the first aggregate is known $^{obs}P_{i,t}$. The motivation coefficient (α_0), the unmeasured, and the underground components are unknown, and need to be estimated (for a brief review of the methods proposed for the estimation of these components, see Vaccina et al., 2011).

2.2. *The Trips-Arrivals (T-A) equation*

If for some purposes it could be more important to know the number of nights spent by tourists in a destination/region, for many planning and management issues, it is essential to know the number of tourism trips made, in a given time interval, in the destination/region considered. The problem of converting available information on guests arrivals in trips, is not only related with the lack of the information on guests' motivations, but also with the implications of tourists mobility. To convert guests into trips, it is necessary to introduce also a coefficient which take into account for the average number of establishments (official and unofficial) used by tourists during their visit within the destination/region considered.

Let be ${}^{obs}G_{i,t} = \alpha_i({}^{obs}A_{i,t})$ the number of tourists arrivals registered in official accommodation establishments (where $0 \leq \alpha_i \leq 1$ represents the proportion of guests arrivals ${}^{obs}A_{i,t}$ with touristic motivations), in the i -destination/region, during the time interval t , and let be β the average number of establishments used by tourists during their visit within the destination/region considered ($\beta \geq 1$). The number of tourism trips ($TRIPS_{i,t}$) in the destination/region i , during the time interval t , would be equal to:

$$TRIPS_{i,t} = ({}^{obs}G_{i,t} + {}^{unobs}G_{i,t}) / \beta = [\alpha_i({}^{obs}A_{i,t}) + {}^{umm}G_{i,t} + {}^{und}G_{i,t}] / \beta \quad (2)$$

where: ${}^{umm}G_{i,t}$ is the number of tourists which used establishments for which information on arrivals and nights spent are not collected ("unmeasured tourism"); and ${}^{und}G_{i,t}$ is the number of tourists which used official accommodation establishments, but were not declared to public authorities, mainly for fiscal reasons ("underground tourism"). For simplicity we call this expression as the Trips-Arrivals (T-A) equation. Supply-side surveys usually provides information only on the number of guests arrivals in official establishments (i.e. ${}^{obs}A_{i,t}$); on the contrary, the remaining aggregates needs to be estimated. Moreover, information about the coefficient β (i.e. the average number of accommodation establishments used by tourists during their stay) become really relevant. This issue falls into the broader phenomenon of tourists mobility (Lue et al., 1993; McKercher, Lew 2004); a topic which is almost ignored by actual official statistics, but which have important implication not only for the estimation of tourism trips at sub-regional level, but also for logistic and tourism services provisioning and management.

2.3. *The Average Duration of Visit – Average Length of Stay (ADOV-ALOS) equation*

Finally, another important aggregate usually considered as an indicator of tourism behavior, is given by the so-called “average length of stay” (*ALOS*), defined as the ratio between the overnight stays and arrivals: ${}^{obs}ALOS_{i,t} = {}^{obs}P_{i,t} / {}^{obs}A_{i,t}$. However, this index, usually read as an indicator of the length of the trips in the destination/region considered, for the problems above highlighted (i.e. unobserved tourism, and tourists mobility), is only a measure of the “average length of stay” in official accommodation establishments. On the contrary, the “average duration of visit” (*ADOV*), in the destination/region i , during the time interval t considered, according to our framework would be given by the ratio between equation (1) and (2). Subsequently, we have:

$$ADOV_{i,t} = \frac{{}^{tot}N_{i,t}}{TRIPS_{i,t}} = \beta \frac{\alpha_0 ({}^{obs}P_{i,t}) + {}^{unm}N_{i,t} + {}^{und}N_{i,t}}{\alpha_1 ({}^{obs}A_{i,t}) + {}^{unm}G_{i,t} + {}^{und}G_{i,t}} = \quad (3)$$

$$= \beta \frac{\left[\frac{\alpha_0}{\alpha_1} {}^{obs}ALOS_{i,t} \times \alpha_1 ({}^{obs}A_{i,t}) \right] + ({}^{unm}ALOS_{i,t} \times {}^{unm}G_{i,t}) + ({}^{und}ALOS_{i,t} \times {}^{und}G_{i,t})}{\alpha_1 ({}^{obs}A_{i,t}) + {}^{unm}G_{i,t} + {}^{und}G_{i,t}} \quad (3.1)$$

We call this expression as the Average Duration of Visit-Average Length of Stay (ADOV-ALOS) equation, which expresses the average duration of visit, in the destination/region i , during the time interval t considered ($ADOV_{i,t}$), as a weighted mean of the average length of stays (of tourism trips) in the different types of establishments/situations considered (official, unmeasured, underground), multiplied by the β coefficient. The weights are given by the number of guests arrivals (official, unmeasured, underground). It should be noted that if the β coefficient would not be taken into account, the weighted mean of the different *ALOS*, represents the average length of stay in the different establishments/situations considered (official, unmeasured, underground). Also in this case, the only known component is ${}^{obs}ALOS_{i,t}$.

3. EMPIRICAL EVIDENCES FROM THE SURVEY ON INCOMING TOURISM IN SICILY

In order to determine the actual magnitude of tourism in Sicily, and to quantify the relevance of unobserved tourism in the island, in the period between 2009 and 2010, thanks to a research project co-founded by the Italian Ministry of University and Research, the research group of the University of Palermo and Catania, composed mainly by social statisticians, planned a survey covering the whole Sicily. The survey aimed to estimate the actual magnitude of tourism in the Island, trying to quantify two of the main biases related to statistics on guests

arrivals: the double counting effect (i.e. the β parameter), and the “un-observed tourism” (particularly, the un-measured component, i.e. ${}^{umm}G_{i,t}$, and ${}^{umm}N_{i,t}$). For the survey on incoming tourism in Sicily, a complex Time Location Sampling (TLS) design was adopted, given the mobile and particular nature of tourists population (see De Cantis, et al. 2010; Kalsbeek, 2003). The units of interest were represented by Italian (not resident in the Island) and foreign tourists leaving the Island at the end of their vacation. In this way it was possible to collect direct information (from the demand-side) related to the whole period spent in Sicily, through a direct interview, allowing to reduce the recall bias, which usually affect many demand-side surveys (Rylander et al., 1995). A detailed description of the sampling design is contained in De Cantis, et al. (2010). The insularity of Sicily allowed us to select almost all the places from which it is possible to leave the Island, namely: the airports of Palermo, Catania, and Trapani, the ports of Palermo and Catania, and the Strait of Messina (only the two airports of the two small islands Pantelleria and Lampedusa were not included in the survey). The periods covered by the survey were selected according to official data on tourists flows in the Island: Spring, Summer, and Autumn, during which more than the 80% of official tourists flows are concentrated. The research instrument was represented by a questionnaire of 29 items. The questionnaire was divided into different sections: filter questions and organization of the trip; motivations and expectations; type of holiday (sea and sand; cultural, etc.); intra-regional mobility and type of establishments used; expenses; satisfaction. The specific section of the questionnaire related to the collection of information on tourism mobility and on un-observed tourism is presented in figure 1.

Places visited	Nights spent	Official establishments						Un-official establishments			
		01. Rural facilities	02. Holiday or work camp	03. Hotels and similar establishments	04. Camping	05. Bed & Breakfast	06. Youth Hostel	07. House/Room rented	08. Relatives or friends house	09. Second home	10. Other (specify)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	..

Fig. 1. Questionnaire section on tourism mobility

In this section, the tourist was asked to specify all the places (municipalities) which he/she visited during his/her trip, with at least one overnight stay. For each places visited he/she was asked to specify the number of nights spent, and the type of accommodation establishment used, to be able to distinguish between official and un-official establishments. Through this section it was possible to relate the information collected to the two topics of interest: tourism mobility (i.e. the β parameter) and un-measured tourism (i.e. ${}^{umm}G_{i,t}$, and ${}^{umm}N_{i,t}$).

Between Summer 2009 and Spring 2010 a total of 3,935 valid interviews were collected (i.e. incoming tourists in Sicily). Although the survey had several research aims, which are presented in another work (Oliveri, De Cantis, 2013) the in this paper we present some first results in order to implement the T-A model, by highlighting both the un-measured component of tourism demand in Sicily, and the effects produced by tourists mobility within the Island. In table 1 data related with the number of visits, with the nights spent, and with the average length of stay of tourists interviewed in Sicily, by accommodation establishment category are presented.

Table 1. Results in terms of stays and overnight stays by accommodation establishment category, from 3,935 interviews to incoming tourists in Sicily, Summer – Autumn 2009, Spring 2010.

<i>Accommodation establishment category</i>		<i>Stays</i>	<i>Overnight stays</i>	<i>Average length of stay</i>
<i>Official establishments</i>	Rural establishments	152	589	3.88
	Holiday camps	24	200	8.33
	Hotels	2,615	11,071	4.23
	Camping	377	1,183	3.14
	Bed and Breakfast	1,023	3,359	3.28
	Youth hostels	46	129	2.80
<i>Un-official establishments</i>	House or room rented	461	4,607	9.99
	Relative and friends houses	1,354	12,587	9.30
	Owned houses	307	4,502	14.66
	Other un-official establishments	126	417	3.31
Total	6,485	38,644	5.96	

Average duration of visit in Sicily ($ADOV_{i,t}$) = $38,644/3,935 = 9.82$

According to the T-A model, it is possible to quantify some of the aggregates contained in the three equations of the model. Regarding the N-P equation, a total of 38,644 nights ($^{tot}N_{i,t}$) were spent by incoming tourists sampled in Sicily, during the time-interval considered. These are only partially measured by official statistics on guests arrivals, since un-official establishments are not covered by supply-side statistics ($^{unm}N_{i,t} = 22,113$), resulting in a sampling share of unmeasured nights equal to the 57% of total nights spent in Sicily by tourists interviewed. Moreover, nights spent in official establishments can be partially concealed to public authorities for fiscal reasons, but our method and results do not allow to separate the underground and the official components, resulting in total of 16,531 nights which could be in some measure declared or underground ($\alpha_0^{obs}P_{i,t} + ^{und}N_{i,t} = 16,531$). With reference to the second equation (i.e. the T-A equation) of the model, a total of 3,935 tourism trips ($TRIPS_{i,t}$) sampled made 6,485 stays, distributed among several establishments categories, resulting in a value of the average number of stays (β) almost equal to 1.65. The stays in official establishments (i.e. $\alpha_1^{obs}A_{i,t} + ^{und}G_{i,t}$) resulted equal to 4,237, whereas 2,248 are the un-measured stays ($^{unm}G_{i,t}$). Finally, for the ADOV-ALOS equation,

with a total of about 38 thousands nights spent in Sicily by tourists interviewed, it resulted an average duration of visit ($ADOV_{i,t}$) in Sicily equal to 9.82 nights. The average length of stay ($ALOS_{i,t}$), instead, varies among the different establishment categories, resulting in a value of 3.90, in official establishments, and in a value of 11.65, in un-official establishments.

As above told, official data on guests in accommodation establishments give information only on arrivals, presences, and average length of stay in official establishments), as shown in table 2. The average length of stay resulting from official data (table 2) is quite similar to the average length of stay in official establishments, derived from the survey on incoming tourists (table 1). However, the average length of stay in un-official establishments resulting from the survey is about three times the official ones. This example empirically shows the biases which occurs when data on guests arrivals, overnight stays and average length of stay, are used to quantify and characterize tourism flows in a given destination.

Table 2. Arrivals, overnight stays, and average length of stay of non Sicilian guests (residents in other Italian regions and Foreigners) in official accommodation establishments in Sicily, year 2009.

Establishment category	Arrivals	Overnight Stays	Average Length of Stay
Hotels and similar establishments	2,491,373	8,325,020	3.34
Other collective establishments	319,508	1,320,144	4.13
Total	2,810,881	9,645,164	3.43

Source: Osservatorio Turistico Regione Siciliana, 2011.

4. COMMENTS AND CONCLUSIONS

Increasingly regional tourism authorities are interested in regional statistics. However, as highlighted in this work, at sub-regional and local level demand-side statistics are not provided by the European system of tourism statistics. This determined the habits of destination managers, policy makers, and researchers, of using accommodation (supply-side) statistics to evaluate tourism demand. However, the use of supply-side information to evaluate demand-side features can determines conceptual and practical mistakes. Some of these issues are getting recognized by major institutions, such as the European Travel Commission (ETC) and Eurostat. For example, the recent quarterly report published by the ETC on European tourism – trend and prospects (ETC, 2010) in comparing the results of the US Department of Commerce, reporting a decline of US outbound travel to Europe, with the results of the TourMIS, which indicated an increase of US arrivals in Europe, and a reduction of the average length of stay, commented that: “one plausible way to read the data is that US travellers are participating in multi-leg European trips with shorter stay in each destination” (ETC, 2010:16). However, despite the phenomenon of multi-destination trip is

being recognized, there are still no official sources of information able to measure the magnitude and the features of this phenomenon, neither at a national (visits to several regions, municipalities, etc.), nor at an international (visits to several countries) level.

Regarding the un-observed component of tourism, related to the use of un-official establishments (namely, the un-measured tourism), the new Regulation (EU) No 692/2011 of the European Parliament, put the attention to the non-rented accommodations, meaning, *inter alia*, accommodation provided without charge by family or friends and accommodation in owner-occupied vacation homes, including time share properties (European Parliament, 2011:19). According to the new Regulation, the data to be transmitted by the Member States shall related not only to the capacity and occupancy of tourists accommodation establishments, but also to tourism nights spent in non-rented accommodation. To date, however, nor in Italy, nor in the other European countries, no information on un-measured tourism (nor on underground tourism) are available, and the way in which member countries will collect and provide these information is still an open issue.

The T-A model allows to face with the problem of quantifying the number of tourism trips made in a given destination by highlighting the lack of official supply-side tourism statistics. Next challenges are related to the estimation of coefficients and quantities presented in the equations, and to the linkages between supply-side and demand-side information. With reference to the motivation coefficients (i.e. α_0 , and α_1) it should be kept in mind the characterization of the destination/region. In tourism resorts, it could be assumed that all guests are tourists (i.e. $\alpha_0 = \alpha_1 = 1$); however, this hypothesis would be unreliable in urban destinations where other guests (e.g. workers) are likely to visit the destination and stay in collective establishments. In these cases, an estimate of α_0 and α_1 , obtained for example through a sample survey on official establishments would be required. The unmeasured component of tourism demand is closely related to the presence of the so-called “un-official establishments”, such as second houses, rooms or houses rented. The estimation of the number of second houses in a given destination/region, for example through information coming from the census on population and housing could help to understand the magnitude of the unmeasured tourism in the destination considered. The underground component is even harder to quantify, since deliberately concealed to public authorities by accommodation establishments manager. This issue falls into the broader issue of measurement of un-observed economy (OECD, 2002), and, to date, no direct solutions have been proposed. Finally, regarding the β parameter, next to nothing is known about the number of destinations visited (nor of the number of establishments used) by tourists. However, for small areas, such as municipalities a value of $\beta = 1$, whereas for larger areas, such as tourism districts, or Provinces, an estimate of β would be required. By concluding, a deeper knowledge of tourists behavior is required to determine the values of these parameters and the factors affecting their variability.

Furthermore, the changing nature of demand and the increasing segmentation of the holiday market are also raising the need for more accurate, destination-based, information which integrate quantitative information on the magnitude of tourism with other more qualitative aspects of tourism behaviors.

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ANALYSING TOURIST MOBILITY: CURRENT ISSUES AND FUTURE CHALLENGES

JEL classification: L83, R12

Abstract

Tourism statistics are generally based on data collected only at one point of the travel, which, depending on the perspective of interest, can be the originating region or the destination one. Indeed, many tourism trips imply the visit to more than a single destination, since tourists move to visit several attraction to several destination or within the same destination. The analysis of tourist mobility presents several issues which are related both to the collection of information on multideestination trip behaviour and to the analysis of complex information such as the ones related with tourist itineraries. The present work aims at reviewing the main issues related with the analysis of tourist mobility among several destinations and within the same destination to several attractions. The problems related with the collection of information and with their synthesis are explored by reviewing the main works in academic literature which face with these issues. Moreover, the potential given by the use of tracking technologies to collect information on tourist mobility are described and the main methodological approaches for the analysis of such complex data are introduced. More in particular, some analytical tools for the analysis of multideestination trips and of travel itineraries are critically analysed by providing examples of empirical applications on these topics. The final aim is to provide a set of problems related with the analysis of tourist mobility and of the practical solutions in relation to several specific research aims are provided by highlighting merits and pitfalls of each approach.

Keywords: *tourist mobility, tracking tourists, tourism statistics*

1. INTRODUCTION

Tourism implies a movement of people in time and space, from their place of usual residence to a destination (or destinations). Surprisingly, the analysis of tourist mobility within one single destination and among several destinations has not been taken into account adequately, even though a deeper knowledge of tourists' movements is an essential prerequisite for logistics and for the management of the economic, social, and environmental impacts of tourism. Indeed, most of the models of pleasure trip behaviour are based on the hypothesis that tourists visit a single destination, even if this premise is rather unreliable. Tourism statistics are usually related to two places in the restricted space: the region of origin and the destination, thus disregarding the possibility, for the tourist, to make multi-destination trips. According to a simplified model of tourist mobility, official statistical sources use the concept of "main destination" in order to obtain the correspondence between where tourists come from and their destination. However, many pleasure trips imply visiting more than one single destination (inter-destinations) or several "attractions" within the same destination (intra-destination). Although the importance of knowing travel itineraries has been recognized for a long time (Leiper, 1989; Dietvorst, 1995; Fennell, 1996), relatively few studies have made an attempt to model spatial movements among several destinations and within the same destination. The main reasons for this lack are attributable to both the difficulties associated with the collection of information on multi-destination trips (Lew and McKercher, 2002), and on the lack of clarity on what is meant by "multi-destination" trip. As regards the collection of information, official statistics on tourism do not provide any kind of information on multi-destination trips and on trip itineraries, either from the supply side (statistics on guest arrivals), or from the demand side (which focus their attention mainly on the main destination visited). This means that in order to analyse the phenomenon, ad-hoc surveys need to be carried out. Indeed, many of the issues related to the analysis of tourism demand and of its segmentation should not ignore the number and the types of destinations visited during a single trip by tourists.

This work aims at analysing the main consequences of multi-destination trips on tourism statistics, and of describing both the "classical" and the emerging solutions in order to collect information and analyse multi-destination trips and travel itineraries. Some analytical measures and technological solutions are presented in order to face with the issue of tourist mobility, and the main implications under the empirical and methodological perspectives are finally discussed.

2. MULTIDESTINATION TRIPS AND TOURISM STATISTICS: MAIN ISSUES AND EMPIRICAL FINDINGS

As concerns the definition of multi-destination trip, the lack of clarity is attributable to the definition of the destination itself (Hwang and Fesenmaier, 2003). For example, whereas some authors (Mings and McHugh, 1992; Stewart and Vogt, 1997) focus their attention on the visits to the attractions within a destination, other authors (Oppermann, 1995) define the term destination in a wider sense, by including the whole region. In addition, Leiper (1989) points out that in order to qualify a stop as a visit it is necessary for the tourist to spend some time in that destination, or that there is some specific tourist interest in that stop. Moreover many studies have considered the overnights as a discriminating factor. Particularly, by referring to one of the most used aggregates to quantify tourist flows, that is the datum related to arrivals in accommodation facilities, the aggregation process by summing arrivals referred to different places (e.g. municipalities) determines a bias (Parroco, Vaccina 2005). Data related with guest arrivals, since they are derived from the sum of all the guests of official accommodation establishments will produce an oversized aggregate, if referred to the number of tourists who visited a specific area (province, region, country, etc.), and this bias will be greater the more extensive will be the territorial level and the greater the presence of overnight trips in several accommodation establishments. Indeed, the higher the territorial level (e.g. country) and the greater the propensity of tourists to take multi-destination trips, the greater will be this “double counting” effect. Parroco and Vaccina (2005) have underlined the matchlessness between data on arrivals of guests in collective accommodation establishments in a given region and the number of tourists in the same region. The main reasons are related to: a) the use of unofficial establishments (e.g. relatives’ or friends’ houses, unregistered rented houses and rooms, boats, etc.) for tourist purposes, which determines the so-called “unobserved tourism” (Vaccina et al., 2011), considering that information on this kind of flow is not included in official statistics on guest arrivals; b) the lack of information regarding guests’ motivations, which does not allow the distinction between tourists and other guests; c) the so-called “double counting” effect of arrivals which occurs every time a tourist changes an accommodation establishment during a single trip, thus being registered more than once.

Given the above mentioned problems, it follows the impossibility of measuring tourism demand through supply-side statistics. For example, Lickorish (1997) highlights that although the World Tourism Organization (UNWTO) report brought back, for 1990, a total of 15 millions of visitors in Europe coming from United States, the European Travel Commission (ETC) using the data of the U.S. Government showed a total under 7 million. Both values were correct but while the ETC was referring to the individuals who carried out a trip in Europe, the UNWTO reported the total number of border crossing registered in Europe, by determining the possibility of counting more than once the same individual.

This double counting effect has implications also in the meaning of the datum related with touristic presences, given by the number of nights spent by guests in the accommodation facilities of a given locality. Indeed, it is common practice to analyse the average length of stay, given by the ratio between presences and arrivals as an indicator of the overall duration of the trip. This interpretation not just is incorrect because of the problem generated by the replication effect, but it can also lead to totally misleading interpretations. In fact, if it is true that it exists a direct relationship between duration of the trip and number of stops (with overnight stay) carried out during the same trip, the increase of the overall duration of the trip could imply a reduction of the average length of stay rather than an increase. To overcome these problems, some authors (Pearce, Elliot 1983, Leiper 1989) proposed the use of some indexes for the analysis of the so-called “tourist circuits” at international level, some of which are described in section 4. However, a great potential for the analysis of tourist mobility is given by the use of new technologies.

3. NEW TECHNOLOGIES AND TOURIST MOBILITY

Nowadays, it is possible to overcome some of the above described problems thanks to the development of new technologies as monitoring systems, since they could provide a significant contribution to data collection. New technologies – such as mobile phones, Global Positioning Systems (GPS) and Geographic Information Systems (GIS) – could offer new opportunities, not only in terms of services and information available to tourists, but also in terms of opportunities for collecting, analysing and visualising geo-referenced data related to tourism and for tracking touristic movements. The recent development and spread of small, cheap and reliable tracking devices has favored an increasing volume of spatial research in general and in tourism fields more peculiarly. The efforts made in order to develop commercial applications for tourists, including georeferenced mobile information systems or electronic guidebooks, are in progress by the end of the 1990s (Shoval and Isaacson, 2010).

The most famous and commonly used GPS is that of the U.S. Department of Defense (DOD). Fully operational since 1994, it was originally conceived as a military navigation system and only in 2000 the DOD opened up the system for individual and commercial applications across the globe. At the same time, the private sector finished establishing infrastructure for the operation of cellular phones. The commercial use of these devices started at the beginning of the 1980s but it was limited primarily to business purposes because of the high price. Cellular phones prices began to drop drastically in the mid 1990s and today they are owned by everyone in the developed countries. GPS and other tracking technologies are used in a wide variety of fields aside from tourism, such as environmental health, medical field like physiology and cardiology, as a tool to assist in navigation for visually impaired and blind pedestrians. However, most of the research conducted has been in the field of transportation studies, while the collection of data and the study of the spatial activities of pedestrians using

advanced technologies have been less common. One possible explanation for this is that gathering data from pedestrians is more difficult than doing so from motor vehicles. This, however, has now changed thanks to the technological advances that enabled the manufacturing of small, cheap, lightweight and highly sensitive devices.

Existing tracking technologies are classifiable into two large categories: terrestrial and satellite (GPS). The first type consists of a series of antennas - radio frequency sensors (RF) - located throughout the area and it is based on the principle according to which, electromagnetic signals travel at a known speed along a known path. According to the received signal from the antennas, it is possible to define the position of the observed object. The widespread use of cellular phones, based on terrestrial radio systems which permit localization, has enhanced the importance of these technologies in order to track tourists' movements, both at an individual level and at an aggregate level (Shoval and Isaacson, 2010). On the other hand, GPS is a satellite positioning and navigation system that, through a dedicated network of artificial satellites in orbit, provides to a terminal (or GPS receiver) information about its geographical and time coordinates, in every weather condition, everywhere on earth or in its nearby area, where there is an unobstructed contact with at least four satellites of the system. This occurs through a radio signal transmission from each satellite and processing the received signal from GPS receiver (Biagi, 2009).

Recently some studies were carried out through the use of new technologies in order to obtain more detailed data about tourist flows and to fill the gap left by traditional surveys. These researches represent a new way to approach space-time analysis of mobile population such as tourists. Some examples of these studies are those of Edwards et al. (2009) and Shoval and Isaacson (2007) about GPS tracking, Reades et al. (2007) and Ahas et al. (2011) about cellular phones as tracking devices, Van der Spek and Nijhuis (2010) about GPS and GIS, but also the study made by O'Connor (2002) on the Alge Timing System, a technology used in sport field that consist of sensors spread along the path and of sensors placed on the ankles of pedestrians, which represents a useful tool – especially in closed areas (such as parks) – for monitoring visitors' behaviours. Moreover, in 2010, Shoval and Isaacson (2010) wrote the first book about the implementation of advanced tracking technologies for the analysis of tourists' outdoor movements in time-space and their activities.

3.1. Data coming from Global Position System (GPS) devices

International literature searches out the opportunities offered by new technologies to statistical survey on tourism. Particularly, GPS appears a simple and at the same time detailed tool of detection for tourist flows in a space-time dimension. It permits to visualise on a geo-referenced map the paths and the stops at the various times of the day. These devices, indeed, are able to record time, speed, direction, distance, position and height. They also permit to note the dwell time at each site and the travel time of the various routes, also distinguishing the

different means of transport used. This allows to identify the characteristics of tourism into a specific destination and so the tourist behaviour in terms of mobility. Another relevant aspect under the information collection perspective, is given by the fact that the device doesn't affect tourists' behaviour. Unlike other techniques such as direct observation, tracking through GPS is less invasive. Data collected through these devices are subsequently more reliable than those collected through traditional methods which are usually based on retrospective and administrative surveys, which can be affected by several problems (e.g. recall bias). In other words, constant tracking realised in real time allows to delete or however greatly reduce several biases, generating reliable and detailed data. These remarks also derive from the feedback received, in the different studies analysed, by comparing the data collected through GPS tracking and those ones observed by questionnaires and interviews (e.g. Edwards et al., 2009; Shoval and Isaacson, 2010). The degree of accuracy of space-time data collected is such as to permit the creation of an extensive database from which implement further analysis, such as the study of the sequences of alignment of the events in terms of sequences of tourist activities in time and space and the identification of the prevailing routes (Shoval and Isaacson, 2010)

Some authors consider the relationship between the choice of accommodation and the travel itineraries at the destination or, more generally, between the space-time data and some categorical variables, as well as the differences between domestic and international tourists in terms of characteristics of movements (e.g. Edwards et al., 2009). Other authors (e.g. Shoval and Isaacson, 2010) analysed the creation of touristic groups according the features (sequence) of the activities made by tourists being detected.

In a nutshell, the integration of GPS technology within mobile phones (smart phones) feature which concerns the latest devices (past 5 years), makes it easier, thanks the large diffusion of these devices over the world, to use this technology like a system to collect data related to touristic movements. To give an idea of the magnitude of the phenomenon, a study of "Strategy Analytics" (Shah, 2012) finds that the number of smartphones in use in the world passed from 708 millions in September 2011 to 1.038 billions in September 2012: one person in seven owns it. This number will double from now to 2015.

3.2. Data coming from mobile phone traffic

Mobile phones can be used to carry out aggregate analyses on customer movements in the space-time dimension. Particularly, they are suitable for two kinds of analysis. On the one hand for statistical analysis about the activities which concern the antenna in a specific time, and, on the other hand, for the localization of a group of devices in a specific period and its movement among the antennas of the network.

The degree of detail is less than that one achieved through GPS and the tracking is possible only in small areas characterized by the presence of antennas. Through investigation of the so-called "Erlang data" it is possible to analyse

urban dynamics within the boundaries of space-time. These data are a measure of the use of the network bandwidth at level of antenna. The data collected can be linked to urban distribution of activities and also to different time bands in which it is possible to divide the day, to identify the ways of use of the city. It is still important to highlight that it is not simple to distinguish the tourists from the residents. An example of this application is the Estonian experience (Ahas et al., 2011) concerning the use of mobile positioning data for studying the time-space behaviour of people and tourists in the country since 2001. Since then these data have been used in various projects, research and art (Ahas et al., 2011).

4. MEASURES AND TOOLS FOR THE ANALYSIS OF TOURIST MOBILITY

In order to analyze multi-destination trips, some indexes have been used in tourism literature. Among the first indices used we find the Trip Index (TI) (Pearce and Elliott, 1983; Uysal and McDonald, 1989):

$$TI = \frac{D_n}{T_n} \times 100 \quad (1)$$

where: D_n is the number of nights spent at the destination considered, and T_n is the number of total nights spent during the trip.

This index represents a measure of the relative importance of the considered destination and its usage is recommended for tourists' segmentation (Uysal and McDonald, 1989), for marketing and destination promotion purposes, as well as additional information useful in order to distinguish tourists' characteristics and to analyse the itineraries undertaken.

A second index is the so called Main Destination Ratio (MDR) (Leiper, 1989) which analyzes the features of multi-destination trips at an international level. It is based on data collected in the region of origin and at the destination and it is defined as the ratio between the trips for which the region observed is the only one visited or the main and the total arrivals:

$$MDR = \frac{V_{ij}}{A_{ji}} \times 100 \quad (2)$$

where: V_{ij} is the number of trips which have had as main destination the i -th destination (information derived from the survey on the demand side provided by the j -th country generating tourism), whereas A_{ji} is the total number of border crossing made by tourists coming from the j -th country (measured through the surveys at the frontiers carried out by countries hosting tourism).

According to the author (Leiper, 1989), by mean of this index it is possible to provide a more complete picture of international tourism and to classify the different countries in predominantly main destination or secondary destinations.

Still, Oppermann (1992) proposes the use of a composite index to characterize touristic travel behaviours. The Travel Dispersal Index (TDI)

incorporates five variables characterizing domestic touristic behaviour and it is defined as:

$$TDI = LS + OD + A + T + TO \quad (3)$$

where: *LS* is the total length of stay in the considered country, *OD* represents the number of visited destinations with at least one overnight, *A* and *T* indicate respectively the number of the different types of accommodation facilities and means of transport used by tourists during their trip, and *TO* is a variable measuring the type of travel organisation.

The use of *TDI* is recommended to identify those tourist segments which have a greater impact on the different economic sectors of a country (Oppermann, 1992). However, this index presents several limits. First, its strong dependence by the average length of the trip in a specific country doesn't allow a direct comparison among different countries based on the values of the index. Moreover, further limits derive from the arbitrary definition of the weights, and from the aggregation criterion by sum which, implicitly, assumes the independence among the different elements. This hypothesis seems quite unlikely.

More recent studies (Hwang et al., 2006; Asero et al., 2011) have framed the phenomenon of the multi-destination trips within the network analysis framework. Different destinations visited are related to the nodes of a network and the routes made by tourists are seen as the links between the nodes of the network. Hwang et al. (2006) in the analysis of multi-destination trips in USA used the concepts of *centrality*, *connectivity* and *cohesion* and that of *structural equivalence*. If referred to a specific node of the network, the *centrality* denotes the degree of prominence within the network. On the other hand, if centrality is referred to the whole network, it describes the structural features of the whole net (Wasserman and Faust, 1994). In the field of network analysis, several measures for centrality have been proposed. The notions of *connectivity* and *cohesion* are related to the degree of density in the network structure and, in tourism field, they can be used to identify the presence of subgroups of destinations strongly connected to each other (Monge and Contractor, 2003). Finally, the notion of *structural equivalence* is referred to the comparison among different networks and to the degree of similarity among their structures.

On the other hand, the detailed and accurate trip data collected through GPS or Mobile Phones need to be opportunely analysed. Some authors suggest the use of techniques derived from others approaches rather than traditional statistical tools. Asakura and Iryo (2007), for example, proposed a simple index for describing and analysing a tour route in order to study tourists' travel behaviours. The authors start from the consideration according with which one of the simplest shapes of a tour route is a circle. When a circular route is observed at a specific point in the area, there are three possible relations between the circular route and the observation point:

1. the direction of the circular route is in a clockwise direction around the reference point;

2. the direction of the route is in an anticlockwise direction around the reference point;
3. the reference point is not located within the internal area of the circular route.

To identify these cases, the authors propose a Route Topology Index (RTI) which is defined respectively being equal to +1, -1 or 0, for each of the above three cases and so the corresponding RTI vector. In order to describe a more complex tour route, the RTI can be evaluated at multiple reference points. The i -th element of the RTI vector denotes the RTI for the i -th reference point. When the route does not make a circuit, the RTI could be defined as the cumulative angle of a tour rotating around a reference point. (Asakura, Iryo, 2007).

The RTI can be used to study the similarity of tour routes among different tourists through an index called “distance”. The difference between tourist A and B is defined as:

$$D^2 = \|R_A - R_B\| = \sum_i (r_{Ai} - r_{Bi})^2 \quad (4)$$

where $R_A = \{r_{Ai}\}$ and $R_B = \{r_{Bi}\}$ are the RTI vectors of two tourists.

The element of the vector is the RTI of the i -th reference point. The distance defined by the previous equation is used for the clustering method of a certain number of tourists. In this way it is possible to identify similar sightseeing pattern among tourists.

Another method to study the data collected by the devices previously presented is introduced by Shoval and Issacson (2007) and it is based on the sequence of alignment as a tool for analysing the sequential features of the temporal and spatial dimensions of human activities. This method was originally developed during the 1980s and employed to analyse DNA sequences, but at the end of the 1990s it was adapted for use in the social sciences (Shoval, Issacson 2007). In the traditional quantitative methods of sequence comparison, the distance between two sequences of activities is calculated through the Euclidian-based geometry, like Euclidian distance, city block distance or Hamming distance. The sequence alignment analysis, instead, computes the distance between two sequences on a “biological” basis. This method considers an algorithm based on three elementary operations: insertion, deletion and substitution (switching the places of two elements). By applying these operations to one of the sequences, that string is made identical to the other string. The more operations are needed to make the sequences identical, the longer is the distance, and so the greater is the difference between the sequences. Thus the method measures the degree of difference between two sequences in terms of their elements composition and sequence and it is more useful than traditional tools in order to recognise similar patterns that appear within tourists’ activity sequences.

5. CONCLUSIONS

Over the years tourism has become increasingly important for the economy of many countries and it often represents one of the key sectors for development and growth. This raises the interest by politicians and scholars, engaged to learn the dynamics of the sector in order to implement an effective and efficient management, and it determines the need for data and techniques able to support a real comprehension of the phenomenon. The importance of analysing multi-destination trip behaviour is related, among the other things, to the relevance of this phenomenon for regional tourism development. The multi-destination vacation experience will require more time than the average stays and will attract mainly those who have active lifestyles and more discretionary time and income. Individual destinations will have the opportunity to explore new markets in a cost-effective manner and to develop a more competitive product. At a regional level, local tourism organizations can exploit the potential of profitable diversification and the rebranding of a destination/region.

Despite a number of studies has been made by official statistical institutes and by research groups in order to increase the knowledge of the factors affecting tourists movements (McKercher, Lew, 2004), the empirical evidences on these topics are still too limited to provide a complete picture of the phenomenon. As highlighted in this work, the actual system of official statistics it is not able to provide adequate information which allow for the analysis of tourist mobility (within a single destination and among several destinations). On the other hand, internet and new communication technologies have changed tourism industry in many aspects and now we can speak about a revolution in the tourism products' distribution system. The development of information technologies in tourism has affected the dynamics of tourism products prices, the destination image creation and communication, the increase of transportation security, the structure of market competition, the tourism product personalization, and so on (Zelenka, 2009). Consumers are more directly involved in the production process and they are increasingly often self producer of their own travel, thanks to Internet technology.

Regarding the potential use of ICT information for the analysis of tourists' behaviour we concentrate our attention on the possibility offered by ICT tools for the implementation of ad-hoc surveys. It is acknowledged that sampling tourists is not an easy task, both under the methodological, economic and practical perspectives. From this point of view, the solutions provided by ICT can represent an important tools for the analysis of tourists' space-time behaviour. The availability of a big amount of data characterised by a high degree of accuracy, if integrated with more traditional survey instruments (e.g. questionnaire) can strongly reduce the costs of the survey and increase its quality. On the other hand, there are still several problems which needs specific solutions. First, the determination of the specific sampling design which need to be adequate to the nature of tourist population, which is, by definition a mobile population. From this point of view the Time Location Sampling (TLS) technique can represent an interesting theoretical framework (Kalton, 1991; Parroco, et al.

2012). Second, the implementation of a probabilistic sampling scheme requires the determination of the solutions for a set of practical and methodological problems, such as: the way in which select tourists, the places in which the tourist has to be interviewed, the moment in which the information have to be collected (before, during or after the trip), the determination of the temporal and territorial level of the information, etc. All these problems have important implications on the possibility of implementing a probabilistic sampling scheme which would allow for the application of the classical inferential statistical techniques.

Summarizing, the changing nature of tourism demand and the increasing segmentation of the holiday market are raising the need for more accurate information – which integrate quantitative information on the magnitude of tourism with other more specific aspects of tourism behaviors – whose analysis requires appropriate methods and models.

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**CULTURAL HERITAGE AND IDENTITY IN THE
CONTEMPORARY TOURISM DEVELOPMENT**

JEL classification: Z10

Abstract

Culture and heritage have been increasingly recognised as means of sustainable social and economic development and an important element of tourist motivation. However, the recent development of cultural tourism indicates the problem of massification, offering conventional products based on serial reproductions of culture. Due to factors such as globalisation and the importance of cultural diversity and identity creation in postmodern society, it is essential to place the recognizable and unique cultural heritage and identity of destination in the centre of contemporary touristic strategies. This article investigates creative tourism as a new strategy for cultural destinations. The theoretical part of the article explores multiple links between cultural heritage, identity and tourism and the emergence of creative tourism based on uniqueness, authenticity and sense of place. The analytical basis for the evaluation is a content analysis of cultural tourism projects listed on the Croatian Tourist Board website in order to select representative examples for further case study. The article concludes by proposing indicative guidelines for further development in this sector.

Keywords: creative tourism, heritage, identity

1. INTRODUCTION

Cultural tourism is not only a major global industry that brings income, but also a support for national identity and a means for preserving cultural

heritage (Richards, 2007). It has been argued that cultural tourism represents a sustainable alternative to mass tourism and the best model for local development (Edgell, 2006). It is a form of tourism that protects local culture and heritage, neutralize negative effects of traditional mass tourism, contribute to growth of employment and local economy. However, recent development of cultural tourism has led to the unification of cultural touristic products and experiences or, what we may call, mass cultural tourism. This problem has not yet been fully explored with the exception of work of Richard and Wilson (2007) and Richards (2011) who have identified the growth of creative tourism as the reaction to a serial reproduction of cultural tourism. They define creative tourism as an escape route from the serial reproduction of mass cultural tourism, offering more flexible and authentic experiences that can be co-created between hosts and tourists (Richards, 2011). A shift has been turned from tangible heritage towards more intangible culture and towards greater involvement with the everyday life of the destination.

This paper examines the relationship between cultural heritage, identity and tourism. It argues that the strategic planning of cultural tourism, based on elements of local distinctive characteristics, creativity and experience economy (Pine and Gilmore, 1999) can lead to creation of new tourism products that will improve traditional models by offering more engaging and interactive experiences. The article gives guidelines and examples of how cultural tourism can be reoriented towards more creative models in practice.

2. CULTURAL TOURISM DEVELOPMENT

Cultural tourism is a travel that is motivated entirely, or in part, by artistic, heritage or historical attractions. Most often cultural tourism is associated with arts, humanities, museums, festivals, food, music, theatre and special celebrations (Edgell, 2006). It is one of the oldest and most pervasive forms of tourism. Although it is difficult to know for certain how many people visit historic sites each year or what percentage of the entire world demand for international and domestic travel is motivated by a desire to experience heritage places, the World Tourism Organization place the number at around 40 per cent, suggesting that heritage and culture are a significant part of nearly half of all international trips (Timothy, 2008).

Cultural tourism has often been described as a sustainable alternative to mass tourism (Edgell, 2006), the best model for local tourism development or the tourism that brings financial and social benefits for local community (McKercher and Du Cros, 2002). It is a form of tourism that “cares for the culture it consumes while culturing the consumer” (Richards, 2007). Nevertheless, the current development of cultural tourism has taken the opposite direction, offering conventional products based on serial reproductions of culture. It retains on relatively safe development models. The effect is a production of growing series of sterile, inflexible cultural tourism spaces, dominated by passive consumption

and the use of familiar historic references (Richards and Wilson, 2007). Also, historic city centres have started to suffer from a “vicious circle” of cultural tourism development in which famous sites attract large number of tourists thus degrading the quality of experience and driving “serious” cultural tourists away (Russo, 2002). Mass cultural tourism, as any kind of mass tourism, offers standardized and unified experiences and products, degrades local values, disrupts authenticity and represents threat to cultural heritage and identity. Because of the growing demand, the distance between cultural tourism products and local communities is becoming bigger, creating conflicts and threatening cultural sustainability. Cultural destinations each “claiming distinctiveness, reproduce the same facilities in any number of places, echoing industrial globalization with its geographically widespread production, but concentrated consumption (Zukin, 2004, cited in Richards, Wilson, 2006).

Croatia has in the past generally put emphasis on mass tourism without identity, with marketing focus on natural beauties, sea and climate. Cultural tourism in general has been chronically neglected (especially in the continental part) (Fox, 2002). It has only recently been recognized as a prosperous tourism market niche. Croatian Cultural Tourism Strategy (2002, cited in Jelinčić 2002) concluded that, although many tourist programmes include culture as a part of a tourist package, cultural tourism in Croatia is still not sufficiently developed. Most of these cultural programmes have been imported, not using Croatian cultural distinctiveness as a tourist resource (Jelinčić, 2002).

Current problems of Croatian cultural tourism can be summed as:

- Small number of satisfactorily developed cultural tourism products in spite of a great number of potential resources. There is a big lack of visitors facilities (e.g. heritage interpretation centres)
- Lack of adequate and appropriate presentation, communication and interpretation (which leads to the lack of understanding and funding, but also to a loss of location authenticity)
- Neglection of domestic market
- Lack of cooperation between cultural and tourism professionals leading to a situation where protection of cultural heritage is not integral part of cultural tourism development
- Lack of strategic development planning.

One possible solution to these problems is a creation of cultural tourism products based on creativity and experience economy (Pine and Gilmore, 1999) that will reconnect the place, its heritage and community’s sense of identity with the touristic offer.

3. HERITAGE, IDENTITY AND TOURISM

Identity became a complex concept in a contemporary globalized society. It is defined as consisting of “customary practice and of beliefs, values, sanctions, rules, motives and satisfactions associated with it” (Jensen et al, 2011, p. 286). Nowadays the globalization has created a social context in which complexity produces diversity, which presents both possibilities and threats for identity building (Jensen et al, 2011). It is a dynamic, constantly changing process which affects and is affected by many institutions: media, arts, education and tourism. UNESCO (2006) defines culture as a whole complex of distinctive spiritual, material, intellectual and emotional assets that characterize a society or a social group, and which includes creative expressions (language, literature, performing arts, crafts), community practices (celebrations and patterns of social interaction that contribute to the group and individual welfare and identity) and material or built forms such as sites, buildings, historic cities, landscapes, art, and objects. In that sense, culture can be defined also as a “living identity” (Jelinčić, 2009). Culture and cultural heritage, as an expression of identity and history they belong to, could serve as a tool for the establishment of identities and differences, which at the same time localize and globalize the cultural and tourist experience, characterized by contact and mixing of cultures (Jelinčić, 2009).

There are many recent examples of the policy makers’ attempts to revalorise place through cultural identity in the face of increasing globalization and economic integration (Richards and Wilson, 2006). Many of these attempts involve tourism in the form of revalorisation of cultural heritage for touristic use. In the current globalization processes, an authentic expression of local identity adds value to a touristic representation. The image of a destination is based both on physical assets and a series of experiences built around those assets, generally extending to the “living culture” and the atmosphere of place (Richards and Wilson, 2006). By using the elements of local heritage and identity in the strategies of cultural tourism, we can differentiate our tourism products from competitors. But, in the same time, we encourage development that is favourable to the local community in terms of protection of its values, lifestyle and local economy. We strengthen cultural identity of local communities and promote the destination as a desirable place to live, work, visit and invest in. It is vital to have community participation if we want to achieve and maintain sustainability of tourism product. Active involvement of the local community means possibility for them to benefit from the project. It creates a sense of pride and raises motivation to be a better host.

Cultural destinations must learn how to maintain, develop and utilise their distinctiveness, keeping its authenticity and local sense of identity. It is the only way that tourist activities can be culturally (and thus economically) sustainable.

4. CREATIVE CULTURAL TOURISM

If we define globalization in terms of increasing integration of economic, social and cultural systems, then tourism can be seen both as a cause and an effect of a globalization process (Richards, 2007). Due to globalization processes in the postmodern society, tourists increasingly search for authentic cultural experiences and unique local products.

The “experience economy” (Pine and Gilmore, 1999), or creative economy (Howkins, 2001), that can be applied to tourism as well, has appeared after the notion that goods and services are no longer enough and that producers must differentiate their products by transforming them into experiences which engage the consumer. In tourism, it can be seen as the creative cultural tourism products that are not only based on material heritage objects, but involve an authentic experience and engagement in the real cultural life of the social community in the destination. These products are based on expressions of the individual’s creative potentials and the self-creation of the tourist experience and include more educational, emotional, social and participative interaction with the place, its living culture and the local people. Pine and Gilmore have suggested that the next phase of value creation will be in the area of “transformations”, or experiences which actually change the person having the experience (Richards, 2011).

UNESCO defines creative tourism as a “travel directed toward an engaged and authentic experience, with participative learning in the arts, heritage, or special character of a place which provides a connection with those who reside in this place and create this living culture” (UNESCO, 2006). While traditional cultural tourism is based on viewing, seeing and contemplating (e.g. visiting museums, art galleries, concerts, ballet performances and the like), creative tourism is based on experiencing, participating and learning. This puts creative tourism as the next generation of cultural tourism that satisfies the higher level need of self-actualisation with a primary focus of active skill development. It offers visitors the opportunity to develop their creative potential through active participation in experiences which are characteristic of the holiday destination where they are undertaken. The creative tourists are deeply involved in the culture of the destination, where they take part in different activities – crafts, arts, culinary and other creative activities. That creates a close link between the tourists, the local population and its cultural heritage (Richards and Wilson, 2006).

Furthermore, creative tourism is not so place-bound as cultural tourism in general is, because creative tourism utilises tourist resources that are processes in essence – like dances, singing, crafts, painting, festivals and is, therefore, more sustainable in nature than traditional cultural tourism based on the consumption of built environments (Richards and Wilson, 2006) and contributes to the development of the destination. It meets the desire of tourists for more fulfilling and meaningful experiences. In this sense, creative tourism is similar to “experiential tourism” (Smith, 2006). The creative cultural tourism has to be

based on the interpretation that will help people understand the place they are visiting and contribute to the visitors' "sense of place and awareness of a destination heritage" (Uzzell, 2006).

5. METHODOLOGY AND RESULTS

The empirical analysis of this article is based upon the secondary data taken from the Cultural Tourism Database that can be found on the website of Croatian Tourist Board (<http://croatia.hr/en-GB/Discover-Croatia/Culture-tourism>). The 77 descriptions of Croatian cultural tourism projects and events were the primary source for content analysis. The analysis was conducted in order to choose informative and representative cases that represent the phenomenon under study. The analysis used the following substantive research categories related to the characteristics of previously described creative tourism concept: authentic experience, interactivity, participation, learning, living culture.

Table 1 summarises Croatian projects that have adopted the creative tourism approach.

Table 1. Examples of creative tourism products

Project	Creativity base	Description
Secrets of Grič, Zagreb	History and legends of Zagreb	Interactive night tour of the Zagreb's Upper Town .
Istra Inspirit	Istrian history and tangible and intangible heritage.	Nine experiences which recreate the mystical Istrian history on authentic locations around the Istrian peninsula.
Ad Turres Days, Crikvenica	Archaeological heritage	Cultural-educational event as a way of celebrating the area's rich architectural heritage. The event evokes Roman times in a vivid, picturesque way, so that visitors can re-experience the atmosphere of ancient Crikvenica.
Špancirfest (Strollers' Festival), Varaždin	Traditional crafts, gastronomy, arts, music, theatre	Street festival that every year introduces new attractions and programmes, the chief aim being that each visitor becomes its active participant and co-creator
Decode Zagreb, Zagreb	Zagreb cultural heritage	The participants read the instructions and follow them from one secret code and sign to another as they discover the city. Thus, they become the principal heroes in this game in which their mission is to solve this Da Vinci Code-type tourist mystery.
The Labin Art Republic, Labin	Theatre, arts, heritage	Street festival with concerts, theatre, heritage walks, art quarter
Lace Festival, Leopoglava	Traditional lace making	Exhibition, lecture, workshops
House of fairy tales and Festival of fairy tails, Ogulin	Fairy tales of Ivana Brlić Mažuranić	Permanent exhibition, interactively led content, live storytelling and production of audio and video materials, performances.

(Source: Author)

The analysis has shown that, although there is no explicit creative tourism offer on the official web portal of Croatian tourism, there are some existing projects that contain the key elements of creative tourism and Croatia is making its first steps in this area. Eight out of 77 cultural tourism projects described on the website can be categorized as creative tourism projects. Regarding the global trends in tourism development, this number is not sufficient. Croatia should take the advantage of its potential and work on the new forms of cultural tourism products.

6. GUIDELINES FOR FURTHER DEVELOPMENT

In order to profit from the creative business model, the towns and regions must create strategies for developing creative tourism products and work on a national and international branding and marketing. The following table shows main advantages of creative cultural tourism as opposed to traditional forms of cultural tourism.

Table 2. Differences between creative and traditional cultural tourism

CREATIVE CULTURAL TOURISM	TRADITIONAL CULTURAL TOURISM
Based on local creative capital in constant development	Based on existing cultural heritage (material) resources with predetermined characteristics
Small groups and individuals with narrow niche interests	Large groups and individuals with general interests in culture
Non-destructive participation, visitors' responsibility, creation of new cultural heritage	Mass cultural tourism already represents a danger for many cultural heritage sites
Very high sustainability, based on a continuous process of creation	Limited, resources are not renewable
Mobile and without need for much infrastructure	Static, depends on tangible resources

(Source: Adapted from Richards, 2011)

Creativity is a process and creative tourism utilises tourist resources that are processes in essence, e.g. dancing, singing, crafts, culinary, painting, festivals. These resources are more sustainable than tangible cultural products (Prentice and Andersen, 2003). Because of the complexity of the creation of creative tourism products and services, there are several approaches that can be taken. Creative tourism can be destination based or activity based. Destination based product is destination dependent. Such approach is typical for creative cities, creative landscapes or programs that use the material resources of a place. Activity based creative tourism product is geographically dispersed (Richards, 2011). These are

creative tourism programs based on a concrete activity independent of the location such as the Roman Empire battles re-enactments that spread across several Mediterranean countries.

The main methods to turn shift from traditional forms of cultural tourism to new, creative experiences are:

- Creative spectacles: It is possible to undertake creative spectacle activities around existing passive tourist resources (festivals in historic cities, theatrical representations, concerts, performances)
- Creation of creative spaces such as art quarters
- Educational and hobby tourism: Organization of courses and creative workshops based on cultural assets
- Cultural routes
- Virtual interpretations via Internet, especially social media
- Agro tourism, eco tourism and gastro tourism

Sustainable development of tourism is closely connected to the stimulation of micro-business development (Jelinčić, 2002). If a local community is able to integrate their everyday business and professions into the tourist activity and thus present their local lifestyle, it is likely that the quality of tourist visit, as well as the quality of the local population life will be ensured. Cultural tourism in Croatia should thus include all the heritage and identity resources available: museums, architecture, archaeology, visual and performing arts, crafts, language, literature, myths, design, film, music, local food and landscapes.

7. CONCLUSION

This paper has explored the current development of cultural tourism, indicating the need to move beyond conventional products towards more creative approach based on destination uniqueness, authentic experience and participative learning. The potential for adopting creative tourism strategy has been highlighted and some good practice models have been presented. However, the content analysis of Croatian cultural tourism offer showed that there are only a few creative tourism projects in Croatia and that the heritage potentials have not been fully explored. For cultural tourism to become sustainable and in compliance with the need of the community, it has to be based on its distinctive heritage and identity and adherent to the principles of creative experience economy. The creative tourism counts on cultural resources to attract travellers to a destination. It is also a form of creative community's development. By stimulating the creative industries from outside, the local economy improves beyond the profits from tourism. Developing creative cultural tourism model can bring many benefits to local community, such as the revival of local crafts and tradition, cultural heritage preservation, renewed pride of the local population in their cultural heritage,

generation of jobs and income in creative industries. It can stimulate the economic growth in the destination by adding value to the tourists' experiences. An authentic cultural heritage and its creative use should be the base for future tourism development in Croatia. Further research should be undertaken in order to test these hypothesis and to determine to what extent this kind of interpretation of local culture and identity, through creative tourism, influence the creation of visitors' appreciation of place and its heritage, culture and landscape.

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THE ROLE OF TOUR OPERATORS IN THE SUSTAINABLE TOURISM DEVELOPMENT-THE CASE OF THE TOURIST DESTINATION KOTOR

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Abstract

Responsibility for ensuring sustainable tourism is largely in the hands of all stakeholders in tourist destination of which extremely important are Tour Operators. Cooperation between companies that provide services to the tourists and Tour Operators is significant, considering that Tour Operators are the central link in the distribution chain. Tour Operators

as business partners, demand from hotel and other companies responsible environmental policy and creation of development plans, regardless of regulations, which oblige them to it. It improves the quality of products and leads to long-term conservation of natural resources and environmental protection. Tourism product that is not dangerous for the environment becomes a means of a differentiation in the touristic market and is expected from eco-conscious travel consumers. The aim of the paper is to show the role of Tour Operators as a one of most important destination stakeholders in the tourists destination sustainable supply chain. For the purpose of this paper we have used secondary data and primary research carried out by method of interview with managers in tourist destination Kotor. According to the results of primary and secondary research we have confirmed that Tour Operators Generalist as well as Tour Operator Specialist play important role in the tourist destination sustainable development and that they have to implement new strategies in their bussiness practice.

Key words: sustainable development, Tour Operators, touristic destination

1. INTRODUCTION

Business entities that offer new technological solutions in accordance with the preservation of the environment, health and improving the quality of life in practice are called "environmentally friendly business." Tourism product that is not dangerous for the environment becomes a means of differentiation in the tourism market and is expected from the eco-conscious travel consumers.

Responsibility for ensuring sustainable tourism is largely in the hands of all stakeholders in touristic destination of which extremely important are Tour Operators. About 50% of tourists who want to buy sustainable tourism product are individual tourists and about 50% of clients are using packages (Peng, T., 2005, p. 397-404). Cooperation between other companies in tourist destination and Tour Operators is significant, considering that Tour Operators are the main link in the distribution chain. Tour Operators as business partners demand from hotel companies responsible environmental policy and creation of development plans, regardless of regulations, which oblige them to it. It improves the quality of products and leads to long-term conservation of natural resources and environmental protection. Tour Operators play important role in satisfying clients'

requirements (Čavlek, N., 2000, p. 325) and have strong influence on tourists' behaviour (Čavlek, N., 1998, p. 217). The discrepancy between the large number of people and space can not pass without effect on the environment.

With the overall environment in which tourist are resting, culture, health, safety and ecology are now one of the determining factors underlying the contemporary tourist flows. Consumers are becoming more aware and more critical to the phenomena that surrounds us. The issue of environmental protection is becoming an integral part of living of environmentally conscious citizens who expects tourist product to meet the standards of "extra" quality that relates to compliance with environmental standards. The aim of the paper is to examine the importance of sustainable development strategies implementation in Tour Operators business practice in tourist destination Kotor.

2. The Destination Sustainable Supply Chain

In recent years the area of Supply Chain Management (SCM) has become very popular. Supply chain management is defined as the systematic, strategic coordination of traditional business functions and the tactics across these businesses within the supply chain, for the purpose of improving the long-term performance of individual companies and supply chain as a whole (Mentzer et al., 2001., p. 18).

The concept of sustainable development includes businesses interaction with the local residents and businesses which take an active role in such a way that protects the environment. When the international community in Rio de Janeiro in 1992. adopted the Declaration on the Environment in accordance with the principles of sustainable development it has become clear that sustainability means long-term changes in technology and the adaptation of an existing technology may not be satisfactory. Eco-innovation has become necessary to improve environmental performances (Rennings, K., Ziegler, A., Ankele, K. & Hoffman, E., 2006, p. 45)

Among the most important instruments in implementing the environmental policy is EMS (Environmental Management System) and EMAS (Environment Management Auditing Scheme). Implementation of EMS improves environmental quality and reduce costs, and indirectly stimulates product innovation in the direction of environmentally friendly products and services. An important role also has implementation of environmental management systems according to ISO 14001 standard. At the same time very important factor is cooperation between Tour Operators, hotels, environmental organizations, industry sector and governmental organizations (Chan, W. & Ho, K., 2006, p. 306-306). This is supported by research conducted in croatian hotels. The results of the resarch show that hotel managers consider implementation of environmental management systems according to the standard 14001 as

significant factor for realizing business cooperation between Tour Operators and hotels (Dragicevic, M., Krzelj-Colovic, Z., Letunic, S., 2010).

As an example of good business practices can be taken Tour Operator TUI, which collaborates with various national and international organizations, encouraging and promoting a policy of sustainable development. At the First International Conference of the World Tourism Organization (UNWTO) in 2003. which referred to climate change ([www. tec-conseil.com](http://www.tec-conseil.com), accessed, 4.06.2013.), TUI has presented its own measures that could positively affect climate change. The measures were related to reduction of CO₂ emissions, and included all the stakeholders in the tourism supply chain. By accepting the implementation of various quality standards hotel companies and business partners could have a significant impact on increasing product quality, customer safety and environmental protection. TUI is the also owner of hotels in Germany, Spain, Egypt, Turkey and the Caribbean Islands who have implemented the ISO 14001 standard. (www.tui-group.com, accessed 15.01. 2012.).

In a study of package-holiday users, carried out by ABTA in February 2001., respondents were asked to answer a question about harmful impact on the environment. The responses show that respondents considered important that their holidays do not negatively impact on environment. Even 40% of respondents believe that it is very important, 45% fairly important, 10% thinks that it is not very important and 3% said it is not important at all. In the same survey 81% of respondents expressed that they are willing to pay financial compensation to guarantee this. ([www. Maltatourismauthority.com.](http://www.Maltatourismauthority.com), accessed 22.12.2008). Čavlek states that the analysis of research including German tourists shows that 57% of respondents have noticed serious damage to the natural surroundings, while 49% said that this experience will be kept in mind before making a decision about destination (Čavlek, N., 1993., p. 153). Also, over 80% of respondents involved in research in the UK said that just Tour Operators have responsibility to protect the environment and culture to ensure that local community benefits from tourism. The same respondents would prefer to buy package that is created by company taking care of responsible development. The Tearfund reported (2000) that 55% of consumers believe that travel agents are obliged to provide information on the responsibilities of the tourism industry, while 48% of consumers believe it is Tour Operators' obligation. Buying a package-tour organized by a company that has a written code of conduct to guarantee good working conditions, environmental protection and supports the benefit of the local tourist destination is becoming increasingly important in the modern tourism market (Dodds, R. & Joppe, M., 2005) This is proved by research conducted by Goodwin and Francis (2003, p.271-284). Research results are presented in Table 1.

Table 1 .

The influence of ethics on the travel decision making (for tourists who travel in package-tours and individuals

<i>Influence</i>	1999.(u%)	2001.(%)
Yes	45	52
Doe not influence	42	33
Do not know	13	15

Goodwin H., Francis J. (2003). Ethical and responsible tourism: Consumer trends. UK. Journal of Vacation Marketing, 9, 3, p. 271-284.

Practice and effort of renowned leading European tour operators TUI and Thomson, for instance, shows that large Tour Operators are the main force that can change the practice of other market participants. These Tour Operators as their business partners choose just those hotels that take care of environment protection. Tour Operators enhance control policies not only in terms of quality control and service standards, but increasingly in the direction of compliance with environmental and health conditions. For example, in the TUI brochures that promote their products there are those hotels that do not disturb the harmony of the environment.

TUI is also the first Tour Operator in the world to set up its own Department of Environmental Protection in 1990. and one of the founders of Tour Operators Initiative for Sustainable Development of Tourism (Tour Operators Initiative for Sustainable Tourism Development) within the United Nations Environment Programme, UNEP. TUI makes efforts in terms of promoting sustainable tourism, but there are certain repercussions in the tourist destinations that are involved in its programs. British tour operator Thomson also follows the practice of TUI, which promotes the protection of the environment in the destinations in which they bring their clients. Thomson in 1990. released a program called "World Aware", which contains two separate recommendations. The first are for the hotel managers and other participants who provide services and second are for tourists who are asked to develop and enhance their own initiative to protect the environment and to behave in accordance with the principles of environmental protection. Part of the program called "behaviour" was intended for those who have realized business agreements with Thomson in Greece, Spain, Portugal and Italy. In the second part, the tourists were also asked to examine their behavior. This is related to rational use of water, electricity, respect animals, plants, etc. (Čavlek, N., 2002). Association of Independent Tour Operators relies on the certification and on sustainable tourism as a result of the experience of tourists and benefits to the local community (Font, X., Tapper, R., Schwartz, K., Kornilaki, M., 2008, p. 269).

3. The results of the empirical research carried out in the touristic destination Kotor, Montenegro

3.1. Research Methodology

For the purposes of empirical research we have conducted a semi-structured interviews including the sample of 20 subjects in the tourist destination Kotor. The respondents were managers or experts in the field of tourism. Major part of them, 6 managers, was employed in hotels, 4 in travel agencies, 2 in transport services, 4 in private accomodation, 2 in restaurants and 2 were managing cultural attractions. Respondents were asked 20 questions. General questions were related to the form of business ownership, education of patients, profession, years of service and age. Respondents were asked questions about implementation of sustainable development in the business practice. The managers also responded to questions refering to the environmental awareness of the stakeholders in the destination suply chain. Furthermore, questions were related to the cooperation of stakeholders. In formulating and presenting the results of empirical studies we have used methods of descriptive and inferential statistics (based on chi-square testing, $\alpha=0,05$).

3.2. The results of research

Analyzing the position of managers who participated in the study it can be concluded that 90% of respondents managers are directors and company managers, while 10% of respondents are an assistant director. Therefore, it is evident that the company directors and managers were willing to participate in the study and showed interest in the research of this type. The share of 25% belongs to the managers who are between 26-30 year old, 25% of them are from 31-35, 20% have between 36-40, 25% from 41-45 and only 5% are managers older than 51. Analyzing the working experience of managers in the tourist destination of Kotor, one can conclude that the majority of respondents (30%) have from 6 to 10 years of working experience, 25% of respondents have up to 5 years and 25% from 11-25 years. With the share of 10% are represented managers who have from 16 to 20 years of working experience and from 21-30 years of working experience.

Table 2.

Working experience of managers

Working experience	Number of managers	%
Up to 5	5	25
6-10	6	30
11-15	5	25
16-20	2	10
21-25	1	5
26-30	1	5
31-35	-	-
36 and more	-	-
Total	20	100

Source: author's own

The largest number of respondents (85%) have university diploma, and 15% of respondents had master or doctorate degree.

According to the opinion of respondents it can be concluded that the companies with highly educated managers, 20% of them, have formally implemented sustainable development strategy, it informally exists in 50% of companies, but in 30% of companies the sustainable development strategy does not exist. Chi-square testing of independence, $\alpha = 0.05$ (empirical value of $\chi^2 = 0.6079$ and χ^2 table value = 5.99) shows that there is no correlation between managers educational level and the existence of a strategy for sustainable development as visible via table 3.

Table 3.

Educational level of managers and implementation the strategy of sustainable development

Strategy Education	Formaly exists	%	Informaly exists	%	Does not exists	%
Ph. D., M.Sc.	1	5	1	5	1	5
High	3	15	9	45	5	25
Higher	-	-	-	-	-	-
Secondary school	-	-	-	-	-	-
Total	4	20	10	50	6	30

Source: author's own

The significant share of the respondents (45%) who participated in the study showed a high level of awareness about the concept of sustainable development, but also it should be noted that 55% are moderately informed. The above results show that managers are aware that responsibility towards the environment brings many benefits not only to companis, but also to the local community. However, the above indicates the need to improve the awareness of one part of managers that are moderately informed about importance of sustainable development principles implementation. According to the results of the research, it is visible that moderately informed are young managers.

Table 4.

Importance level of the sustainable strategy implementation and real existence

Strategy implementation \ Importance	Formaly exists	%	Unformaly exists	%	Does not exists	%
Very important	4	20	5	25	1	5
Important	-		5	25	5	25
Moderately important	-	-	-	-	-	-
Has small significance	-	-	-	-	-	-
It is completely insignificant	-	-	-	-	-	-
Total	4	20	10	50	6	30

Source: author's own

The above data shows that 70% of the companies has implemented some type of sustainable development strategy, but in a formal form it exists only in 20% of enterprises. The 45% of managers consider it extremely important, and 25% think it is significant. Similarly, in 30% of companies that were involved in the research strategy of sustainable development does not exist, even though these managers believe it is important. The above leads to the conclusion that it is necessary to encourage the implementation in companies that have not introduced the strategy of sustainable development in their business practice. If we analyze the attitudes of managers according to the criterion of branches it is

interesting to see that majority of managers in hotels consider that implementation of the strategy of sustainable development is very important. The same is the fact with managers in travel agencies.

According to the data in Table 5. it is evident that the largest number of managers (47%) consider benefits of sustainable development refer to a better image of the tourism market, then a positive impact on the environment (22%), and improving competitive advantage on the market (19%). According to the results of the research the lowest number of responses (11%) refers to the introduction of eco-innovation through new and recycled products.

Table 5.

Main advantages of sustainable business practice

Advantages	Responses	%
Better image	17	48
Gaining better competitive edge	7	19
Initiates the inovations and recycling usement	4	11
Positive influence on the environment	8	22
Total	36	100

Source: author's own

Table 6.

Implementation of the Environmental Managing Systems (Systems (ISO 14001 and similar)

Implementation of the Environmental Managing	Responses	%
Enterprises with the Environmental Managing System	1	5
Enterprises without Environmental Managing System	12	60
Enterprises which are in the process of implementation	1	5
Enterprises which are planning implementation	6	30
Total	20	100

Source: author's own

The largest share of 60%, represents responses of managers who have not implemented the Environmental Management System. Even more, only 5% of companies, have implemented some of the Environmental Management System. According to the results of the research, 30% of managers plan to introduce Environmental Management System in the near future, what is encouraging.

Table 7.

The managers' attitudes towards advantages of cooperation between
Tour Operators and other stakeholders in the tourism destination supply
chain

Attitudes	Responses	%
Better opportunities for positioning products/services on the tourist market	18	72
It is easier to make business	6	24
Lower costs	1	4
Total	25	100

Source: author's own

According to the results of the research which refer to the attitudes of managers towards benefits that brings cooperation with Tour Operators, it is visible that 72% of responses refer to the greater opportunities for better positioning on the tourist market.

The results of the primary research show that 90% of companies in the tourism destination chain cooperate with Tour Operators and only 10% of them does not have any cooperation with Tour Operators. However, it is important to note that these managers believe that the implementation of the principles of sustainable development in the companies is important or very important. The cooperation with Tour Operators is good or very good in 55% companies that have implemented the principles of sustainable development in there business practice and that consider it is important. The rest of 35% of companies that have have cooperate with Tour Operators in a small measure. None of the participants in companies that cooperate with Tour Operators consider that the introduction of the concept of sustainable development into business practices is not significant. The following table 8. presents the results of the research which refer to the attitudes of respondents towards the importance of sustainable development

principles implementation in the business practice of Tour Operators Specialists and Generalist.

Tour Operators Specialists are smaller Tour Operators, focused on market niche. Cavlek cites (1998) that Tour Operators Specialist can be grouped according to the following criteria:

- The content of the product (specialists offer activities on holidays, e.g. hobbies, activities as the main content)
- Applying the geographic criterion (specialists in particular touristic destination)
- According to sociodemographic criteria (specialists in certain age groups, singles, etc.)

Table 8.

Importance of implementation principles of sustainable business practice for Mass Tour Operators and Tour Operator Specialist

Importance	Number of managers	%
Important for Tour Operators generalist	3	15
Important for Tour Operators specialist	1	5
Important and for Generalists and Specialists	16	80
Total	20	100

Source: author's own

According to the results via Table 8. it is visible that the largest number of respondents (80%) consider that the strategy of sustainable development is important for Tour Operator Specialists and Tour Operators Generalists, 15% thinks it is significant only for Tour Operators Generalists and only 5% think it is important only for Specialists. It is evident that the majority of respondents is aware of the importance of implementing the principles of sustainable development in Mass Tour Operators business practice as well as in Tour

Operator Specialists business practice. Managers believe that the damages caused by Tour Operators which do not care about socially responsible behavior are primarily connected to the destruction of natural beauty and with lower level of live quality of local people.

Table 9.

The damages caused by Tour Operators

Damages	Responses	%
Destroying natural beauty	16	59
Mass of tourists that has influence on lower standard of local inhabitants living	8	29
Unknown	3	12
Total	27	100

Source: author's own

The small number of managers (10%) believe that Tour Operators are responsible for harmful effects on the environment and realization of a package-tours that can greatly influence the balance of eco-system. With a share of 15% are represented the managers who think that the business of Tour Operators can not cause environmental damage. Studies conducted in the world also indicate the responsibility of Tour Operators in relation to the environment. For example, research conducted in Great Britain shows that over 80% of respondents feel that just Tour Operators are responsible for the preservation of the environment (www.responsibletravel.com, accessed 12. 5. 2009).

Table 10.

Tour Operators and other stakeholders

responsibility in arising the level of tourists' ecological awareness

Attitudes of managers	Number of managers	%
Responsible are Tour Operators	6	30
Responsible are all stakeholders	14	70
Total	20	100

Source: author's own

Data analysis leads to the conclusion that 30% of managers believe that Tour Operators are responsible for raising the environmental awareness of tourists while 70% of managers believe that it is responsibility of all stakeholders in the touristic destination Kotor.

4. CONCLUSION

The implementation of principles of sustainable development is very important factor for all participants cooperation in touristic destination supply chain. There are example of good business practices such is the case of Tour Operator TUI which collaborates with various national and international organizations and other business partners such as clients to support and develop a policy of sustainable development. The holidays organized by a company that has written code of conduct guarantee good working conditions, environmental protection and the benefits for the local community, tourists and all other stakeholders in the touristic destination. It is necessary to educate the managers about the benefits and necessity of implementing the principles of sustainable development and socially responsible behaviour. The implementation of sustainable business practice brings significant benefits to the Tour Operators, such as better image and improvement of competitive edge. The damage caused by Tour Operators which do not take care about socially responsible behaviour is

primarily reflected in the destruction of natural beauty as well as in the lower of local people lives quality. This refers to the Tour Operators Generalist and Tour Operator Specialist, because both can cause different environmental damages. For raising the environmental awareness of tourists responsible are Tour Operators who create package-tour and all other stakeholders in touristic destination. The implementation of sustainable development principles is important not only for realizing business cooperation with hotels as the most important business partners, but also and with the all other stakeholders in the touristic destination Kotor.

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CONSUMPTION OF CRUISE SHIP PASSENGERS IN TOURIST DESTINATIONS

JEL classification:

Abstract:

A general opinion is that a highly valuable destination implies a higher degree of consumption of cruise ship passengers. Elite destinations are key places, according to which, lots of shipping cruise companies offer and plan their cruises. The elite destination means a city or a region, that stand out from the rest, thanks to the unique natural or cultural values and it is the target of numerous travels and also a magnet attracting crowds of tourists from all over the world.

The purpose of the research is to demystify and explore a phenomenon of consumption of cruise ship tourists at the elite destinations in order to point out the necessary activities of entities that are responsible for management of cruise companies and tourist destination areas. The goal of the research is to determine the amount of tourists' spending in the cruise destinations, as well as, to define the factors influencing upon consumption. It was also set up the basic hypothesis that "An elite destination also means high amount of spending of cruise ship tourists." This basic hypothesis will be examined by using the methods of analysis and synthesis of the results and verification of the results of studies published previously. But first of all, there will be applied the methods of comparative analysis of two famous port cities, it means the City of Gdańsk in Poland, and the City of Dubrovnik in Croatia.

Keywords: cruising, tourist consumption

1. INTRODUCTION

The world cruise ship tourism has got an average growth rate of 11% in recent 40 years (Dowling, 2006, p. 5.). The growth of this market is based on a well-organized cruise industry, but a constant research of demand of the major world markets is particularly important for the attractive cruise destinations. Tourist cruise destinations are the bases for construction, maintenance and development of cruise routes and tourist packages, that are prepared by large cruise corporations. They use the attractiveness of the cruise tourist destinations very skilfully.

The cruise market can be divided into five sub-European markets: (1) Mediterranean (2) the European Atlantic, (3) the Baltic and the Arctic, (4) Black Sea (5) continental Europe. (Luković, 2012 p. 399) Each of these five markets is a specific entity with its market characteristics. However, all five markets in Europe can be viewed through the basic characteristics of tourists visiting various cruise destinations, and it will also be a subject of this study. Since, cruise routes are based on attractive tourist destinations, possibly on the quality, a purpose of a research is to determine the relationship between a tourist' consumption and an attractiveness of a cruise destination. The purpose of the research is to define the parameters of a tourist' consumption and to determine, how the fact of attractiveness of a destination influences upon the level and a structure of the consumption of tourists from the cruise ships. It seems to be rather logical that the hypothesis that an elite destination has an impact on consumption of cruise ship tourists, irrefutable. Thus, the assumption would be that, an elite destination, in itself, leads to a higher level of spending, but the question remains whether this is not like that. To reach the necessary conclusion, there were made comparative researches in two elite cruise destinations, the first is located in the Mediterranean Sea Region and the second - in the Baltic Sea Region. These tourist destinations are famous all over Europe, and even the world, for their unique cultural heritage and history. Thanks to that, they are on the top list of tourist destinations in their sea regions, which are visited by thousands of tourists annually. There are the most important reasons, why these cities can be called as "elite tourist destinations".

2. CRUISE SHIP TOURISM AND ELITE TOURIST DESTINATIONS

The Caribbean Sea basin has been considered to be the world's most attractive cruise market thanks to the total share in the market at the level of 46% and 11% in the Mediterranean. (Dowling, 2006, p. 11). In Europe, "the dominance of the Mediterranean Sea basin, which was apparent for all maritime passenger transport, (...) accounting for approximately two thirds (66.5 %) of all cruise passengers in the EU. The North-East Atlantic Ocean also had a larger share of cruise passengers (13.8 % compared with 11.8 % for all maritime

passengers), as did the outermost regions (2.3 % compared with 1.6 % for all maritime passengers). The share of the Baltic Sea was just 10.2 % for cruise passengers, less than half its share of all maritime passengers.” [EUROSTAT, 2013] (Figure 1)

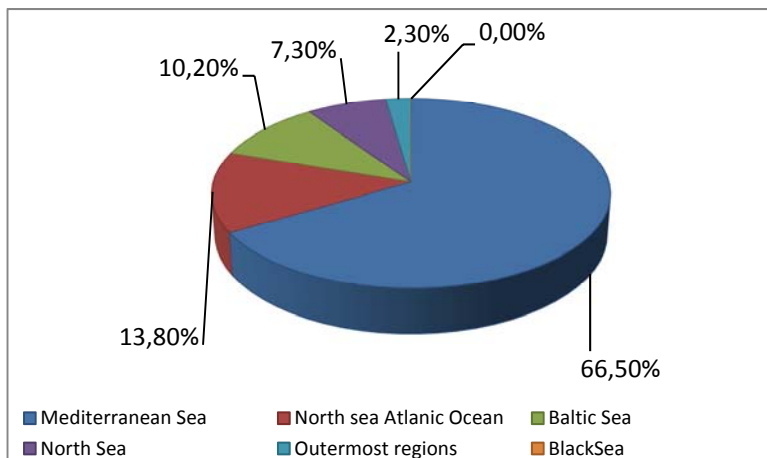


Figure 1. The percentage of the Sea regions in Europe in nautical tourism market

Source: EUROSTAT (2012). *Cruise passengers, Coastal region statistics*, http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Coastal_region_statistics [accessed 14.05.2013].

The Mediterranean Sea basin is considered to be one of the most famous cruise destinations in Europe thanks to numerous historical monuments, a long sailing traditions, and first of all, excellent weather conditions, that cause that a tourist season for cruise travels lasts up to eight months (Luković, 2008.) In the Baltic Sea basin, a cruise season lasts only up to four months and the main purpose of cruise travels, there are sightseeing tours to cultural centres connected with numerous entertainments and events.

In elite tourist destinations, there are numerous entities related to the cruise industry, and in particular, they offer support for cruise vessels and cruise ship tourists. In addition, there also arose a lot of organizations and associations that are engaged in the study of phenomena relating to the cruise ship market and they also help to diagnose market trends in order to plan the development of the cruise industry. Moreover, thanks to that, the quality of services and the standard of amenities and facilities of ports' infrastructure in the elite cruise destinations have been developing in order to be able to handle the biggest cruise ships all over the world. One of the most famous cruise research associations, there is Cruise Line Industry Association (CLIA) established in the United States of America. In Europe, there are also a few similar entities, as for example MedCruise. This is an important organization, established in 1996 in Rome and

now based in Athens, which brings together high-quality port destinations in the Mediterranean. “MedCruise's mission is to promote the cruise industry in the Mediterranean and its adjoining seas. The Association assists its members in benefiting from the growth of the cruise industry by providing networking, promotional and professional development opportunities. Today, the association has grown to 70 members (Picture 1) representing more than 100 ports around the Mediterranean region, including the Black Sea, the Red Sea and the Near Atlantic, plus 30 associate members, representing other associations, tourist boards and ship/port agents.” (MedCruise, 2013) The main objectives of this association are as follows:

- promotion of the Mediterranean as a cruise destination
- increasing the efficiency of the members, sharing technology and experience related to passenger traffic, to encourage the development of tourism in the areas of ports for cruise ship
- increasing the efficiency of the members informing them of the development of the industry, statistics, practical experience of developing and managing ports for cruise ships
- formulation of common positions, policies or plans related to the common interests of the cruise
- development and strengthening of good relations and cooperation among all the world's ports for cruise ships and "cruise" industry
- creation of high-quality services in the ports of different sizes, various regions, countries and cultures
- creation of marketing, networking and professional development tools and forums for members.



Picture 1. The cruise ports as the members of the MedCruise

Source MedCruise, 2013, *Welcome to MedCruise, Athenes, Greece.*
<http://www.medcruise.com/> [accessed 15.05.2013].

“The Baltic Sea Region is famous for its activity in terms of international cooperation, resulting in a number of projects of development of tourism, including cruise ship tourism. Among the projects of the Baltic,

currently treated as a priority by the Polish side, one should mention: *Cruise Baltic Northern Europe* and *Enjoy the South Baltic*, and also *BaltMet Promo*.” (Kizielewicz, 2012. p. 36-39) The project, which is called *Cruise Baltic Northern Europe* (Picture 2) was a project of innovative trans-border cooperation among Poland, Lithuania and Germany. In the first stage of the implementation of the project, from 2007 to 2009, it was co-financed by the EU.



Picture 2. The cruise ports as the members of the Cruise Baltic Northern Europe

Source: *Cruise Baltic Northern Europe, 2013, Partners of Cruise Baltic Northern Europe, Athenes, Greece. <http://www.cruisebaltic.com/composite-102.htm> [accessed 15.05.2013].*

However, the success of this project encouraged partners to establish associations in order to develop cooperation regarding cruise travels around the Baltic. The Association has an ambitious plan for action in the field of development and promotion of nautical tourism. “The countries of the Baltic Sea Region have joined forces in order to create a cruise option with fully integrated operations between ports and cities. The Baltic Sea offers an unseen variety of destinations, sights and adventures for everyone. And with the region’s exciting history, rich traditions and spectacular nature, Cruise Baltic invites to a cruise experience out of the ordinary where one can visit 10 countries on a string and experience oceans of adventures.” (Cruise Baltic Northern Europe, 2013)

The quality of services offered in the cruise destinations and the standard of ports’ infrastructure are important factors for the development of cruise ship tourism. Moreover, the readiness of cruise tourist destinations, to satisfy tourist demand for various types of nautical tourism, is also a key determinant for development. The research showed a great need for working out a better cooperation between local authorities of the cruise destinations, cruise ship owners, as well as making informational campaigns for residents, but also managing of the development of the local economy.

3.A CONFLICT OR A PARTNERSHIP BETWEEN CRUISE SHIP OWNERS AND CRUISE DESTINATIONS

Analyzing the development of cruise tourist destinations in Croatia in recent years, one comes to the conclusion that this development has taken place in a manner more or less uncontrolled. The cruise industry is profitable for all involved parties, but especially for owners of cruise ships, tour operators and public budgets in cruise destinations. The tourist industry has been being developed spontaneously to the point until the capacity of a tourist destination will be exceeded. This process is carried out satisfactorily as long as the destination is not overcrowded by thousands of tourists and they are still happy with staying. This case is especially seen in the destinations that are, due to the spatial distribution of destinations, saturated with cruise ship tourists. The sustainable tourism development can be a suitable solution of this problem. It should be managed by local authorities and the groups involved in tourism development in a cruise destination.

Dubrovnik is an excellent example and has around 2.6 million tourists, of which 1.1 million tourists are from cruise ships. "In recent years Dubrovnik has become one of the top five Mediterranean destinations, which makes it one of the most attractive and frequented cities, i.e. cruise ports, in this part of Europe. Every year, the ships owned by international shipping companies bring a huge number of passengers, which will reach one million of visitors in 2010, including those from the largest ships, as well as smaller ones and the most luxurious floating hotels." [Dubrovnik Tourist Board, 2013.]. It sometimes happens that a couple of cruise ships arrives to Dubrovnik in parallel and then thousands of tourists want to visit the city at the same time. Then a logistical problem occurs and the problem with ensuring the quality of tourist service and the standard of tourists' holiday.. The question is how to solve this problem?

Fundamentally, a solution of this problem lies in the question of adapting of tourist packages to the tourists' needs and increasing of the indicators "a value for money". It is necessary to work out good rules for cooperation between cruise companies, ship owners and local authorities and also a tourist lobby in cruise destinations because it is now in its infancy. The lack of a partnership between cruise companies and local authorities of a cruise destination is a reason for tourists' dissatisfaction. A lot of tourist destinations, with a short period of staying on land, are included into tourist packages of cruise voyages, what also cause tourists' fatigue, and in the consequence, this is a reason of tourists' discontent, but also, what is important, It is very nuisance for residents in the tourists destination areas.

The lack of an adequate cooperation between cruise companies, hoteliers and tour operators in tourist destination areas, can lead to create an unsympathetic atmosphere, which may have negative consequences for the development of the tourist market in the future. To avoid the conflict of interests, It is necessary to develop a model of cooperation. The fact, that this problem can be solved, and

that hotel guests and visitors from cruise ships do not have to be in a conflict of interest, there are a few examples in the Atlantic coast of Europe, especially on the coast of England. Southampton is an excellent example where local tour operators and hoteliers agreed with cruise companies for preparation of tourist packages, so that, mostly cruise ship tourists are checked in hotels for at least one night. (Morgan, 2013.) In this way, tourists from the cruise ships usually stay much longer in the destination, what influenced significantly upon the increase of satisfaction among tourists and caused the reconciliation of interests of cruise ship tourists, on the one hand and hotels guests, on the other hand. The question remains, how this problem is reflected in the consumption of tourists at an elite destination?

4. A CASE STUDY, THE CITY OF DUBROVNIK

The port of Dubrovnik in 2013rd achieved a record number of cruise arrivals and arrivals from cruisers (Figure 2). This shows that the Dubrovnik, as highly attractive tourist destination, has been still developed. Given the number of cruise ship tourists in the port of Dubrovnik, (Figure 3) in a period of 16 years, their arrivals were developing at an average annual rate of 18%, while the world of cruising is developing at a rate of 11%.

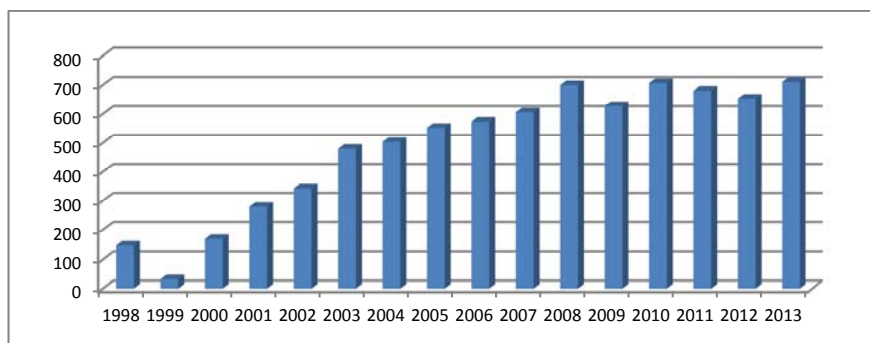


Figure.2. The number of cruise vessels visiting the port of Dubrovnik

Source: Statistics, Dubrovnik Port Authority 2013.

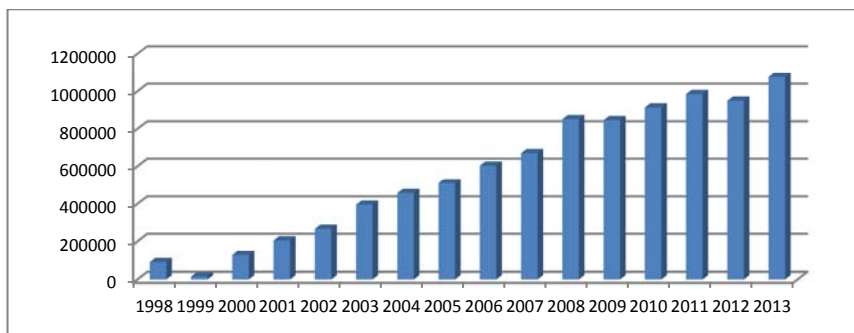


Figure.3. The number of passengers of cruise vessels visiting the port of Dubrovnik

Source: Statistics, Dubrovnik Port Authority 2013

Taking into the consideration the factors influencing upon consumption, observed with statistical and analytical aspects, there are a few important parameters such as:

- a duration of a tourist's stay
- a size of a cruise ship
- a tourist's age and nationality
- a goal of a visit: work or tourist.
- a number of a crew and tourists on aboard.

According to the research made by TOMAS Cruising in 2006, duration of tourists' stay ranges from 4.4 hours to 13.3 hours. (TOMAS PP, Slajd 11) The length of a stay depends on the size of a cruise ship. A small luxury cruiser, called Boutique Ship (Berlitz, 2006, p.154.), which has fewer than 200 tourists, stays on average of 13.3 hours in the port. Tourists on luxury ships are very demanding and vessel owners must respect the requirements of the customer and meet their expectations. Therefore, tourists from the luxury cruise ships tend to remain longer in the ports. On the other hand, the duration of tourists' stay, who arrive by large cruisers (over 2,000 tourists), amounts only to 4.4 hours. The crew of cruise ships usually stay for one hour shorter at the destination. The average duration of stay of tourists and crews amounts to 5 hours at the destination.

Subsequent studies have shown that in the domain of length of a stay almost nothing has changed. (Luković & Božić, 2012, p. 9 – 28.) Studies conducted in 2011 showed that younger guests spend significantly less than the olders, and the differences are very significant. (Isto, p 9-28.).

Regardless of nationality, most Americans consume (51€) and English (49€) and at least the Italians (31€). (TOMAS 2006. Slajd 20) The crew spent about 20% less, and the consumption structure of the crew is more focused on shopping. In 2006, an average tourists' consumption in Dubrovnik was 37€ (Isto, slajd 17), and the recent research has shown that around 40€ (Luković & Božić, 2012., p. 9

– 28). The question is whether these are the expected spending of cruise ship tourists in the elite destination?

The Research TOMAS Cruising in 2006 showed the depth of the problem of consumption in Dubrovnik and groundless belief that an elite destination also means high spending of cruise ship tourists. Taking the average length of a stay of tourists and crew from the cruise ships in Dubrovnik, which is similar in other Croatian destinations, and is about 5 hours, and if there are abolished the differences in terms of nationality of tourists, taking only the average consumption which annuls the differences in terms of tourists' age, one can get to the methodology for analysing of consumption.

Table 1.

Expenditures of day-visitors (USD). Full years 2008-2010

What buy	souvenir	postcard	clothing	Autochthonous drinks	artwork	books	Others
How buy (u%)	62	36	19	16	16	12	Less than 9%

Sources: *TOMAS Cruising (2006). Institute for tourism, Zagreb*

Tourists' spendings are focused mostly on souvenirs (62%), but also on cards (36%), while the demand on other products and services is much less frequent.

It is worth noting, the value and volume of consumption is lower in elite destinations. The research has shown that consumption in less attractive tourist destinations is significantly higher. For example, in Zadar cruise ship tourists spend 82€ and in Split - 71€. If it is converted into consumption per an hour, we have the following results:

- Dubrovnik 7.4 €/ h
- Split 14.2€/ h - 91.19% more than in Dubrovnik
- Zadar 16.4 €/ h - 121.6% more than in Dubrovnik

Thus, an elite destination does not require high consumption. The research conducted in 2011th showed the following:

- An average consumption in Dubrovnik, Zadar and Split still lingers on the results of the 2006th
- Tourists, travelling by sea, plan to spend on average of 153€ in a visited tourist destination, and 434€ on aboard of a cruise ship,
- In Dubrovnik, lots of visitors say, "I do not have to spend money" and "I was there, too and I'm sorry that I came by a cruise ship to Dubrovnik"
- Cruise ship tourists still spend much more money in Zadar and Split, because they believe that prices are too high in Dubrovnik
- "Value for money" - about 20% of tourists judged unsatisfactory and regret that they came to Dubrovnik by a cruise ship. Even with 10% of those, who were quite disappointed, as they went on a cruise

- As many as 20% of guests at the resort do not buy anything.

Buying behaviors of tourists travelling by sea, both on the ship and places visited, have not been recognized enough, yet. The research in this area should be carried out on a regular basis and on a larger scale, what would make possible to prepare a segmentation of a tourist demand and to diagnose the needs of potential future customers.

5.A CASE STUDY, THE CITY OF GDAŃSK

The Region of Gdańsk is considered to be one of the most attractive tourist regions in Poland. The thousand-year-old Gdańsk is the most monument-packed city of the "Baltic Europe". Most of the monuments in Gdańsk are located near the heart of its Old Town District. It "is a great tourism and cultural centre which today offers a range of attractions like sea sandy beaches, clean lakes and forests, historical monuments (the Old Town Hall in Gdańsk), lots of museums, exhibitions and galleries opened for all the year and a great number of entertainments. Thanks to location on the sea coast, there are excellent conditions to practice water sports like: windsurfing, sailing, rowing and also for walking at the sandy beaches. The city of Gdańsk also offers interesting occasional and seasonal events such as: Organ Music Festival in Oliwa, Celebration of Sea Days, Gdańsk Summer, the St. Dominic's Fair which has a long tradition and takes part in July and August annually,"(Kizielewicz, 1997, p. 18) and Feta - International Festival of Open Air and Street Theatre "Baltic Sail" International Sailing Rally - Sail Gdańsk and many others.

The City of Gdańsk is also the purpose of tourists' travels arriving by the Baltic Sea. The tourist season, in this region of Europe, is quite short and it lasts about 4 months from mid-May to mid-September. At that time, Gdańsk is visited by cruise ships bringing tourists from different parts of Europe, and sometimes the world. Among the most impressive units, which visited the ports of the Region of Gdańsk, there are: Queen Victoria, Navigator of the seas, Vision of the Seas, Emerald Princess, Star Princess, Millennium, Constellation, Costa Magica, AIDA Luna, Opera, Voyager and others. The large cruise vessels coming to the ports of the Region of Gdańsk are great tourist attractions both for local societies and tourists. The greatest of them, Navigator of the Seas, can take on aboard 3840 passengers and 1557 staff, and its length exceeds 300 metres.

The port of Gdańsk is visited by several dozens of cruise ships annually. (Figure 4) The Board of the Port of Gdańsk makes treatments to increase the number of vessels, but competition on the market of the Baltic Sea is very strong and it is not an easy task. In recent years, the number of passengers visiting Gdansk amounts to 8 thousand on average. (Figure 5).

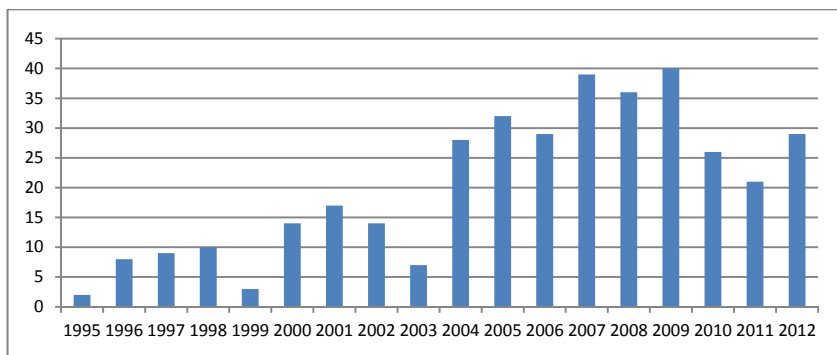


Figure.4. The number of cruise vessels visiting the Port of Gdańsk

Source: Zarząd Morskiego Portu Gdańsk S.A., 2012.

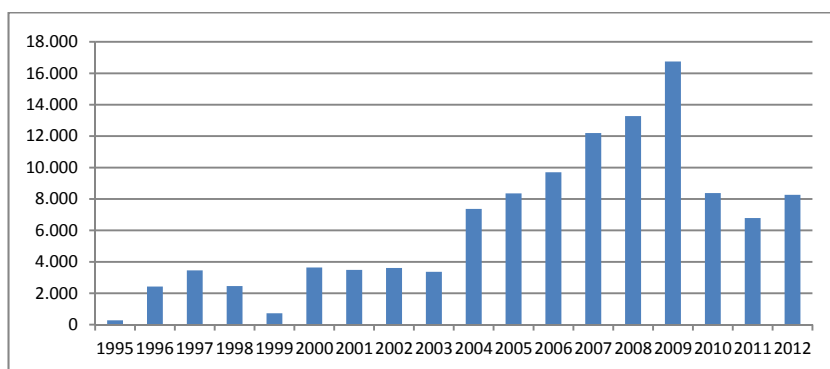


Figure. 5. The number of passengers of cruise vessels visiting the Port of Gdańsk

Source: Zarząd Morskiego Portu Gdańsk S.A., 2012.

Cruise ships in the port of Gdańsk usually stay from 6 to 15 hours, and at this time excursions for tourists with a variety of interests are organized. Sightseeing of the City of Gdansk is in an every tourist programme, but also while longer stays, tourists are taken to the City of Malbork 60 km away from Gdansk, where they visit a medieval castle, which is considered to be the largest brick building in Europe and is on the UNESCO list. Tourists also visit the Kashubian Lake District, which is famous for its natural beauty and folk tradition. In addition, travels to the Hel Peninsula are an alternative tourism program proposed for tourists. In addition, for active tourists, there are prepared tourist packages with golf, tennis or biking, and even boat voyages on the Bay of Gdańsk.

“Originally, tourists travelled by the purposes of leisure or religion, but now tourist became more demanding and expect diversity from the organizers of marine tourism in order to satisfy their needs. In some regions of the world,

special forms of marine tourism have developed, due to the cultural, geographical, economic or social separation of these areas. "(Kizielewicz, 2012, p. 111). "Adopting the purposes of tourists' travels, as a criterion for classification of forms of marine tourism, we can make a division as follows:

- *Cultural tourism cruises*, i.e.. sightseeing of the coastal towns, national parks, fishing villages, the underwater reserves, places of religious
- *Adventure cruises*, i.e.. fishing cruises, diving cruises (scuba diving, cave diving, floors diving or in cabins diving)
- *Themed cruises*, i.e.. Valentine cruises, Christmas cruises, golf-related cruises, amateurs gambling cruises and cruises for seniors, photographic, women, singles and others
- *Educational cruises*, i.e.. culinary cruises, dance cruises, learning foreign languages cruise etc.
- *Business cruises*, i.e.. inclusive cruises, incentive cruises and business meetings, seminars, conferences, symposiums, congresses
- *Entertainment cruises*, i.e.. dancing party at sea
- *Health cruising*, i.e.. cruises with a package of SPA & Wellness, cruises surgery, fitness cruises
- *Ecotourism cruises*, i.e.. cruises to pristine areas.

The division of forms of marine tourism, proposed above, has not been completed. The diversity of tourists' needs show directions for tour-operators how to create new tourist products to gain a competitive advantage in the market."(Kizielewicz, 2012, p. 111-112). Cruise ships, coming to the port of Gdańsk, are serviced by four major travel offices: Baltic Gateway, Sanus Travel, Mazurkas Travel and Sport Tourist. They are able to arrange all tourist packages that can satisfy all tourists' preferences and needs, due to their expectations and variety of interests.

Tourists, arriving by sea to Gdańsk, (Fig. 2) as a rule, have bought travel packages including meals and accommodation on a cruise vessel and transport and sightseeing tours in the tourist destinations. Therefore, additional expenses that tourists have in the visited cities only concern the purchase of souvenirs, desserts and drinks. 49,1 % of expenditures of day-visitors are committed for private shopping. (table 3.).

The Institute of Tourism in Warsaw shows, that on average in Poland, a day-visitor' expenditures amount to approximately 113 USD (table 2.). One-third of tourists, travelling by sea on cruise vessels, buy tourist packages including all services on aboard and also sightseeing of tourist destinations. However, one-fourth of tourists of cruise vessels, buy only services guaranteed on aboard. These are tourists, who are potential clients for local tour operators, which offer them a variety of individual travels and activities on land.

Table 2.

Expenditures of day-visitors (USD). Full years 2008-2010

A kind of spendings	2010	2009	2008
Total Average*	113	103	135
Ukraine	255	236	395
Germany	86	94	139
Lithuania	104	83	88
Russia	217	104	140
Belarus	199	198	245
Slovakia	111	85	95
Czech Republic	83	86	59

*) Weighted average;

Source: surveys by Institute of Tourism, 2008-2010

While a cruise ship stays in the port of Gdańsk, at the reception desk on board, local tour operators encourage tourists remaining on board to purchase a variety of individual excursions. Most of tourists decide to take part in extra tours, and thanks to that, local entrepreneurs have also financial benefits.

Table 3.

Structure of day-visitors' expenditures (%). Full years 2008-2010

A kind of spendings	2010	2009	2008
Food	6,4	6,8	9,3
Transport	12,1	12,7	11,3
Services	3,3	0,9	2,8
Private shopping	49,1	51,9	43,4
Shopping for resale	16,3	15,8	19,1
Other, not specified	12,8	11,9	14,1

*) Weighted average;

Source: surveys by Institute of Tourism, 2008-2010

„An every cruise ship shall pay various port charges, depending on the size and number of passengers on board. The largest units even pay about 11 thousands euro. In addition to this, tourists from cruise vessels leave money in the coastal cities.”(Kopiecki, 2013,p.1). Among the tourists, coming on cruise ship to polish ports, there are especially: Germans, Scandinavians, the French and Italians and also Americans. In Poland so far, a study analysing the behaviour of tourists buying travelling by sea, have not been carried out. Available analysis, from a survey conducted by the Institute of Tourism, only report about the behaviour of foreigners visiting Poland.

6. CONCLUSIONS

Analysis of the expenditure of tourists travelling on cruise ships, made in two elite tourist destinations: Gdańsk and Dubrovnik, located in two different regions of Europe, it is: the Mediterranean and the Baltic, and comparison analysis with other destinations, have broken the basic hypothesis, which were set up at the beginning. It means that an elite destination does not necessarily produce an elite consumption. Tourists from cruise ships, when they find themselves in the role of consumers, then they behave very carefully. At the elite resort consumption takes place in accordance with the motivation, capabilities and decisions of tourists as consumers, but this consumption occurs in response to the quality and organization of supply at the destination. A wide selection and well organized supply in Zadar realized consumption from 16.4€/h, while a supply in the elite destination – the City of Dubrovnik - realized consumption only 7.4€/ h. The similar phenomenon has been observed in the City of Gdańsk, where tourists on average spent only 8,37€/h. It is obvious that some consumers do not buy anything during a travel, when they paid for the whole tourist packages at tour operators or owners of cruise ships. The fact that this is an elite destination, it is not enough for tourists to spend more money. Finally, it gives a foundation to make a conclusion that consumption of cruise ship tourists takes place under the strictly rules of consumption, no matter what a cruise destination is.

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THE IMPORTANCE OF COGNITIVE DETERMINANTS IN TOURISM DESTINATION IMAGE FORMATION

JEL classification: L83

Abstract

The increasingly pronounced global ties, which affect social, economic, political, technological and cultural fields, have left a large imprint on the tourism market. There is growing competitiveness between tourism destinations, which try to find the best development strategy under the newly-arisen conditions. Under contemporary tourism development conditions, a destination must be observed as a basic functional unit that can respond to the demands of the modern tourism market by using its uniqueness and individuality for the creation of new, diversified products based on specific features of certain tourism destinations. The paper analyzes and researches the cognitive determinants that have an influence on the formation of a destination's positive image, using the case of the Dubrovnik tourism destination. The objective and the purpose of the research is to determine the importance of stimulus factors and socio-demographic characteristics of tourists visiting a holiday destination on image formation, which is a deciding factor in the creation of tourism policies. Empirical research was employed using a questionnaire survey on a sampling of 355 randomly-chosen tourists visiting the Dubrovnik tourism destination. The results obtained by this research indicate a lack of importance of cognitive determinants for an image destination formation.

Keywords: image, tourism destination, cognitive determinants

1. INTRODUCTION

Greater competition among tourism destinations were significantly influenced by new demographic, socioeconomic and technological developments. These developments mark the areas on which destinations mainly compete focusing on their perceived images relative to competitors. Tourism destinations can no longer use comparative advantages as a basis for their survival on tourism markets due to the strong competitiveness that dominates the tourism market. Instead, they must emphasize competitive advantages separately by forming an image of the destination that directly affects the tourist's perception and decision-making process on the choice of a destination. In the past four - decades the scientific researchers have put considerable focus to evaluation and analysis of tourism destination image. The reason is the relevance of tourism contribution to economic development of many countries. This attention resulted in the better understanding on the one side of the tourist behaviour and on the other side it resulted in better approach of defining destination tourism policy.

From the theoretical point of view, there is a general agreement that the cognitive component is an antecedent of the affective component and that the evaluative responses of consumers evolve from their knowledge of the objects. Regarding image formation the need for uncovering additional variables as image determinants has been recognized. Stimulus factors (information sources and previous experience) and personal factors (social and psychological variables) were included in this research. Previous studies have explored the role of stimulus factors and socio-demographic characteristics of tourists visiting a tourism destination on image formation. However, theoretical and empirical research on the influence of psychological factors on destination image has been limited. Therefore the purpose of this paper is to emphasize the importance of researching the cognitive determinants in tourism destination image formation. Understanding the importance of this group of determinants can be a good base and instrument for the selection of adequate tourism policies for destination management.

2. LITERATURE REVIEW

The term of an image is connected to the psychologically warped picture of objective reality that is formed in the consciousness of each individual, whose behaviour is connected to the projected image. An image is considered to be the mental expression of an individual that has developed from a collection of impressions derived from an overall group of impressions. The scientific approach to defining an image originates as far back as the fifties of the twentieth century from authors who established that human behaviour depends more on this formed picture of reality than it does on reality itself (Boulding, 1956; Martineau, 1959). An image represents the known picture of a company, product, person, process or situation that an individual forms based on overall experiences, attitudes, opinions and perceptions that are more or less in line with real features (Kesić, 2003). The image of a certain country is a set category based on civilized,

cultural, commercial, historical, geographical, political and sociological aspects. As a whole, it is very specific and measurable, and the positive or negative result of all the fore mentioned (Kesić and Piri Rajh, 2001).

Specifically, scientific circles began to analyze the image of a tourism destination in greater detail forty years ago. The image of a tourism destination is represented by a group of beliefs, ideas and impressions that people have regarding the destination (Crompton, 1979; Gunn, 1972). The image of tourism destination can be also defined as the expression of all objective knowledge, impressions, prejudice, imaginations and emotional thoughts an individual or group might have of a particular place (Lawson & Baud-Bovy, 1977). The image of tourism destination is an artificial imitation of the apparent form of a destination that include identity, ideas and conceptions held individually or collectivity of destination. Presentations of a destination image have to allow for the fact that is generally a matter not of creating image from nothing but of transforming an existing image (WTO, 1993). The tourism destination image is an important factor because it affects the potential tourist's decision-making process and also affects the level of satisfaction with the tourist's experience, which is critical in terms of encouraging positive word-of-mouth recommendations and return visits to the destination (O'Leary & Deegan, 2005).

Understanding the formation of a tourism destination image is one of the opportunities in developing a destination's competitive advantage on the tourism market, as the formation of a positive image of a tourism destination is one of the conclusive factors in the overall impression that attracts tourists to visit a destination. The basic features of a tourism destination's image are frequently considered to be complex, relative, multi-layered, and dynamic (Gallarza, Saura & Garcia 2002). The image of a tourism destination is a complex variable because it is influenced by internal and external environments that are formed by numerous factors (Ryglova & Turcinkova, 2004). Many authors consider that destinations with a pronounced, convincing and positive image have a greater chance of being chosen by potential tourists, and have a valuable role in many diverse models regarding travel decisions made by tourists (Goodrich, 1978; Woodside and Lysonski, 1989; Schmoll, 1977; Mouthino, 1984; Hunt, 1975; Kent, 1984, Telisman Kosuta, 1989).

Tourist forms an image of a destination through a process that has set levels, such as the accumulation of certain images and the creation of a unique image of the destination based on these images. The initial image is modified by additional information and the formation of a picture that is an incentive. This is followed by making a decision to visit the destination, visiting the destination, comparing it with competitors, returning home and reshaping the image on the basis of acquired knowledge (Gunn, 1988). According to this, it can be concluded that there are two kinds of images: an organic image that is based on non-commercial information and an induced one that is based on commercial information. A tourism destination image will influence a tourist in the process of

choosing a stay, the subsequent evaluation of that stay and a tourist's future intention (Bigne, Sanchez and Sanchez, 2001).

A tourism destination image should be composed of perceptions of individual attributes (such as climate, accommodation facilities, and friendliness of the people), as well as more holistic impressions (mental pictures or imagery) of the place. Functional-psychological characteristics could be perceived as individual attributes or as more holistic impressions. On the attribute side, there were numerous perceptions of the individual characteristics of the destination (from functional to psychological). On the holistic side, the functional impression consisted of the mental picture (or imagery) of the physical characteristics of the destination, whereas the psychological characteristics could be described as the atmosphere or mood of place. A tourism destination image could range from those perceptions based on "common" features to those based on "unique" features. They suggested holistic and unique images were important in categorizing a particular destination and used to differentiate the target markets (Echtner and Ritchie, 1993).

Tourism destination's image consider that an image is formed by a tourist's rational and irrational interpretations. These are two narrowly connected components: cognitive and affective. On the one hand, there is the formation of tourism destination's image in which there is an emphasis on the importance of cognitive factors (Hunt, 1975, Phelps, 1986, Fakeye and Crompton 1991, Echtner and Ritchie, 1993, Walmsley and Young 1998, Chaudhary 2000, Alcaniz, Garcia and Blas 2009). According to the analyzed literature, the formation of tourism destination image is formed by three factors: the perception of the quality of the tourist experience, the perception of the tourism attractions or elements of the tourism destination that attract tourists, perception of the environment and the value created by the environment. The formation of such a cognitive tourism destination image does not only depend on the information gathered by an individual from various sources, but also on its individual features (Jakeljić, 2010). However, many authors hold that besides the cognitive component, the affective one is also highly important (Gartner, 1986; Dann, 1996; Mackay and Fisenmaier, 1997; Baloglu, 1998; Baloglu and McCleary, 1999; Kim and Richardson, 2003; Beerli and Martin, 2004). Alongside these components, the authors also emphasize the conative one, but they do not go into the problems of the conative dimensions. Rather, they explain and research the primary cognitive and affective dimensions, analyzing them as dependent variables that form under the influence of various independent variables, such as motivating, demographic and informational-communication factors. Affective component of image of tourism destination is largely dependent on the cognitive evaluation because tourists may developed a positive attitude towards destination when they have adequate level of positive attributes of destination, otherwise they develop negative attitudes towards destination (Holbrook, 1978, Gartner 1993, Chen and Uysal 2002, Kim and Richardson 2003, Pike and Ryan, 2004, Rashid and Ismail 2008). The cognitive component has a factual character made up of trust and

knowledge of the physical attributes of a destination, the affective component is tied to feelings regarding the physical attributes that affect how a destination is evaluated, while a conative component becomes significant when a destination is selected (Križman, 2008).

Personal and simulative factors are the key factors in the formation of a destination's image. Diverse information, age, education, socio-psychological motivation directly influences the affective component, whereas the influence of perceptive-cognitive values is more pronounced than tourism motivation, and they state that the overall image is more influenced by affective than by cognitive components (Baloglu & McCleary, 1999).

Considering a differentiation between cognitive and affective evaluations leads to the great understanding of how an individual's values affect image formations. That is, while the cognitive component reflects knowledge of the product's characteristics, the affective components measure the emotional response to the destination product. These two aspects are at the two ends of the continuum along which the service experience can be evaluated and classified (Gil & Brent-Ritchie, 2009).

According to the analyzed literature, there are three main approaches for exploring a tourism destination image, such as a cognitive or perceptual point of view, by estimating attitudes that tourists have concerning the characteristics of the destination's product, then from an affective point of view based on the emotional experience of the destination and a holistic approach. All studies pointed out the cohesion between different variables, such as visitation intention, impact of previous visitation, geographical location, and purpose of the trip, socio-demographic variables and destination image. Therefore this paper research tourism destination image formation from the cognitive or perceptual point of view.

3. DATA AND METHODOLOGY

Information sources are the forces which influence the forming of perceptions and evaluations. Woodside and Lysonsksis (1989) pointed importance of understanding the impact of information sources on the perceptions of cognitive evaluations but not on affective component of destination's image. Related model was developed by Um and Crompton (1990) and Um (1993), under which cognitive evaluation of attributes are formed by external factors (information sources and social stimuli). Gartner (1993) noted that the type and amount of external stimuli received influence to formation of cognitive but not of affective component of image. There the first hypothesis is:

H1: Information sources have a positive impact on the cognitive evaluation of the Dubrovnik as a tourism destination

The socio-demographic variables influence perceptions of products and tourism destination (Um and Crompton 1990; Woodside and Lysonski 1989). On the basis of research findings this paper tests the influence of age, education and annual household income, hypothesizing that they don't have a significant impact on the cognitive evaluation of the Dubrovnik as a tourism destination:

H2: Demographic variables (age, education and annual household income) don't have a significant impact on the cognitive evaluation of the Dubrovnik as a tourism destination

Previous researches pointed out that cognitive evaluations form the overall image of a destination (Stern & Krakover, 1993). Cognitive components refer to beliefs and knowledge about objects (Gartner, 1993; Holbrook, 1978). According to the above-mentioned theoretically accepted knowledge, it is assumed that cognitive evaluations influence the overall tourist destination image. Its acceptability will be tested on the image of the Dubrovnik, using the following hypothesis:

H3: Cognitive evaluations significantly influence the overall image of the Dubrovnik as a tourism destination

The results obtained from the survey were analysed using different analytical tools, including methods of analysis and synthesis, inductive and deductive methods, method of generalization and specialization, and different statistical methods. As dependent variable was measured on ordinal scale Kruskal-Wallis test was used. All statistical analyses were made using an SPSS package version 20.0.

4. RESULTS

An empirical research was carried out in order to emphasise the significance of a cognitive determinants in tourism destination image formation. In order to identify the current situation in the Dubrovnik tourism destination, survey research was carried out using a sample survey taken from among 355 randomly-chosen tourists (only foreign) that stayed in the Dubrovnik tourism destination. The research was carried out from April 1st to October 1st, 2009. In total, 355 questionnaires were administered personally to the respondents. A structured questionnaire, including 6 grouped questions, was used. Overall image was measured applying 7-point Likert scale ranging from extremely negative to extremely positive. Cognitive evaluation that includes quality of experience, attraction, value and environment is mediator between exogenous variables and the final endogenous variable overall image (Kesić, Vlašić, Jakeljić, 2010). The first group of questions concerned the principal component analysis of cognitive evaluation, where evaluation was measured using three variables: quality of experience (COG_1) with 8 items (Crombach's alpha $\alpha=0,744$), attraction (COG_2) with 3 items (Crombach's alpha $\alpha=0,703$) and value/environment (COG_3) with also 3 items (Crombach's alpha $\alpha=0,588$). The second group of

questions was about the informational and experimental dimension of the destination familiarity index and the last group of questions represented the demographic profile of respondents. In the research, exogenous variables included information sources, age, education and annual household income. Information sources are characterized by different sources of information which factored out into the following groups: sponsored communication (INFO_2 SC) with four items (Crombach's alpha $\alpha=0,726$), professional advice (INFO_1 PA), also with four items (Crombach's alpha $\alpha=0,712$) and world-of-mouth (WOM) sources from friend and family (single item measure).

Table 1

Respondent's profile

Demographic characteristics	Frequency	Percentage (%)
Age		
18-34	115	32,7
35-49	115	32,4
50-64	89	25,1
65 and over	35	9,9
Gender		
Male	175	49,3
Female	180	50,7
Marital status		
Single	114	32,1
Married	202	56,9
Divorced/widowed/separated	39	11,0
Education		
High school and less	74	20,8
College	215	60,6
Graduate school	66	18,6
Annual household income		
under €15.000	56	15,8
€15.000-€29.999	115	32,4
€30.000-€44.999	99	27,9
€45.000-€59.999	50	14,1
€60.000-€74.999	23	6,5
€75.000-€89.999	7	2,0
€90.000 or more	5	1,3

Source: Authors research

The results of the descriptive statistical analysis of the questionnaire indicated a respondent profile. About 50,7% of the respondents were female and 49,3% were male. The age groups are represented as follows: 32,7% from 18-34, 32,4% from 35-49, 25,1% from 50-64, 9,9% from 65. In other words, 65,1% were young and middle aged (18 to 50), 56,9% were married, 32,1% travelled alone, while 11% of them were divorced or widowed. The education structure showed that 78,6% of respondents completed high school and higher education, which indicated that a large proportion of the sample was well educated. The great

majority of the respondents 60,3% have annual household incomes from 15.000 to 60.000 €. Table 1 shows the respondents' profile.

H1: Information sources have a positive impact on the cognitive evaluation of the Dubrovnik as a tourism destination

Table 2
Information sources and cognitive evaluation of the Dubrovnik as a tourism destination

		Mean Rank INFO_1 (PA)	Mean Rank INFO_2 (SC)	Mean Rank (WOM)
COG_1	1	267,00	0,00	271,23
	2	247,61	229,88	284,16
	3	228,60	248,99	257,26
	4	288,94	275,98	256,50
	5	319,65	331,72	297,03
COG_2	1	245,60	0,00	207,27
	2	284,05	270,31	257,08
	3	238,99	206,10	251,89
	4	275,95	292,55	263,61
	5	322,95	357,51	303,98
COG_3	1	239,70	0,00	283,68
	2	262,55	208,46	274,08
	3	248,72	247,91	249,13
	4	276,58	278,20	262,21
	5	298,26	325,61	295,45

Table 3
Results of the Kruskal-Wallis test

	COG_1	COG_2	COG_3	COG_1	COG_2	COG_3	COG_1	COG_2	COG_3
Chi-Sq.	32,851	21,256	11,464	19,813	64,719	21,737	17,967	15,498	18,852
df	4	4	4	3	3	3	4	4	4
Asym. Sig.	0,000	0,000	0,022	,000	,000	,000	0,004	0,005	0,003
Group. Var.	INFO_1 PA			INFO_2 SC			WOM		

p is lower than 0,005 and shows that there is statistically significant difference in information sources and cognitive evaluation of Dubrovnik as a tourism destination. Those tourists who strongly agreed that information sources (sponsored communication, professional advice and world-of-mouth) are very

important considered that the quality of information sources have direct impact on cognitive evaluation of tourism destination such as on quality of experience, attraction and value/environment.

H2: Demographic variables (age, education and annual household income) don't have a significant impact on the cognitive evaluation of the Dubrovnik as a tourism destination

Table 4

Demographic variables and cognitive evaluation of the Dubrovnik as a tourism destination

	Education	Mean Rank Education	Age	Mean Rank Age	Annual household income	Mean Rank Annual household income
COG_1	High school or less	285,97	18-34	258,01	under €15.000	273,06
	College	262,88	35-49	273,65	€15.000-29.999	265,07
	Graduate school	280,42	50-64	283,26	€30.000-44999	281,29
			65 or older	289,50	€45.000-59999	267,40
					€60.000-74999	313,42
					€75.000-89999	186,45
					€90.000 or more	235,67
COG_2	High school or less	287,82	18-34	264,44	under €15.000	244,14
	College	271,68	35-49	275,64	€15.000-29.999	239,63
	Graduate school	249,21	50-64	281,60	€30.000-44999	292,01
			65 or older	267,11	€45.000-59999	312,35
					€60.000-74999	333,50
					€75.000-89999	324,95
					€90.000 or more	225,67
COG_3	High school or less	291,70	18-34	255,93	under €15.000	250,89
	College	261,52	35-49	293,18	€15.000-29.999	260,18
	Graduate school	272,94	50-64	260,60	€30.000-44999	285,07
			65 or older	283,54	€45.000-59999	270,86
					€60.000-74999	346,33
					€75.000-89999	245,00
					€90.000 or more	211,67

Table 5

Results of the Kruskal-Wallis test

	COG 1	COG 2	COG 3	COG 1	COG 2	COG 3	COG 1	COG 2	COG 3
Chi-Sq.	2,987	3,854	4,244	3,708	1,268	7,896	8,643	26,257	15,266
df	2	2	2	3	3	3	6	6	6
Asym. Sig.	0,225	0,146	0,12	3,708	1,268	7,896	0,195	0,000	0,018
Group. Var.	EDUCATION			AGE			ANNUAL HOUSEHOLD INCOME		

p is lower than 0,005 only in the case of the annual household income and shows that there is no statistically significant difference between demographic variables and cognitive evaluation of Dubrovnik as a tourism destination only in the case of the annual household income. Those tourists who have between 60.000 and 74.999 € have direct impact on cognitive evaluation of tourism destination such as on quality of attraction and value/environment. Therefore it can be concluded that hypothesis is confirmed.

H3: Cognitive evaluations significantly influence the overall image of the Dubrovnik as a tourism destination

Table 6

Correlation cognitive evaluation and overall image of the Dubrovnik as a tourism destination

		Mean Rank COG 1	Mean Rank COG 2	Mean Rank COG 3
OVERALL IMAGE	2	115,5	115,17	164,11
	3	215,48	199,75	179,67
	4	280,97	249,95	284,63
	5	370,23	326,15	345,71

Table 7

Results of the Kruskal-Wallis test

	COG 1	COG 2	COG 3
Chi-Sq.	59,483	62,567	69,694
df	3	3	3
Asym. Sig.	,000	,000	,000
Group. Var.	OVERAL IMAGE		

p is lower than 0,005 in every cases and shows that there is statistically significant difference in cognitive evaluation and overall image of Dubrovnik as a tourism destination. Those tourists who strongly agreed that Dubrovnik as a tourism destination offers very much in quality of experience, attractions and value/environment have direct impact on overall image of Dubrovnik tourism destination. Therefore it can be concluded that H3 hypothesis is confirmed.

5. CONCLUSIONS

In conditions where globalization is affecting the tourism market, the formation of a positive tourist destination image is a necessity, which will differentiate it from other destinations and make it stand out. In order to achieve differentiation, an emphasis must be put on the authenticity and originality of the tourist destination's traditional culture. The image of a tourism destination can be defined as a collection of images, feelings or associations that tourists feel when seeing or mentioning a specific tourism destination. It can be concluded that a destination's image is created on the basis of a lot of diverse information. From another angle, a tourism destination's image can be considered as the picture of a destination that is directed towards a specific tourist segment using promotional activity. This psychological factor is important in both cases, which is formed on the basis of different kinds of information on the destination, stemming from various informational sources during a set time period. For this reason, the image of a destination represents one of the key factors affecting travel decisions for a specific destination, so communication processes hold a very important role on the formation of an image prior to arriving in a destination. Keeping in mind the importance of promotional efforts in the creation of a tourism destination's image, it is necessary to differentiate the three various aspects of using the image of a tourism destination in promotional activity, which are the creation, transfer and acceptance of this image. The objective of such activity is to provide potential tourists with information that will determine their choice of destination.

Analysing cognitive evaluation of image of Dubrovnik as a tourism destination and its antecedents has been shown to be important for managing the destination image. This paper confirmed hypothesis that information sources have significantly impact on image destination formation especially on quality of experience in destination, attractiveness of destination and destination value and environment. Therefore in creating tourism policy of the destinations these determinants must be considered since also hypothesis about impact of cognitive determinants on overall image is confirmed. Demographic variables are not significant for the cognitive evaluation. Keeping in mind the importance of promotional efforts in the creation of a tourism destination's image, it is necessary to differentiate the three various aspects of using the image of a tourism destination in promotional activity, which are the creation, transfer and acceptance of this image. The objective of such activity is to provide potential tourists with information that will determine their choice of destination. Therefore this study presents foundation for further research of destination image of Dubrovnik thus providing insight into future development of tourism.

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**THE IMPACTS OF PRIVATE ACCOMMODATION
ATTRIBUTES ON TOURISM DEMAND**

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Abstract

The private tourism accommodation concept has not been largely represented in the scientific research. It started appearing on the margins of the actual research in the past ten years, namely with a hotel as the most analyzed form of tourism accommodation.

In the structure of tourism accommodation in Croatia in 2011 private accommodation participated with 465 000 beds which represents 49,8 percent of the total capacity and therefore demands more attention.

Using the main marketing postulate where the consumer is the key of each business success, the main goal of this paper is to determinate the attributes of private tourism accommodation which have the main role in selection of accommodation facilities in Dubrovnik as one of the leading tourism destination in Croatia. The main goal will be carried out through the primary research of tourism demand by using modified hedonic model which will represent accommodation capacity utilization rate in relation to selected private accommodation attributes. Ordinary Least Squares (OLS) regression or the related log-linear form have in prior hospitality or tourism applications mostly been used to estimate this type of model. In this paper log-linear specification for the capacity utilisation rate function was used instead of the linear one.

This paper differs from other papers which used hedonic pricing model as it examines the impact of attributes of the actual accommodation units not on price but on capacity occupancy rate.

The explanatory variables of the private accommodation capacity utilization rate, among others, include location, characteristics such as

availability of free parking place, distance to the Old Town, sea view, terrace/garden.

The results of this research will provide instructions and directions to the management of private accommodation in tourism destination in order to increase private accommodation capacity utilisation whereby private accommodation season will be extended. The positive effects of season extension will be two-sided: for destination management the number of arrivals will be increased as well as overnights and receipts and for the accommodation owners increasing of rental receipts will result in their higher satisfaction.

The main finding of the paper is that the prices in the private tourist accommodation are formed solely by owners' intuition whereas accommodation capacity utilization rate is the real reflection of the tourist demand preferences.

Keywords: private accommodation attributes, tourism demand

1. INTRODUCTION

Private accommodation is still in the pioneering phase of the serious scientific research, especially when it is compared to other forms of accommodation and in particular with hotel accommodation.

It is interesting to note down that this concept has attracted attention of very few Croatian economic scientists and the interest expressed in the field can be traced back to the beginning of the 21st century (Bronzan, 2003; Cerović et al., 2010; Petrić i Mimica, 2011; Portolan, 2012; Portolan, 2013). The reasons behind scientific inertia for this rather important aspect of tourist accommodation lie in the fact that there is a lack of information about its key features, functions and the success it has created. In private accommodation capacities in Croatia in 2012 a total of 21.2 million overnights were realized, which is 35% of total overnights (Croatian Bureau of Statistics, access on 10.04.2013). This statistical data clearly points to the fact that the private accommodation needs to be incorporated within the core categories of tourist accommodation capacity. The reason why was this so called extra capacity form of tourist accommodation marginalized, was due to the legal framework limitations as well as statistical one, which are in turn closely intertwined. Also the economists could not reach the agreement on the validity and transparency of the statistical date. Petrić & Mimica (2011) advocate the theory of social aspect in the realm of private accommodation, so to speak in its capacity as an extra income earner, the private earned income for an average Croatian household living mainly on the coast. They believe that this has marginalized this type of tourist accommodation. Portolan has looked at this issue

from a diverse angle because this type of accommodation brings not only direct income to the owner of tourist unit but also has indirect implications in meeting indirect cost of some household goods and services in general and it directly influences purchasing power of the local population and improves economic prospects of the destination on the global map.

According to the author of this paper, the marketing myopia, where the bearers of the tourist accommodation focus on their large scale products, is to blame for rather indifferent approach to private accommodation units. The success of any business is based on rather simple principle of meeting consumers needs. Whilst the owners of private accommodation units consult each other what they lack is a feedback from their consumers even on a smaller scale, there are no officially gathered data by some official tourist body with regards to private accommodation consumer preferences.

Tourist products and services consumers, in this case those sleeping in private accommodation, are by definition tourists willing to indulge in leisure activities according to the criterion of needs.

In the paper private tourist accommodation is regarded as tourist product composed of a number of partial components which put together form an entity of products and services (Burkart and Medlik 1974. in Vanhove 2005; Hitrec 1995). This definition of private accommodation is derived from the previous analysis of the latter combined with the synthesis of the known scientific research.

Hedonic price theory is based on hypothesis that every good or services can be observed as a bundle of characteristics or attributes and are valued for these attributes. Up to date hedonic price model researches focus their research on the co-relation between a given attribute and the price. Furthermore, price value determines the attractiveness of a certain tourist destination but one has to take into account the subjective approach whilst assessing the importance of certain attributes read bundle of characteristics of every good or services.

The primary purpose of this paper is to determine those private accommodation attributes which were primordial whilst choosing a particular private accommodation unit in ownership of a particular individual. The methodology used would be that of modified hedonic price model taking into account the factors of tourist demand. All economists used price as dependable variable in employing hedonic price model. As the focus of this paper are attributes then we can openly call this methodology hedonic attributes model as implicitly discovers which attributes of a certain tourist products and services are meeting hedonistic needs of the tourists.

2. THEORETICAL FRAMEWORK

2.1. Private tourist accommodation

The hectic lifestyle and lack of spare time in the place of residence have lead to the loss of quiet family life and family atmosphere prompting tourists to seek in the place of their temporary residence i.e. during holidays the atmosphere and warmth of a home. As a consequence there is the continued growth in demand for quality, comfortable and fully equipped holiday homes, apartments and studio apartments, capable to offer the feeling of a home, togetherness and pleasure.

The term private accommodation originates from private ownership. Bronzan (2003) states that a much more acceptable term for private accommodation is private hospitality, for the simple reason since accommodation as a neutral word indicates roof over your head while hospitality has a significantly wider meaning and delivers the message that a much more personal approach is being offered.

Private accommodation is defined in the Republic of Croatia as an accommodation type of unit such as rooms, studio apartment, apartment, house for rent for leisure purposes, camping site within certain household area as well as the village type of house used for leisure activities. All of these accommodation units offer extra services such as breakfast, dinner and so forth. In theory there is a uniform quality of private accommodation supply because most of the private accommodation facilities are three star facilities, while in practice the situation is quite different (Petrić and Mimica, 2011). Accommodation facilities within a same category are equipped differently which creates the need to carry out a more detailed analysis of the attributes influencing the overall accommodation price.

It was only at the beginning of the 90's in the last era when the serious economic papers covering the subject of private accommodation started to appear. Analysis of private accommodation, in a different context, has been the focus of research of many scientists ((Warnick and Klar, 1991; Emerick and Emerick, 1994; Getz and Carlsen, 2000; Vasilevska-Nestoroska, 2001; Di Domenico and Lynch, 2007; Cerović *et al*, 2009; McIntosh *et al*, 2011; Petrić i Mimica, 2011) who carried research on terminologically different but from the ownership, structural and functional point of view the similar forms of private tourist accommodation (bed&breakfast, commercial home, family business). Their joint conclusions are that private tourist accommodation as an extensive and insufficiently utilized potential represents a quality foundation for:

- reduction of unemployment and social tensions in a local community through self-employment
- utilisation of local resources and parallel protection of autochthonous products

- reduction of hotel accommodation monopoly through faster adaptation, flexibility and innovativeness
- realisation of new ideas, products and services
- stopping population outflow
- generating direct revenue for community members
- avoiding the leakage of tourism revenue outside the region

2.2. Hedonic pricing model

The earliest reference to the literature of hedonic price seems to be Waugh (1928). In his research which aimed at ascertaining how the consumers relatively value certain characteristics of a product, reached the conclusion that prices of some sorts of fresh vegetable vary depending on the Boston wholesale market and depending on various physical qualities of the vegetable. The term ‘‘hedonic pricing method’’ is generally attributed to Court (1939) who applied it to cars including several technical car qualities in the model. His work was renewed by Griliches (1961) applying it also to car industry in research of consumer preferences when choosing and buying cars.

In 1960s Lancaster (1966) elaborated on the idea of approaching the product as a set of objective attributes rather than a homogeneous entity. Sherwin Rosen (1974) used a conventional utility-maximizing approach to derive implicit attribute prices for multi-attribute goods under conditions of perfect competition. Researches which looked at this subject found that hedonic rather than utilitarian attributes of a product explained greater amount of variation in prices (Rosen, 1974). Results of the research can especially be applied in tourism since the main motive for travel is the wish to enjoy and tourists are more prone to stronger perception of hedonic attributes of a tourist product in comparison with the utilitarian.

Hedonic price analysis is widely used for different goods such as housing and property (Goodman, 1978; Freeman, 1979; Witte *et al*, 1979; Andersson, 2000; Goodman and Thibodeau, 2002; Malpezzi, 2002), wine (Combris *et al*, 1997; Oczkowski, 1994; Nerlove, 1995; Sayer and Moohan, 2007), automobile (Court, 1939; Griliches, 1961), computer (Chow, 1967; Cole *et al*, 1986; Berndt and Griliches 1990).

First study using hedonic pricing in the tourism is Hartmans' (1989) application to the luxury hotels. A year after Carvell and Herrin (1990) examined the implicit prices of hotel amenities for hotels in San Francisco using actual room rates as the dependent variable and only distance from the hotel to Fisherman's Wharf as explanatory variable. In the same year appeared a pioneer investigation on how attributes of holiday packages implicate on overall price by using a hedonic pricing (Sinclair *et al*, 1990). A year after Carvell and Herrin

(1990) examined the implicit prices of hotel amenities for hotels in San Francisco using actual room rates as the dependent variable and only distance from the hotel to Fisherman's Wharf as explanatory variable. In the same year there was a pioneer investigation on how attributes of holiday packages implicate on overall price by using hedonic pricing (Sinclair *et al*, 1990). A series of locally dispersed research on this subject followed whose authors analysed holiday packages from various points of view but using the identical hedonic price methodology (Aguiló *et al*, 2001; Papatheodorou, 2002; Sard, 2002; Haroutunian *et al*, 2005; Thrane, 2005; Mangion *et al*, 2005). After Hartman (1989) and Carvel and Herrin (1990) the analysis of hotel accommodation pricing was the focus of research of many other scientists (White and Mulligan, 2002; Espinet *et al*, 2003; Thrane, 2007; Hamilton, 2007; Andersson, 2010; Hung *et al*, 2010; Chen and Rothschild, 2010; Kushi and Caca, 2010). The authors involved in analysis of the impact of attributes onto overall price of a product or service which does not involve accommodation are Rigall-I-Torrent (2011) who observed the tourism product as a set of public and private attributes with an emphasis on public attributes, and Falk (2008) who investigated the relationship between lift ticket prices and factors that influence the quality of ski resorts.

Little research using hedonic pricing models has been taken in the field of private accommodation (Portolan 2013). The hedonic pricing model in an analysis of non-hotel accommodation pricing was used by Monty and Skidmore (2003) in their research of bed and breakfast amenities, as well as Fleischer and Tchetchik (2005) in the analysis of rural households. Only recently there has been some research works on accommodation units which, according to Croatian Catering Industry Law, are classified as private tourist accommodation with application of hedonic pricing method. The only authors working on these topics are Hamilton (2007) who carried out research on the impact of coastal landscape on the price of seven different types of accommodation included, beside the hotels and guesthouses, bed and breakfast, rooms in private accommodation, holiday homes and flats, Saló and Garriga (2011) who analysed the second-home rental market and Juaneda *et al*, (2011) who made a comparative analysis of hotels and apartments in private ownership using the hedonic pricing model.

The basis of all previously carried out researches was formed on the impact of attributes on the price on the integral product. All the authors were led by the theory that the customers preferences combined with the fluctuations in the demand process affect the price. From the scientific point of view whilst carrying out research into private tourist accommodation in the Republic of Croatia it is impossible and scientifically improper to implement above mentioned theory as the prices are form on the subjective impulse of the owners not taking into account any of the factors such as the competitors analysis, the actual demand, capacity yield in the previous years and so on. This paper differs from other papers which used hedonic pricing model as it examines the impact of attributes of the actual accommodation units not on price but on capacity occupancy rate thus prompting that the former results from the actual demand process. The key

hypothesis of this model is that individual so to speak bundles of characteristics of private accommodation units are linked with a degree of the demand for those units.

3. EMPIRICAL RESEARCH AND RESULTS

3.1. Methodology

Since the tourist cannot create his own bundle of attributes he has to choose from a finite number of multi-attribute bundles, i.e. from a number of private accommodation units with different attributes.

In this article a general model, in which the "product" of a given private accommodation facility F is the embodiment of a set of attributes, was employed (Espinete et al, 2003), so that

$$F_i = (q_{i1}, q_{i2}, q_{i3}, \dots, q_{ik}, \dots, q_{im}) \quad (1)$$

where $i=1, \dots, n$ indexes private accommodation facility and q_{ik} ($k=1, \dots, m$), each of its attributes. Because the private accommodation capacity utilization rate is assumed to be a function of its attributes, the hedonic function for F_i can be considered as follows:

$$CUR = CUR(q_{i1}, q_{i2}, q_{i3}, \dots, q_{ik}, \dots, q_{im}) \quad (2)$$

where the functional form of CUR is assumed to be constant across facilities, though the contribution of each attribute may vary from one facility to another. This set of attributes determines the choices of consumers according to their utility.

Ordinary Least Squares (OLS) regression or the related log-linear form have in prior hospitality or tourism applications mostly been used to estimate this type of model (Thrane, 2007: 316). Following Rosen's (1974) advice and that of the previous researchers in this domain (Espinete et al, 2003; Thrane, 2007; Chen and Rothschild, 2010; Kushi and Caca, 2010, for hotel data; and Monty i Skidmore, 2003; Juaneda et al, 2011; Saló i Garriga, 2011, for other types of accommodation) log-linear specification for the capacity utilisation rate function was used instead of the linear one.

3.2.1. Empirical results analysis

In this paper solely private accommodation facilities within the limits of the city of Dubrovnik from Kantafig to Sveti Jakov are analysed. In 2011 in that area total of 1138 providers of private accommodation were registered. Out of total 1138 providers 33.5% are in Montovjerna/Lapad, 17.8% in Pile/Kono, 17.6% in Old Town, 13.5% in Gruž and 17.6% in Ploče (Internal statistical data Dubrovnik Tourist Board, February 2012). The percentage of accommodation

units in the sample corresponds geographically to the percentage in the total number of providers.

A stratified sample was used based on geographical criteria and random choice of accommodation units. Total 122 accommodation units were analysed, making 10.7% of the total number.

The data were obtained from two Internet travel agents, Dubrovnik Apartment Source and Croatian Travel Agency and one portal (www.dubrovnik-area.com). Dubrovnik Apartment Source quotes as the best mediator in private tourist accommodation sales and their data are realistic and true. Their web site offers all required data on the prices, location of the accommodation unit, interior and exterior decoration as well as the percentage of capacity exploitation. From Croatian Travel Agency and Dubrovnik Area Online pages the data on accommodation units in the area of Gruž were collected since Dubrovnik Apartment Source does not offer any data on Gruž.

The research period was limited to two summer months during which the largest number of arrivals and overnights in private tourist accommodation is realised, in order to avoid the problem of seasonality.

Private accommodation capacity utilization rate, as a dependable variable represents a relationship between a number of days of accommodation unit's occupancy rate and a total of days in July and August. The limitations in gathering statistical data determined the presentation of this dependable variable. After all on previously mentioned web pages the access to the data needed to look at this particular issues is only possible by tracking a number of days on which these private accommodation units were occupied.

Since the log-linear form is use in this study to correct heterokedasticity, LNCUR is the natural logarithm of the CUR in July and August. In line with the theoretical guidelines for selecting independent variables in hedonic price theory (Andersson, 2000) the variable selection was based on the previous studies. Table 1 presents the final list of the explanatory variables considered in this model and their definition. Variable star rating category was excluded from the model since in Croatia assigned category is not reflected by interior design of a private accommodation unit nor price so it is often the case that a three star unit with low quality interior design is more expensive than that with four or five star rating with supreme design.

Table 1

Description of variables used in the hedonic regression

Variable	Description of variable
<i>Dependent variable</i>	
CAPACATY UTILISATION RATE	CUR per private ccommodation facility in July and August

LOG CAPACITY UTILISATION RATE	CUR logged
<i>Explanatory variable</i>	
LOCATION	Accommodation facility is located more than 500 m from Old Town
PARK	Availability of free parking place
BEACHDIST	Accommodation facility is located more than 500 m from beach
SEAVIEW	Sea view from the accommodation facility
GARD/TERR/BALC	There is a garden, terrace or balcony in the accommodation facility
AIRCON/HEAT	There is an air-conditioning and heating in the accommodation facility
SATTV	There is a satellite television in the accommodation facility
SAFE	There is a safe in the accommodation facility
DVD player	There is a DVD in the accommodation facility
SWIMPOOL	There is a swimming pool in the accommodation facility
Internet	There is Internet connection included in the price
DISHW	There is a dish washer in the accommodation facility
WASHM	There is a washing machine in the accommodation facility

Source: Author

Table 2

Hedonic CUR function for private accommodation in Dubrovnik

	Coefficients	Std. Error	t-value
LOCATION	-.042	.025	-1.660*
PARK	-.027	.081	-.340
BEACHDIST	.000	.020	-.011
SEAVIEW	.205	.073	2.821**
GARD/TERR/BALC	.875	.091	9.648**
AIRCON/HEAT	.402	.275	1.461
SATTV	.111	.088	1.253
SAFE	.006	.123	.046

DVD player	-.091	.078	-1.166
SWIMPOOL	.286	.200	1.432
Internet	.047	.076	.619
DISHW	-.013	.076	-.171
WASHM	.025	.072	.348
F-value	23.783**		
Adj. R-Squared	0.739		
*p<0.1; **p<0.01			

Author

Explanatory power of the model is high, explaining 73.9% of the variations in CUR as measured by the adjusted R². The results indicate that only three attributes (location, sea view, and garden/terrace/balcony) influence the capacity utilization rate in private accommodation in the city of Dubrovnik. The CUR in accommodation units distant from the Old Town is 4.2% lower than in those situated in the vicinity of the Old Town. CUR in accommodation units with sea view is 20.5% higher than those not offering the same service. Offers including garden/terrace/balcony within the accommodation units increase the CUR by 87.5%. The conclusion may be reached that garden/terrace/balcony included in the rental price is by far the most influential factor in achieving the higher capacity utilization rate. Having that attributes satisfies the original hedonic motive for satisfaction and consequently the existence of these is of the most importance. All other variables involved in the analysis have no impact on the CUR in private tourist accommodation in the city of Dubrovnik.

Multicollinearity is often an issue in hedonic pricing model. Nonetheless, no definitive rules exist for determining whether multicollinearity is a serious problem in a particular hedonic application (Chen and Rothschild, 2010). In collinearity diagnostics eigenvalue, CI (Condition Index) and VIF (Variance Inflation Factor) were used. Eigenvalue near zero and CI higher than 15 (Rozga, 2010), as VIF value greater than 10 (Chen and Rothschild, 2010) are indicators of the presence of collinearity. In this analysis eigenvalue is not near zero, CI is lower than 15 and all VIF values of independent variables are less than 5 suggesting that in this study multicollinearity is not a serious problem

4. CONCLUSION

Private accommodation facilities are the least studied type of accommodation specially compared with hotels. With a view to pointing out to the importance of this type of tourist accommodation and taking into account the

consumers, in this case the tourists, paper employs a modified hedonic model in order to investigate the significance of selected private accommodation facilities attributes to the tourists.

In comparison with previous research of private accommodation unit attributes impact on price (Portolan, 2013) where private parking space played determined role on the price, this partially modified method of the previous research recognizes the attribute garden/terrace/balcony as the determining one in the actual capacity occupancy rate.

The starting point of this research is the author's belief that the prices in the private tourist accommodation are formed solely by owners' intuition whereas accommodation capacity utilization rate is the real reflection of the tourist demand preferences. The both researches support the author's theory. The first that using hedonic pricing method, it was the parking space which impacted the price whereas the current research into accommodation units capacity occupancy revealed that attributes of balcony/terrace/garden determine the choice of accommodation unit among tourists. The fact of the matter is that parking space availability has no impact on the choice of a particular accommodation unit. However, the experience of private accommodation units owners when it comes to parking issues or the lack of it led them believe that if an accommodation unit has a parking space has an added value and has to be more expensive.

The research method used in this paper could be called HCUR method (Hedonic Capacity Utilization Rate) or the method determining accommodation attributes of the most hedonic importance to tourists. The results of this research will greatly benefit the owners of accommodation units as it points out to which attributes carry primary importance for tourists and their presence ensures better capacity occupancy yield and it prolongs the tourists season and it justifies the price of the accommodation unit.

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E-mail: dpa.katarina@portdubrovnik.hr**PRICING POLICY AS AN INSTRUMENT OF CRUISE
DESTINATION MANAGEMENT**

JEL classification: L11, L83

Abstract

Destination management includes determination of development goals that are compatible with existing strategic planning documents, rules and limitations of sustainable development, defining mechanisms of action and management in accordance with the objectives and continuous adjusting of operational objectives to development strategy. The assessment of competitive position and analysis of competitive advantages are important for understanding the current situation as well as possibilities of adjusting the individual factors of competitiveness to market demands. When defining and designing different mechanisms of demand management it is necessary to first identify the factors of competitiveness, as well as the legality and cause - effect relationship between these phenomena. Handling of the ship, passenger and crew members is an important part of port supply. In order to perform such complex and highly demanding work at the user's satisfaction, it is necessary to appropriately organize that process and clear normative regulation of responsibilities, relationships, standards and costs, in order to know at all times the tasks and activities of individual holders, which is the scope of their work, which standards / criteria need to be fulfilled and what is the cost of services. Active participation of the organization / destination in relation to the market situation should be based on scientific - research activities as the basis in conducting business policy and development policy. Marketing is the business function that is future-oriented, using the results of research of all states and conditions at the market. Pricing policy is an essential part of the integrated destination

management, but is also directly conditioned by its existence and functioning.

Key words: cruise destination management, port authority, pricing policy, management performance

1. INTRODUCTION

Destination management involves determining development goals compatible with existing strategic planning documents as well laws and limitations of sustainable development, defining action and management mechanisms in accordance with its objectives and continuously adjusting of operational objectives to development strategy.

Assessment of competitive position and analysis of competitive advantage are important for understanding of current status and opportunities of adjusting certain factors of competitiveness to market demands. When defining and designing different mechanisms of demand management, first of all it is necessary to identify the factors of competitiveness, as well as the regulations and cause-effect relationships between phenomena. Acceptance and handling of vessels, passengers and crew members represent an important part of port supply. In order to deal with this complex and highly demanding activity in a user-friendly manner, it is necessary to appropriately organize this process and to clearly normatively regulate responsibilities, relationships, standards and prices, in order to know at any time which are the tasks and activities of individual holders, what is the scope of their work, which standards / criteria should be met and what is the price of services.

Active participation of the organization / destination according to the market situation should be based on scientific - research activity as the basis for conducting business policy and development policy. Marketing is the business function that is future-oriented, using the results of all situations and happenings in the market.

1.1. Port system as an integrated element of a cruise destination

Port problems are often considered separately in terms of individual economic and transport operators, forgetting the vital parts of the national economy and overall national and international transport and logistics chains with extremely high economic multiplier effects. The requirement for

achieving the goals of development Croatian port system should define the appropriate port policy, which will have a clearly defined and elaborated objectives that must be relevant, measurable and achievable within a certain timeframe. To increase the competitiveness of Croatian port system it is necessary to establish a consistent port policy, based on legal solutions with realistic and clearly defined goals, as well as the mode of financing of port system. It is necessary to improve port management system by establishing modern management and marketing activities in the market, to establish a coordinated approach by all stakeholders in the realization of services on routes with the aim of raising the quality of services provided and achieving competitive prices.¹

Destinations that offer greater value for money than the average of their competitors have the ability to increase market position. This improvement can be achieved by:

- Increasing market share,
- Increasing prices.

Depending on the chosen competitive strategy, the destination is in favor of one of these development opportunities. Given the limited capacity of the destination, Dubrovnik would have to choose a strategy that is focused on improving its market position by increasing prices. It is about developing as a cruise destination center or as a transit destination.² Maintaining a proper value-money relation means constantly improving the quality of all supply elements, which is one of the most important ways of positioning in the market compared to the competition.³ This is especially important because of the trend of continuous strengthening of competition and the inclusion of new destinations in the cruise market.

Plans of destination development in the cruise market inevitably include marketing plans - medium and long term. Marketing is a social and management process through which individuals and groups achieve what they need and want by creating and exchanging products with others. The task of destination marketing is to create an adequate marketing mix. It includes marketing aspects and strategies used by the management to gain competitive advantage. The basic concept of the marketing mix includes product, price, promotion and distribution.⁴ These elements are the variables of marketing that a company can control. Effective marketing mix must fulfill four conditions:

- to be adapted to the needs of the customer,
- to create a certain competitive advantage,
- that its elements are well combined,
- it is compatible with the available resources.

¹ Batur, T., Pravni status morskih luka i luèka politika u Republici Hrvatskoj. Zbornik radova Pravnog fakulteta u Splitu, god. 47, 3/2010., p. 677-692

Concepts of marketing management evolved from the production concept, product concept, sales to marketing concept, and the latest concept of social marketing. The concept of social marketing assumes that the organization should determine the wishes and needs of end customers and fulfill their needs in a way which is more efficient than the competition, in a manner that it takes into account the value for the user as well as for the overall social community.⁵ By applying this marketing concept, the function of tourist destination marketing management must include analysis, planning, implementation and control of programs designed to shape, develop and maintain the processes of exchange with the customers, in a way that they are directed towards the achievement of given goals and those objectives are to the benefit of the final consumer as well as for narrower and wider social community.

1.1.1. Economic impact of cruising in a destination

Cruising is a very complex social-economic system which includes a range of activities from various areas of the economy. If development is controlled, cruising can be a moving force for social and economic destination development. However, there are dangers of uncontrolled unlimited development when the negative impacts outweigh the positive ones.

Possible positive effects of cruising in a destination relate to port and destination promotion, increasing employment and incomes. Negative effects of cruising are related to environmental effects, endangering the destination image due to large uncontrolled growth that is not accompanied by increased quality of services, traffic jams and bad influence on other groups of tourists.

Revenues generated by cruising differ from country to country, depending on the management model at ports and destinations and entities that participate in the formation of various supply elements. Analysis of the economic impacts of port fees and charges must consider the function of individual holders of income within the port system and their characteristics. Revenues from port fees and charges relate mainly to the service elements of the destination supply, primarily for the process of acceptance of ships and passengers at the port. The port fees and charges paid for basic port activities that are part of the procedure of acceptance of ships in the port represent an obligatory expense for the shipping company. In addition to basic port

² Integrirano upravljanje kretanjem brodova i putnika na pomorskim krstarenjima u Dubrovniku, Dubrovnik, 2011, p. 68

³ Kotler, P., Bowen, T.J., Makens C., Marketing for Hospitality and Tourism, Issue 4, 2006, New Jersey, p. 50

⁴ Kešić, T., Ponašanje potrošača, Zagreb, 2006, p. 22.

⁵ Kotler, P., Bowen, T.J., Makens C., Marketing for Hospitality and Tourism, op. cit., p. 27 operations, other services are also available in the port area such as

- :- Ship supply,
- Pest control;
- Forwarding,
- Washing and ironing,
- Excursion programme and transfer,
- Taxi services and car rental services,
- Transport of passengers, crew and port authorities to/from the ship and other activities.

Fees from these activities are income of concessionaires in the port area.

Active approach to shaping the system of port fees and charges and pricing policy, first of all must include total relations among different categories and the ability to manage them. Port management or port authority, in this context, represents a governing body under whose jurisdiction these activities are carried out, through various legal control mechanisms:

- Regulating the amount of port charges by specifying the maximum allowed fees
- Creation of business conditions in the concession contract (concession fee, the minimum conditions for the activity, etc.) and Ordinance on Port Order,
- Supervising the establishment of quality standards for individual services.

The purpose of business process of cruise port management (port authority) is efficient use of the maritime domain in terms of public benefits. Such defined purpose of business is carried out and realised through business goals:

- Provide the basic conditions for safe acceptance of passengers, vessels and crew in the port in compliance with all applicable / required standards through efficient organization and coordination of port services operation, and a satisfactory level of basic port receptive facilities,
- Ensure the satisfaction of port end users (shipping companies, passengers) through the range and quality of services,
- Ensure the satisfaction of business subjects that operate in the port area (concessionaires, suppliers), through market competition protection and other business conditions,

- To ensure the maintenance and construction of port reception facilities (infrastructure and superstructure) in accordance with strategic local / regional economic and tourism / marketing planning documents.

In accordance with the concept of social marketing, organization / destination must direct their efforts towards the realization of benefits to the end consumer as well as the overall social community. This marketing concept is a modern adaptation to market conditions characterized by increasingly sophisticated requirements on the demand side, as well as increased competition. In the center of interest, therefore, is the ability to allocate their effects on improving the values that represent the public good. It is about increasing the overall value / quality of cruise destinations from the perspective of visitors from cruise ships, as well as other groups of tourists and local population. The quality of cruise destinations can be increased by the allocation of economic effects on improvement of the following elements:

- Destination Management,
- Investment in port infrastructure,
- Investment in basic port superstructure, as well as additional services (commercial and business centers etc.),
- Procedure of acceptance of ships, passengers and crew members,
- Standardization and control of service quality,
- Excursion programme supply,
- Other supply and service elements of a destination.

In order for the effects of cruising to be properly directed in the aim of increasing the total value of the destination, when determining certain fees and charges, it is necessary to take into consideration the criteria of allocation of certain types of income.

Port fees represent the port authority revenue, therefore the allocation of revenues generated from this source is legally defined. This revenue is directly invested in public maritime domain and thus in improving cruise destinations. Port service charges are private sector income. The amount and manner of funds allocation depends on contractual obligations defined in the concession agreement. Possible ways of direct allocation of these funds in

public maritime domain are: the construction of port superstructure, increase of service standards and concession fees (Table 1).

Table 1

Revenue categories from cruising in ports

Revenue holder	Revenue source	Revenue categorization	Revenue allocation
Port Authority	Port fee	Income from mandatory fees for receiving ships and passenger at the port	- Maritime domain (port)
Port services	Fees and charges for customs procedures, border control, sanitary control		- State budget → maritime domain
Company maintaining the waterways	Light fee		- Maintenance of waterways - Private sector income
Pilot service	Pilotage fee		- Private sector income
Concessionaire and for main port activities	The fee for mooring and unmooring, embarking and disembarking passengers, shipping agent		- Revenues of private sector - Concession fees → maritime domain (port) - The construction of the port superstructure - Achieving and maintaining quality of service and the relationship between price and quality (quality of destinations)
Concessionaire and for other port activities	The fee for garbage disposal, supply ships, excursion programme	Income from fees for additional services	- Private sector revenues - Concession fees → maritime domain (port) - The construction of the port superstructure - Achieving and maintaining quality of service and the relationship between price and quality (quality destinations)

Source: Processed for the needs of this research

2. DESIGN OF PORT FEES AND CHARGES PRICING POLICY

Pricing policy includes managing entire cause-effect relationships between individual elements of the port system. In particular this applies to the relationship between certain types of economic impacts of cruising.

The prerequisite for managing pricing policies is the possibility of a unified marketing approach, control and the adoption of common guidelines on pricing models and the amount of certain fees and charges. It points out the importance of destination management, as well as national level port system management. The other assumption for management of entire pricing system is to understand theoretical concepts and knowledge of cruise market (competitive environment, price elasticity of demand). It is also necessary to keep in mind the development policy of the destination and the parameters of sustainable development. In addition to those well-known elements the pricing policy can be used as a mechanism to direct the development of destinations.

When determining the amount of port fees and charges it is necessary to operate while keeping in mind the following objectives:

- To achieve the maximum possible income, provided that the tariff policy does not adversely affect the movement of cruise ships and passengers in a destination,
- Shaping pricing policy as a mechanism of demand management policies in the context of destination policy.

From the analysis of the relationship of port fees and charges with ports / destinations in the competitive environment, it is clear that cruise ports in Dubrovnik have space to increase port dues and fees while maintaining a satisfactory level of competitiveness. This would mean increasing the economic impacts of cruising in a destination, however, depending on the chosen competitive strategy, it is necessary to decide in which way these effects should be directed and consequently to which holders of income they should be distributed.

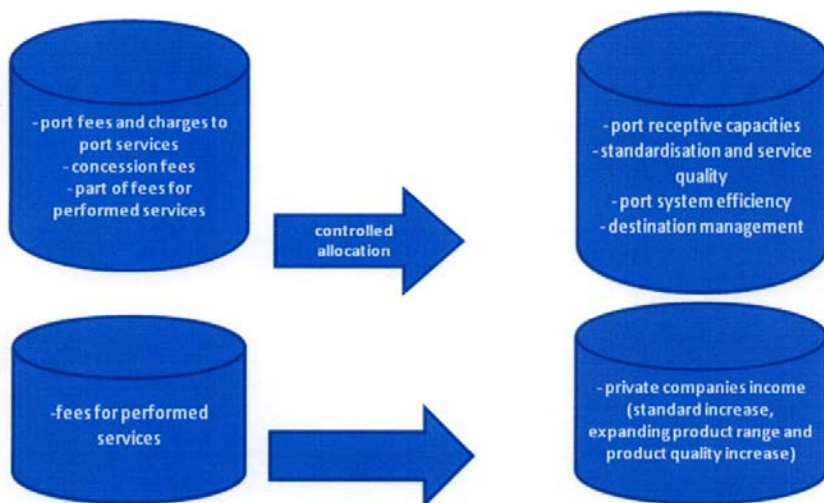
The increase in port fees and charges can be achieved by:

- Increasing the existing fees and charges and
- The introduction of new fees and charges.

If increasing existing fees and charges it must be decided, given the allocation of revenues that are generated on their bases (Figure 1), which are the categories in which action is needed. Following the principles of allocation of certain categories of effects arising from the formal definition of the status of the revenue holders, the reasons for the increase of port fees could be increased investment in maintenance and construction of port reception facilities, primarily the infrastructure.

On the other hand, the reasons for the fee increase may be related to the contractual obligations of the concessionaire for construction of port superstructure or increased concession fees. By increasing the fees under such contractual obligations, the launching effects of cruising in port reception facilities is also achieved. Furthermore, by the increase of concession fees port authority achieves the increase of its own revenues without increasing cruise port fees. The conclusion is that when considering port fees, we must take into account the amount of concession fees and fees for services as the elements that are part of the same system. The increase in port fees for services can be elaborated by increased requirements in terms of service quality that the port authority determines through concession agreements.

Figure 1. Revenue sources and their allocation in the scope of port system



Source: Processed for the needs of this research

Many European ports have introduced environmental taxes and security fees. Namely, environmental and safety standards in recent years are given growing importance and they are also one of the criteria of competitiveness of the port in the market. The issue of safety of navigation is under the jurisdiction of the Harbour Master's Office, while the issue of security of the port area is under the jurisdiction of the Port Authority, i.e. the security department of the institution. This department is also responsible for environmental issues. Safety and environmental issues of the port are largely related to port reception facilities with an extent of use in direct contact with the ship capacity, therefore the calculation of the fee may be linked to capacity (GT).

3.1. Port pricing policy

Tariffs in the narrow sense represent a systematic review of certain dues, while in a broader sense they include all the regulations and conditions under which prices are determined. When charging the prices of transportation services, including the cost of port services, it is necessary to highlight the market "maximum principle", according to which the user tends to minimize the costs and the service provider tends to maximize the profit. To optimally valorize the "maximum principle" for tariff policy it is important to design

measures to stimulate the use of services and certain principles such as the principle of competitiveness, the principle of economy and the principle of the value of goods / services. Appropriate measures of tariff policy can stimulate proportionally greater, smaller or equal use of services, which is achieved by applying one of the tariff types:

- Proportional tariff (same price, regardless of the volume of services)
- Differential tariffs (basic tariff rate is changing along with the volume of traffic)
- Preferential tariffs which are applied in certain conditions when discounts are granted.⁶

In relation to the category of mandatory expenditure of cruise ships several problem areas are covered.

1. Proper distribution of a large amount of annual income to individual holders of income

It is necessary to take into account that the surplus revenue in the public sector is reinvested in public domain. Income of the public sector, i.e. income of the port authority are concession fees and quayage port fees.

2. Pricing method

Most of the items is the concessionaire's income. Concession fee is one of the costs that are calculated into the price, therefore, when determining the concession fee, it is necessary to establish a balance between the maximum allowed fee for the service that the concessionaire may charge to the consumer and the amount of the concession fee paid by the concessionaire for the concession. The amounts of the concession fee and quayage port fee are determined by the port authority.⁷

The basis for determining the amount of fees is the need for funds according to the plan of maintenance and investment in port reception facilities, as well as the prices in competitive ports. By the concession plan, traffic plan and financial plan of the port authority, the shares of individual income sources are determined and, in accordance with the plans, the amounts of concession fees and quayage port fees are defined.

For certain port authorities and destinations, it is necessary to start determination of the amount of the price through the managing planning function, which includes the strategic long-term development plans, as well as

⁶ Mitrović, F., Kesić, B., Jugović, A., Menadžment u brodarstvu i lukama, Zagreb, 2010, p. 176.

⁷ Maritime Domain and Seaports Act, op.cit.

medium-term and operational plans. According to the content, types of plans on the basis of which we can determine the need for financial resources and the amount of fees and charges include: procurement plan, concession plan, traffic plan, financial plan, marketing plan and work plan. It is necessary to establish a rational and efficient planning process and to ensure a system of collecting information and records of business events as input data.

3.1.1. Price of ship accommodation in the port as a mechanism of regulating demand

This problem area has much in common with the policies of the destination. Specifically, under the condition of creating a joint management-level acceptance of ships in the port and expenses arising from the functioning of this process, the tariff could be used as a mechanism of demand regulation and management. Preferential rates can be used to influence:

- Seasonality,
- Distribution of calls on weekdays
- Impact of the length of stay at the destination.

Such measures of pricing policy must be consistent with the development policy of a cruise destination. Destination development strategy and a unique governing body for destination development management are conditions for the proper formation and implementation of the measures described.

Active approach to pricing policy management, keeping in mind all of the above elements and the manner in which their interaction can result in effects on several management levels:

- Increase in fees and charges or introduction of new ones, resulting in higher revenues for individual business subjects,
- Redistribution of economic effects among some subjects in order to achieve the desired results in terms of resource allocation within the port system, which works to improve the quality of service elements of the total destination supply,
- The use of pricing policy for action on certain characteristics of the demand and as a mechanism for managing the development of a cruise destination and the allocation of resources to increase the overall quality and competitiveness of the cruise destination.

3.2. Port fees and charges as a factor of destination competitiveness

Competitiveness of a destination is the ability to create a unique experience.⁸ Competing destinations are those in the tourist market which offer similar tourist product, taking into account all relevant factors of competitiveness.

All participants in the formation of integrated destination product at the cruise market (port authorities, shipping companies, travel agents, service providers, local communities) must adapt, cooperate and act as partners in joint work to settle the growing needs and demands of cruise passengers. Lacks of only one partner can act negatively on the overall experience of the destination, whereas a successful business can become a driving force for economic and social development of a specific tourist destination and all entities involved in the production of services.⁹

Action of the port, i.e. port system is determined by a number of factors with regard to the complex function of the port in traffic and economic sense.¹⁰ The system of port fees and charges is part of the port system. Amount of port fees and charges is one of the factors of competitiveness of the port, and thus the destination.

In order to determine the objective meaning of prices of port call, the prices of call per passenger is compared to the price of ship arrangements (Table 1). The arrangement price includes¹¹:

- Full board in a deluxe cabin category / 5-7 meals a day,
- The use of ship space and equipment (pool, beach, fitness centers, gym, library, night clubs)
- Participation in all daily activities,
- Live music, entertainment, events in the ship's theater,
- Loading and unloading of personal baggage.

The share of expenditure on charges and fees in the total package price is quite high, ranging between 11 and 16 percent (Table 2).

There are two main aspects of the meaning of the level of fees and charges for the shipping company:

- The level of lump sum which a shipping company pays for "port taxes" and which is treated as a mandatory addition to the price and its amount is based on the planned prices according to tariffs in the ports included in the itinerary,
- The question of the difference between actual costs and lump sums charged, which the shipping company tries to maximize, given that this difference represents an extra income of the company.

⁸ Institut za turizam, www.iztg.hr/UserFiles/Pdf/Pedeseta-obljetnica-IT/02-Konkurentnost-turisticke-destinacije-Ivancic.pdf, op.cit.

⁹ Kesić, B., Jugović, A., Pomorski promet Republike Hrvatske teretni i putnički razvoj, Rijeka, 2008., str. 41.

¹⁰ Mitrović, F., Kesić, B., Jugović, A., Menadžment u brodarstvu i lukama, op. cit., str. 197.

¹¹ www.generalturist.com

Table 2.

Port charges and fees in relation to the current price of shipping arrangements

Number of ports of call	Cruising area	Vessel name	Arrangement price (EUR)	Surcharge for port fees (EUR)	Total arrangement price (4+5)	Share of port fees in arrangement price (%)	Average fee per pax (EUR)
1	2	3	4	5	6	7	8
7	Eastern Mediterranean	Costa Serena	715	124	839	14,78	17,71
9	Western Mediterranean	Louis Majesty	820	120	940	12,77	13,33
7	Eastern Mediterranean	Costa Mediterranea	640	125	765	16,34	17,86
7	Eastern Mediterranean	MSC Fantasia	618	116	734	15,80	16,57
8	Mediterranean	MSC Poesia	980	130	1110	11,71	16,25

Source: Processed according to data on websites: www.magellan.hr/krstarenje, www.krstarenjamediteranom.com, www.msckrstarenja.com

4. IMPROVEMENT OF PORT CHARGES AND FEES SYSTEM AS A BASIS OF TARIFF POLICY MANAGEMENT

Character of port fees and charges results from the basic features of management model and the role of various entities within the port system and their relationships. Port authorities have an economic and social dimension. They are very sensitive to economic trends, especially the process of globalization. These dynamic changes have formed a very uncertain and complex environment for the port, which has led to the change of management concept. The traditional function of the port authority has undergone a transformation. The function of the operator turned into the regulatory function and the function of managing the port territory. It is believed that the function of the management of port territory is the most important function of modern port authorities and that the present trend of development of management models is a "landlord" principle, which in financial terms means the responsibility of the port authority for port infrastructure and the responsibility of the private sector for port superstructure.¹² Function of port territory management consists of the management, maintenance and development of the port area, ensurance of infrastructure and port facilities, as well as the development and implementation of policies and development strategies regarding the exploitation of the maritime domain. With the pricing policies of

¹² Vanhoeven P., European Port Governance, The ESPO Fact – finding Report, revised and enlarged in 2010, European Sea Ports Organisation, 2010

port fees and charges the role of port authorities relating to the management of the port area is closely connected, as well as the regulatory role. These functions are accomplished through concession system and through adoption of tariff ordinances of port fees and charges.

4.1. Disadvantages of port charges and fees system

Pricing policy is one of the most important mechanisms for the implementation of strategic plans of tourism development. In the formation of supply at Croatian cruise market problems arise regarding the price of acceptance of ships and passengers in the port:

- The structure and the basis of calculation differs greatly from port to port,
- The amount of individual elements of the system is changing without the design and implementation of pricing policy in relation to the fees and charges as a whole,
- Different models of calculation are applied to individual elements of port fees and charges,
- Deficiencies in the model of calculation result in illogical price distribution,
- Tariff regulations are often vague and conceptual definition of certain categories is not precise enough, which prevents the traceability and consistency in the application.

Since the management basis in terms of competence is not clearly defined and established, the question of competitiveness of the port in terms of the amount of port fees and charges is very difficult to manage. Poorly defined responsibilities of individual elements of port fees and charges and the lack of a unique level approach to this issue prevents a systematic approach. The procedure for acceptance of ships involves numerous actors: representatives of the public sector and service providers. For shipping companies, as service users of acceptance of ships, passengers and crew in the port, port fees and charges are a unique expenditure. Protection of the market and price regulation is implemented by different entities that are not mutually coordinated and harmonized. Keeping pricing policy in relation to the demand does fulfill desired results because the final price depends on the decisions of all the

others. As the acceptance of ships and treatment of passengers in the port are a significant portion of the total destination supply, it is necessary to organize the regulatory and normative platform, all with the aim of setting up a unique package of services, controlled cost and quality.

In order to implement the tariff policy of port fees and charges it is necessary to:

- Uniform tariff models for those elements of call expenditure, for which tariffs are set by each individual port authority
- Set up a logical basis and calculation model for the elements of call expenditure, whose rules are unique at all ports.

Based on the set of general rules for the establishment of tariff ordinances of individual port authorities it is necessary to uniform tariff regulations in order to meet the needs of predictability and ease of application, which is important for companies as service users and the service providers. These general rules should be elaborated at the national level and defined through appropriate legal documents, which is in line with the expressed need for standardization of port procedures, especially procedures related to the reception of the ships, passengers and crew in the port. General rules should include provisions on the types of fees and charges including unambiguous rules on applicability to particular situations.

4.2. Integrated port information system as support to pricing policy management

The procedure for acceptance of ships involves numerous actors: representatives of public sector and service providers. Since the acceptance of ships and treatment of passengers in the port are a significant portion of the total destination supply, it is necessary to achieve an acceptable level of organization and coordination among holders of certain activities, including the regulatory and normative platform, all of which is in the aim of setting up a unique package of services and controlling cost and quality.

Functionally there is quite a high level of coordination of individual activities in ship acceptance, which are in the largest part the responsibility of the port authority, since it is one of the core functions of the institution.

In terms of documentation there is very poor coordination and functional arrangement. In fact, although there are very good technical

prerequisites for setting up a single database, in practice, each entity has its own way of recording events and publishing documents, also the data sources are inconsistent and insufficiently defined.

One of the most important elements in the context of the need for improving the port system is to create a system of control and processing of traffic data in the ports. It is a complex project that aims to establish standardization and uniformity of reporting, which should ultimately result in a single system for monitoring and processing of traffic data and charging port fees in all Croatian ports.

Basically these efforts are striving to establish full control over port system, i.e. improving the legal system of a given port and its implementation in practice.

The purpose of establishing systematic monitoring of traffic is the following:

- Integration of functions of port services through a unified documentation system,
- Complete control of all aspects of ships and passengers at each port of call,
- Unique system of monitoring concessionaires' work
- Unified port fees system,
- Contribution to the establishment of safety standards in the port,
- Contribution to the establishment of quality standards in the port,
- Providing accurate traffic data from a unique source for authorities and agencies that operate in the port area,
- Creation of database that can produce high-quality statistical reports needed for business plans and port development plans as well as for the needs of different business subjects.

4.3. Port fees and charges and determination of TQM system

Lately the role of the port authority is distinguished as a holder of standardization and systematic care for the quality control of port services. This role is associated with the management of the port and destination and the quality of the overall destination product at the cruise market. The inclusion of all members of the organization puts us closer to the total quality management (Total Quality Management, TQM). TQM is a management system focused on continuous improvement of products and / or services in order to develop high levels of customer satisfaction and loyalty to their organization. Total quality management involves the application of quality management principles to all aspects of the organization, including customers and suppliers and their integration with key business processes.

The objectives of TQM are increased customer satisfaction, productivity and profitability. TQM is a joint collaboration of everyone in the organization with the associated business processes in order to produce high-quality products and services that meet and, if possible, exceed customer needs and expectations. Evolution of TQM shows that the implementation of ISO 9000 standards are bases of quality management, which can be followed by the introduction of one of the world's models of Business excellence.

Advantages of introducing a system of TQM are manifold:

- Increasing the quality of products / services;
- Increasing customer satisfaction and retaining their loyalty;
- Strengthen the competitiveness and market power of the organization;
- Reduced operating costs;
- Increased productivity and profitability;
- Increases the satisfaction of all employees;
- Increasing the quality of management;
- Increases the reputation and value of the organization.

The introduction of TQM in management of port system is primarily the task of the port authority. This effort will in the future especially come to the fore as part of the realization of the project of port development and modernization project, which will require a redefinition of the port system in the port of Dubrovnik (Gruž).

System of measure series ISO 9000:2000 defines quality as the degree up to which a set of existing properties meets the requirements. Product quality is an absolute prerequisite for its social recognition and transformation into a commodity and thus, at the same time, the basic requirement for life and work of any manufacturer and its appearance in the market.¹³

ISO 9001:2008 standard for business quality implies a dynamic and continuous process of adjustment of business requirements. As a start of introducing TQM system, Dubrovnik Port Authority carried out the standardization of business process and aligning it with the requirements of ISO 9001:2009. Standards are written (documented) agreements containing technical specifications or other precisely defined criteria to be constantly used as rules, guidelines or definitions of characteristics and to ensure that materials, products, processes and services are matching their purpose.¹⁴

The objectives of the implementation of the ISO system in the port system management process:

- describe and document operating procedures in such a way that they are applicable, sustainable, comprehensive and transparent,
- specify the duties and responsibilities for specific tasks and procedures - transparent lines of decision-making and
- specify the duties, responsibilities, organizational structure for business process management efficiency and minimization of repetition / overlapping of actions
- standardize the handling of documentation,
- establish mechanisms for controlling and monitoring the implementation of set standards and feedback in terms of the achieved level of quality and
- align goals with business objectives.

Integrated Quality Management System supports all processes in the function of identifying problems and finding optimal solutions for efficient management of the port system. The system is set up in such a way that all participants in the process understand the functions that must be implemented and mechanisms of action that are applied to achieve the satisfaction of all stakeholders and users of the port area.

The implementation of TQM in business of port authorities and port management, will enable access to the management of fees and charges as an integral part of the complex process of port management. Such a system requires the management of all aspects of the business:

- Defining the purpose, vision and mission of the organization's operations,
- Setting measurable and objective goals of the business,
- The design and documentation of business procedures,
- Managing the financial aspects of the business,
- Organization of a unified documentation system,
- Establishment of an efficient reporting system.

Process approach to business in ports for the reception of cruise ships and passengers will provide guidance at all levels of the organization towards achieving the set goals. The well-organized process of port system management will make it easier to determine the fair amount of fees and

¹³ Injac, N., Mala enciklopedija kvalitete - Upoznajmo normu ISO 9000, II. Prerađeno izdanje, Oskar, Zagreb, 2002, p. 72.

¹⁴ Avelini Holjevac, I., Upravljanje kvalitetom u turizmu i hotelskoj industriji, FTHM, Opatija, 2002, p. 4.

charges in accordance with the effects to be achieved. This business function will become an integrated part of the business process of the port authority and thus port system management and cruise destination management. The introduction of a quality system, especially the environmental management system, will mean increasing the quality of port services and it will affect the competitiveness of ports and destinations. This will be an argument for increasing fees or for introduction of new fees for the protection and security.

4.3. Improving the system through cooperation and partnerships

Business processes in ports open to international traffic are largely incompatible with each other, which makes the course of cooperation with the business environment more difficult, as well as consideration of the situation in this part of the economic activities at national and regional levels. It is necessary, therefore, to establish an organized cooperation at a higher level among all entities that can contribute to the formation and development of the port system. This idea would be embodied in the establishment of an advisory body at national and regional level, which would consist of representatives from universities, ministries or other bodies of local and state governments and port authorities.

Objectives and contributions of the project:

- Standardization of business process in ports, especially the procedures of accepting vessels and passengers / cargo in documentational and operational terms,
- An established and organized way of gathering and deployment of expert teams in addressing issues related to the port system, such as tariff models, investment models and concession models,
- Standardization of business reports, particularly financial reports and traffic statistics,
- Standardization of the content and flow of documents, as well as a unique information system at the level of individual ports,
- Database of charges and fees in cruise ports of the region, uniform price models and adoption of a common pricing policy,
- Developing a port – city interface,
- Joint marketing efforts with the aim of presenting unique national markets,
- Organizing thematic conferences and workshops for information, knowledge and experience exchange

5. CHOICE OF COMPETITIVE STRATEGY OF CRUISE DESTINATION DEVELOPMENT

When creating a competitive advantage destinations need to consider the legality of sustainable development. Michael Porter has proposed three competing strategies that can be applied in order to achieve sustainable competitive advantage.¹⁵

These are ways in which the company can successfully confront the competitive forces in the market:

- Leadership in low costs (low cost strategy)
- Product differentiation (differentiation strategy)
- The strategy of focusing (or focused segmentation strategy).

Leadership in low-cost strategy is a strategy by which the company achieves competitive advantage by lowering costs at the lower level than competition costs. The first approach in the framework of this strategy is the one according to which the company makes low cost. The result achieved is low profit per product unit but large total profit due to its high market share.¹⁶ By applying this strategy a destination of low operating costs is developed, it has the characteristics of a mass tourism destination. The emphasis is on cost control, the use of economies of scale and maximum productivity of employees. The supply of these destinations, as well as physical capabilities must be adapted to accommodate a large number of tourists.¹⁷

Product differentiation is a strategy by which the company achieves competitive advantage by increasing the value of the goods or services in relation to competitors. Competitive advantage of this strategy is based on elements of the image and reputation and resources of the company, or any other aspect of the company that can be emphasized in relation to competitors. Differentiation strategy provides protection from competitors for customer loyalty to brands and therefore less sensitivity to the price.¹⁸

Implementation of the strategy of differentiation develops high value destinations for passengers. This implies great marketing skills, creativity, built image and a highly skilled workforce, as well as large investments in port infrastructure and superstructure. This type of destination can be developed as

¹⁵ Renko, N., *Strategije marketinga*, Naklada Ljevak, Zagreb, 2005, p. 189

a transit port / destination or a cruise center.¹⁹

The strategy of focusing is a combination of two previous strategies, and implementation of the strategy of leadership in low-cost or product differentiation strategy in relation to a specific market segment. By applying this strategy, a destination is being developed as an exclusive / unique destination. Supply focuses on one or more selected narrow segments seeking uniqueness. These destinations are hard to reach in terms of traffic, so these are mostly transit destinations.²⁰

Company / destination participating in each of the strategies and failing to create any of them is stuck in the middle, which is a very bad strategic position because it does not have any competitive advantage.²¹

Given possible competitive development strategies, there are two recommended ways for the development of Dubrovnik as a port / destination:

- Transit port / destination or
- Cruise center.

In the case of selecting transit port / destination option, it is necessary to choose a strategy of focusing or differentiation strategy. Implementation of the strategy of differentiation means better evaluation of tourist resources, attracting new segments of passengers, but also destination management and better coordination of participants in cruise tourism development. The strategy of focusing means focusing on one or more narrow market segments, a good knowledge of the needs of target segments and development of exclusive / unique transit destination.

Destination development as a cruise center using differentiation strategy dictates the need for development of port infrastructure and superstructure, as well as a clear vision of development, closer cooperation of direct and indirect business holders, better organization of cruise passengers stay and redistribution of ship calls throughout the year.²²

¹⁶ Ibidem, p. 190

¹⁷ Integrirano upravljanje kretanjem brodova i putnika na pomorskim krstarenjima u Dubrovniku, op. cit., p. 66

¹⁸ Renko, N., Strategije marketinga, op. cit., p. 192

¹⁹ Integrirano upravljanje kretanjem brodova i putnika na pomorskim krstarenjima u Dubrovniku, op. cit., p. 66

²⁰ Ibidem, p. 66

²¹ Ibidem, p. 195

²² Ibidem, p. 68

6. CONCLUSION

Cruise ports are intrinsically embedded in a wider local and regional tourist and economic context, as their activities at operational level, as well as strategic development plans, must be in accordance with the plans of a higher order. Impact on factors of competitiveness requires a systematic approach to managing the functions of planning, organizing and controlling performance against set criteria arising from sustainable destination competitive strategy.

Active approach to destination management requires adequate management body at destination level that would enable an integrated and coordinated guidance of destination development including:

- Determination of development objectives, compatible with existing strategic planning documents and the laws and limitations of sustainability (destination image, the structure of demand, setting quantitative restrictions)
- Understanding of theoretical assumptions and legalities through continuous and systematic monitoring of trends, scientific research and collection of similar experiences and cooperation with other destinations with the involvement of competent and professional people
- Defining the mechanisms of action and management
- Continuous determination and adjustment of operational objectives and courses of action

Pricing policy is an essential part of the integrated destination management, but it is directly influenced by its existence and functioning.

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**EFFECTS OF CROATIAN TOURISM DURING
THE YEAR 2012**

JEL classification: L83

Abstract

*While the world still operates in a large-scale economic crisis, people on the other hand operate in a somehow stable yet small economic rise. **The main hypothesis:** Economic rise is not only based on tourism achievements, but rather on dynamic production activity by application of new technologies and diligence. All of this is strongly reflected on tourism development and travel trends in the world. **PH1:** A simple economic analysis can prove that tourism in Croatia should be closely linked to other economic sectors. One must sadly admit the bitter truth as most tourist facilities in Croatia are owned by foreign capital, as well as all other activities related to tourism. Supply of tourist facilities and other activities is also owned and under the supervision of foreign capital. **PH2:** Tourism in Croatia, especially along the Adriatic coastline, should last at least for seven months a year. At the same time, tourism revenues for 2012 would be at least EUR fifteen billion. The current economic crisis severely struck Europe, and by this also European as well as tourist development trends in general. **PH3:** The fact that a great number of potential tourists chose staying in their own country during their vacation is hard to cope with for renowned tourism destinations, especially in the Mediterranean. **Keywords:** tourism, development, performance, achievements*

1. INTRODUCTION

According to all the economic indicators in the world, although the large-scale crisis is still present, it is safe to conclude, although there is great structural crisis of neo-liberal capital economy in the world, that the

majority of human population in all capitalist countries still participates in small, but stable economic growth. The growth is not based solely on achievements in tourism, but primarily on dynamic manufacturing activities by implementation of new technologies and diligence. Although new economically developed countries in the world such as China, India, Russia, Brazil, Canada, Australia, and Saudi Arabia are able to strongly develop and use their tourist potentials, because they possess great tourist resources, their years-long, strong economic development was founded on national industry capacities to which they tied their tourism industry as a supplementary industry which brings foreign currency and extra profit.

On the other hand, in contrast to the above-mentioned efficient economies, renowned tourist countries, such as Greece and Italy, which have based their activities exclusively on tourism and its effects, complain of crisis. These countries are currently in severe economic depression. Their economic and financial decline resembles and is characterised by the identical path through years-long crisis with fairly identical results. Namely, this crisis has been devastating for the small, pro-European, open, over-indebted, and wasteful Croatia with its destroyed industry and preoccupation with entertainment of any kind. All Croatian governments have been convincing people for years that industry as such is unprofitable, that it pollutes the environment, that it is too costly and that there is no market, and the workers are supposed to be lazy and economically unprofitable. On the other hand, tourism is presented and advocated as the saviour of the national economy, and Croatia is presented as a tourism super-power. The worst is the claim which the highest governmental bodies keep sending out, that tourism should, and is able to, accumulate income which will cover all the gaps in the economy and constantly created minuses in foreign trade by tourist activities in a few months, from July to September; that it will fill the State Budget and close the foreign trade gap.

Naturally, like any other occurrences in this country, this is also the result of inability and incompetence, and corruption in the highest positions of authority which is tightly connected with the criminal milieu. Such views have been present in the Croatian media and politics for around twenty years, although official statistics constantly indicate completely different trends and data from year to year. At the same time, while the highest positions of authority discuss economic progress of the country, Croatian economy sinks into an even deeper recession and crisis. According to the latest data by the Croatian National Bank, during 2012, the GDP will be reduced by at least 1,6 per cent, along with employment reduction. In such economic circumstances, not even successful tourism,

despite its somewhat more favourable results, can fulfil state and government's expectations. On the other hand, benefits from tourism will be achieved by banks, supermarket chains and different retailers which are, for a longer period of time, owned by foreigners. The rare lucky national and private participants or stockholders, usually over-indebted, stockholders might achieve fewer benefits.

Croatian tourism developed over time and acted mainly in three directions, all of which were harmful to Croatian national interests. Those were the following:

- total economic, financial, and ecological inflow and effects were realistically lower than their outflow in each of the analysed economic factors, and they did not contribute to development of the Croatian economy,

- strong tourism development in Croatia has been devastated for a long period of time, and urban and ecological harmony in the littoral and island settlements and in their old urban cores along the Adriatic coastline, which had been created for hundreds of years, are destroyed. At the same time, the government and government bodies are under strong pressure by foreign investors to take over unspoiled cultural or historical heritage and green areas for building and other forms of commercialisation.

Tourism development is especially endangered by strengthening of mafia activities, which is proven in Italy, especially its southern part. Anyone who analyses this topic from a neutral point of view and who is not under pressure of different groups and lobbies, will reach the conclusion that the power of criminal groups is the strongest in tourism, like in no other economic activity. In tourism, they also infiltrate black market, tourism-related show business, and successfully avoid settling fiscal obligations to the State. Of course, cheating of the State is not possible without a strong connection between criminal circles and state bodies, because in all the solved criminal cases, small-time criminals are those who are most frequently discovered. When attempts had been made to undertake further investigations, all the way to the top, the investigations were suddenly terminated or covered-up under strange circumstances.

2. THE REAL STATE OF CROATIAN TOURISM

A simple economic analysis can prove that Croatian tourism, although experts call it „Croatian“ is, in fact, not only Croatian, although it should be tightly related with other economic activities, as it is their

economic constituent. Unfortunately, the bitter truth is that most tourist facilities in Croatia are owned by foreign capital, and all other tourism-related activities which should supply tourist facilities as well as other tourist activities are owned by and under supervision of foreign capital. All the Croatian governments point out the fact that the most important task of tourism is to save national finance, and many families who are in enormous debt should, through tourism, pay their debts to banks owned by foreigners. All levels of government particularly pointed out the possibility of large employment of the population, which did not happen, because the structure of tourism cannot accept great quantities of labour force for a longer period of time. On the other hand, tourists spend much less during crisis; therefore, financial results are much smaller, and a large number of tourists in one place significantly devastates the natural environment and inflicts immeasurable damage to any tourist destination. A great danger to Croatian tourism is concreting of the coastline, which happens when building of tourist facilities in a small place becomes too excessive. (Croatian National Bank, 2012, 4) .

All the natural and social circumstances are currently in favour of modern Croatian tourism and its development, in comparison with the neighbouring competitive countries in the Mediterranean in which there are high security risks, but also questionable public safety along with great debt crisis and unfavourable climate. In Croatia, the climate is pleasant and tourism is flourishing, but more abundant tourism revenues are not realised. Although the Croatian social component is stable social peace, which is also its basic comparative advantage, in comparison with the hot summer and the damage it inflicts on natural resources, national tourism will not be able to fulfil the expectations this season, nor realise the extra profit which will cover years-long mistakes and damage. This will particularly reflect on the State Budget and citizens' accounts. All this is a reflection of an extremely negative situation in the country with particularly negative effects, which, according to the nature of things, increasingly turns into trouble and large-scale uncertainty for national economy and local communities.

3. THE EXPECTED INCOME AND UNREALISED AMBITIONS

If Croatian tourism were, in fact, predominantly Croatian, and Croatia indeed a tourist power, in that case, the tourist season, especially along the Adriatic Coast, would last at least seven months a year. At the

same time, tourism revenues in 2012 would amount to at least EUR 15 billion. Of this amount, at least EUR 10 billion would be realised by national companies, regardless of whether they are tourist, financial, or economic; they have to be related to tourism. Besides, the situation in the State Budget and in local budgets would greatly improve. On the other hand, stimulated by its success, Croatian tourism would increase the number of employees for as much as a hundred thousand in the scope of its activities. Tourism revenues would fill about forty per cent of the State Budget, but also about a third of local coastal budgets. This tourism effect would also provide a strong support for the government by which it could realistically balance government expenditures and revenues. The government still considers tourism a supporting activity for the growth of GDP, which is best proven by data according to which the number of employees in the sector of services which include trade, transport, catering, hotel industry, banks, etc. during the 2009 season was increased only by about thirty thousand of employees. In 2010, the number of employees in the same sector was reduced by fourteen thousand. The importance of tourism for Croatia is presented in Table 1.

Table 1. The Importance of Tourism for Croatia

Year	Tourism revenues in billions of euros	Income ratio and GDP
2005	6,0	16,8 %
2008	7,5	15,8 %
2010	6,5	14,2 %
2011	6,8	14,8 %
2012	7,0	15,5 %

Source: CNB, CBS, 2012.

In 2012, the actual employment situation was somewhat improved; there are about forty thousand employees. This number amounts only three per cent of all the Croatian employees.

The greatest benefit from Croatian tourism is realised through VAT, followed by accommodation services, in which most tourist facilities are nationally-owned, functioning in accordance with the legislation (Croatian Tourist Board, 2012, 4). Other benefits are realised through parking of vehicles and boats. Local citizens realise the greatest profit from renting tourist facilities and different services on the black market. A special source of income originates from different forms of entertainment and drug market. These arrangements are mostly criminal in nature and in relation to the mafia.

Modern world keeps developing despite of the crisis which governs the world and destroys neo-liberalist Western capitalism. The majority of the world population continues to function in the stable framework of social development and tourism, primarily under the strong influence of new technologies and production activities. This is related to the new world leaders, China and India, Russia, and others. They all have world-renowned attractions and developed tourism, but their principal economic orientation is national manufacturing activity. Their strong economic development is stimulated by development of a new industry and tourism is developed as a supplementary and accompanying branch of economy, and manufacturing serves to stimulate tourism development.

The leading tourism powers such as Greece, Italy, and Spain, which are currently facing a hard economic situation, are in contrast with the above-mentioned reasonable activities. They almost ruined their industry and production activities, and their economic difficulties very much resemble those in Croatia. A realistic question is posed: Can tourism save and further develop countries such as Croatia, because all the responsible entities, from the governments onwards, keep creating the impression that Croatia is a strong tourism power and that profit from tourism in a single trimester, from July to September, can pay off all the minuses created in the national economy, foreign trade, State Budget, as well as close the foreign trade gap. Unfortunately, these predictions have not been realised for almost fifty years, since the beginning of such ideas. Although all the official statistics indicate the opposite, this pernicious mindset is not changing. On the other hand, the Croatian economy keeps sinking deeper into depression every year. For example, the CNB predicted for 2012 the decline in GDP for about 1,6 per cent in relation to employment decline; therefore, tourism cannot fulfil the government's expectations and needs, despite the fact that it recorded another growth this year. However, on the other hand, it will bring enormous benefits to foreign bank owners, processors, and retailers in foreign supermarket chains. Less indebted national private entrepreneurs or stockholders will also achieve certain benefits (Croatian Family Accommodation Association, 2012, 12).

The extent of such tourism activities in the midst of general depression in Croatia in the first half of 2012 in relation to the year before is realised by an increase of 8,8 per cent of tourist arrivals and 13,7 per cent more tourist overnights. On the other hand, total financial income in service industries, such as accommodation, food services, travel agencies, and organisation of trips were only five per cent higher than in 2011. This means that tourism in Croatia in 2010 and 2011 did not manage to take

over a large quantity of guests from the competition in the Mediterranean, nor did it pull the country's economic system out of the four-year recession. Statistics indicate that, in the first half of 2012, the Croatian GDP declined for almost 9 per cent in comparison with the one realised in the period before the crisis, 2008. This indicates that during the full season, tourism effect was reduced by 7 per cent in comparison with the year before.

It is evident that this year's season will be one of the longer ones and that it will last for almost a hundred tourist days, while the number of employees will increase for about 40 thousand, and at the same time, the share of tourism in the GDP will be reduced from the record 20 per cent, which was achieved in 2004, to only about 15 per cent this year. A comforting factor is a prediction by tourism scientists expressed at the end of the record 2008, when record tourist revenues were realised in the amount of EUR 7,5 billion, which was three times higher than in 2008. Along with greater modernisation of hotels and extra services, and the necessary re-industrialisation, which would develop as a foundation of the tourist offer and national customers, Croatian tourism could make up to EUR 20 billion a year. „To make“ means to generate turnover in this amount, followed by a different income distribution according to ownership structure, import and export, domestic production, taxes, duties, salaries, etc.

On the macro-economic level, it is safe to say that the majority of the tourist offer which is rated above-average and profitable is realised in Istria, primarily on its west coast, from Rovinj's *Maistra* and the Blue Lagoon and Riviera of Poreč, to the *Istra Turist* of Umag or the *Arena Turist* from Pula. All this tourism capacity is controlled by foreign capital. Analysis of business activities of these successful tourist companies indicates that, in the 12 years of business activities, they did not manage to stimulate achievement of tourism results of greater significance. None of these tourist companies is listed among the top 20 successful export companies, and some were even on the list of losers. In Dubrovnik, which almost exclusively depends on tourism, there are only about five profitable tourist companies, and they realise individual realised amounts of HRK 5 million per company, after the deduction of taxes and other contributions. The main business leader of the Central Adriatic was supposed to be *Sunčani Hvar*, but this tourist company is still a leader in complexity and shattered company reputation, as well as ownership, business- and financial structure.

Furthermore, Croatian tourism has no longer been only Croatian for more than fifteen years. Over the years, it came under control of

foreign capital, as did many other industries, and most of the realised profit goes to foreign owners through the import of derivatives, food, vessels, various commodities, medicines, telecommunications and various tourism services as well as trade. At the same time, Croatia struggles with collection of tourist tax, monument annuity, tax on profit and income tax, not to mention the Protected Ecological-Fishing Zone, as well as control of anchoring and maritime transport of increasing number of foreign vessels which pollute the environment and the sea. If the financial aspect of the failed national policy, which strongly reflects on tourism, is analysed, the stable and overvalued national currency has been gradually ruining Croatian economy for about twenty years, and all the imported goods and services are cheaper than domestic ones, especially tourist services. When the government boasts of annual tourist revenues ranging from six to seven billion euros, it should be pointed out that half of this amount goes back to the accounts of foreign financial institutions, especially banks, various foreign companies and trade networks, and travel agencies.

In Croatia, the most important tourism benefit currently originates from the first-rate, strong marketing activities abroad. Croatia is recognised abroad for its natural beauties and rich cultural heritage. There are many protected historical monuments under the protection of the UNESCO in Croatia. Therefore, many local entrepreneurs benefit from tourism and presentation of historical and cultural heritage. Although in this case the problem is only in one segment of the tourist supply, it strongly affects the level of foreign tourist offer, and it has strongly developed in Croatia in the past fifteen years. On the other hand, the government still considers direct revenues from this elite tourism, as well as their impact on local budgets, subsidiary. The main leaders of this type of tourist supply are located in Dubrovnik and Zagreb, followed by the Plitvice Lakes, Brijuni, etc. According to predictions by travel analysts, protection, branding and efficient billing of Croatian natural and cultural heritage should have better results in the following decade, which will be accompanied by strong development and modernisation of the total hotel offer. (Hitrec and Hendija 2000,34).

4. IMPACT OF THE ECONOMIC CRISIS ON CROATIAN TOURISM

The current economic crisis has strongly hit Europe as well as European tourism and tourism development trends. The best proof of this

claim is the fact that a great number of potential tourists spend their vacations in their own countries. This behaviour is also a result of the fact that tourist supply on Northern Seas has been greatly improved in the past few years, and many tourist facilities were built. Therefore, tourists from developed Northern countries can fulfil their tourist needs in their own countries (Dulčić and Petrić 2001, 56). This was especially visible during the 2011 season when, for the first time since tourist analyses are recorded, most Germans stayed on vacation in Germany, and it is expected that this trend will continue in the following years. On the other hand, there is also Poland with its Baltic Sea which is located in the vicinity of highly developed Germany, and it is an especially favourable circumstance that Poland is also an EU Member State, and that there are no borders among the EU Member States. It should be pointed out that all the Baltic countries invest a lot in development of their maritime tourist offer. Taking into account all of the above, this part of Europe became competitors of the southern tourist countries. The trend of staying in one's own country is evident in Hungary, but also in Italy. For example, North Italian lakes, except for Italians, attract more and more Austrians, the Swiss, and Germans from southern German counties, because all these countries are closely connected with the EU, there are practically no borders, and they all have very few linguistic, customary, and cultural barriers.

Croatian tourism is for now „saved“ by a cheaper tourist offer in comparison with the competitive countries, although the issue of quality of Croatian tourist products is questionable, and there will be problems if Italy, as its main competitor, starts lowering the prices of its tourist products. A contemporary tourist trend in Western countries is spending vacation in nature, in the mountains, lakes, and engaging in various sports activities in nature, all of which mostly takes place in the summer months (Aliber 2007, 123). All of the above is the reality of the European tourist offer and Croatia should prepare for these new tourist trends in the future if it wants to survive on the European, and especially on the world tourist market.

4. 1. Statistical and Analytical Indicators of Croatian Tourism

Analysis of statistical indicators of Croatian tourism indicates that there are more tourists in Croatia than in the previous years, while national analysts point out certain particularities. One of the more

significant ones is that one can find a parking space next to the beach in the most renowned coastal tourist resorts, which sounds almost incredible, and they also point out non-existence of great summer crowds, which were a common sight since the beginning of Croatian tourism development. On the other hand, the problem of consumption in tourist destinations is another issue. Consumption has been drastically declining and it reached the lowest level in the past ten years (Hitrec 2001, 26). Total physical turnover will surely increase by the end of the year through family accommodation, because renters have many more possibilities for various irregularities in the process of registration of their guests, which they take advantage of, because the state gave them the possibility for wider activities through new legislation according to which they are allowed to rent more beds, at the time sixteen per a single license, and they also benefit from entry into the VAT system, the amount of which rose from HRK 83,000 to HRK 230,000, which is getting closer to the practice of the European countries. According to this law, renters can realise income of up to HRK 230,000 without becoming subjects to VAT, which they had mostly avoided anyway because more registrations imply more contributions to the state, this requires book-keeping, especially if they enter the VAT system, for they cannot get out of it for three years. Therefore, without risking to become subject to special tax, they can report three times larger income and do not have to risk hiding their guests.

4. 2. Facilitated Business Activities in Family Tourism

In 2011, family tourism facilities were increased by about 5 per cent, which amounts to about 452,000 beds and realisation of about 21 million overnights. If the number of a 100, 000 beds in private family accommodation is added to this number, which, according to analysts' estimates, is in the constant turnover on the black tourist market, tourist accommodation offer grows rapidly and creates an impressive tourist resource (Vizjak 2007,156). In comparison, in hotels, which realise about half of the income from tourist accommodation in Croatia, there is only about 130,000 beds with about 15,2 million of overnights. In comparison with statistical data by the Croatian Family Accommodation Association – HZUOS, in the period between the first and the twentieth of July, 2012, there was about seven per cent more tourists and overnights in family accommodation in the Kvarner, in Istria about three per cent more arrivals, and about five per cent more overnights (Croatian Chamber of Economy, 2012). Dalmatia achieved the same results as in the year before, while in

the continental part of Croatia, there are up to 25% better tourist results than was the case the year before. These data are presented in Table 2.

Table 2 . Data for Family Tourist Accommodation from July 1st to July 20th, 2012 in comparison with 2011

Family accommodation in 2012 in comparison with 2011	
Kvarner	+ 7 %
Istria	+ 5 %
Continental Croatia	+ 25 %

Source: Statistical data of the Tourist Board of the County of Primorje-Gorski Kotar, 2012

All the Croatian regions expect much from the tourist season, especially from the Italian *Ferragosto*, which starts in August. In the analysis of tourism results in private accommodation, it is evident that occupancy in smaller tourist facilities which offer less beds on the market declined. On the other hand, houses and villas sell much better, especially abroad, because there is stronger promotion of larger facilities abroad, through mobile communications, Internet networks, telephones, leaflets, brochures, etc. More successful trends are significantly boosted by new activities of the Ministry of Tourism oriented towards increasing the number of beds, and VAT is reduced to the level which allows higher income. Although extra consumption is declining, which is pointed out by renters, they claim that tourist programmes must be improved in order to improve efficiency of the tourist offer, because the classic tourist offer comprising only the sun and the sea cannot provide successful economic and financial results in the future.

According to statistical reports by authorised government bodies which follow tourist trends in Croatia, total financial income in more important industries which provide accommodation services, preparation of food and catering services, but also activities related to travel agencies and organisation of tourist trips, in the first half of the year realised income in the amount of HRK 6,1 billion, which, in comparison with the same period last year, represents growth of about 4,2 per cent, according to the Ministry of Tourism, Ministry of Finance and Tax Administration.

According to these data, all the legal and natural persons providing accommodation in hotels and similar facilities in the mentioned half-year period realised income of about HRK 2,3 billion, which amounts to about ten per cent more than in the same period the year before.

At the same time, camps realised about HRK 54 million, or 14 per cent more income, and tour operators HRK 122,7 million, or about 24 per cent more income than in the previous year. The proclaimed tourism

revenues of about EUR seven billion, planned by the government bodies, are based on the plans made by the Croatian National Bank, but also Tax Administration. In this methodology, all the income from travelling represents consumption of non-residents who travel through Croatia, which also includes items of accommodation, food, entertainment, etc. Data on these items are collected on the border when tourists enter or leave the country. These data collections have been conducted from 1999, the results are compared with the data provided by the Home-Office which has complete information on all the foreign or domestic tourists in the country, but also information on arrivals of foreign tourists from certain countries which are analysed by the Central Bureau of Statistics (Croatian Tourist Board 2012, 20).

Increase in registrations in order to achieve a better level of VAT was to be expected, because before, people found different ways of avoiding payment of state taxes, because people do not like to work to their own disadvantage, especially if investing more work and efforts results in fewer benefits. Different associations of renters of tourist accommodation facilities were pointing out these negative effects of legislation for years, and they pointed out that it was often the case in practice that married couples divided the accommodation unit in order to gain two tourist licences, by which they increased the number of tourists in their accommodation facility and they each realised the legally approved profit of HRK 85,000. They often even rejected reservations because they wanted to avoid reaching the prescribed income level. By implementation of the new legislation, they can perform their business activities without limitations. On the other hand, income level is also important when renters take bank loans with the objective to improve their tourist offer. Rising of the VAT level to HRK 230,000 is indeed a useful financial measure which realises certain positive results in practice, and even better effects are expected in the following season, when people will become better acquainted with all the positive effects of this measure.

The second important negative factor in this tourist season is the evident decline in tourist consumption, and rooms are used less, while suits which include kitchen are more popular. On the other hand, single rooms are successfully sold on the market only in case when kitchen use is also included in the offer. In accordance with these trends, large supermarkets in tourist destinations use the opportunity when a large number of tourists arrives to the destination and raise prices of their groceries over night.

Family accommodation offers an outdated tourist product which is not popular on the tourist market. On the other hand, those who noticed

these new trends and invested in new forms of the family tourist offer, and specialised in their tourist business activities, in a way covered the shortcomings and lack of guests and this type of tourist offer and adapted their offer to market demand, because trends indicate that tourists are not interested only in the sun and the sea. In any case, without additional or specialised tourist offer and strong marketing activities, in the future it will no longer be possible to fulfil tourist-, but also private accommodation facilities.

It is evident that times when tourist supply was uniform and when it lacked a certain level of imagination and spirit are behind us, and modern times, when strong competition all around is taken into consideration, drives us to designing of new forms and types of tourist offer in which the tourist offer will no longer be characterised only by the sun and the sea. The following season should, according to estimates presented in various scientific research, be much harder in economic terms and it will require a sophisticated presentation on the foreign, but also the national market.

5. CONCLUSION

The world crisis and changes it causes in the world became an important factor. It is unavoidable either in tourism or in everyday life. Changes are happening and they encompass all the structures of the society, change habits, behaviour and thinking patterns in everyday life, actions, and business activities of every individual. This verifies the PH3 on a great number of potential tourists who choose to stay in their own country during their vacation.

The main hypothesis on economic rise which is not only based on tourism accomplishments, but rather on dynamic production activity, by application of new technologies and diligence is verified, and the emphasis in the paper is especially placed on the fact that each Croatian tourist company, in order to operate successfully in the future, should find a successful tourist product which can be sold on the tourist market, but also a certain business niche, along with using intellectual capacity of its employees and management, taking into consideration its economic segment which is closely connected with other economic activities, which verifies PH1. .

The strength and performance of a tourist company no longer lies exclusively in capital; it is rather dependent on a person – an employee or a manager and their knowledge, level of information, and motivation. In a

tourist company, business performance and survival depend exclusively on intellectual performance of employees and their motivation, but also willingness to work harder and prolong the season. However, there is obviously no such sensibility in Croatia, which also verifies PH2. .

In the future, business performance of each tourism operator will become even more important, and business success will very much depend on finding innovative human resources able to produce, realise and offer something new and unknown to the tourist market which will be interesting to customers.

The scientific methods used in this paper are methods of systematic analysis, dialectical and logical method, primarily combined with inductive, deductive and conversely deductive-inductive method. Quantitative and qualitative methods are also frequently used with methods of comparison of spatial and temporal characteristics. The scientific contribution of this paper is to analyse and establish the real situation in tourism which has always been one of the primary economic branches in Croatia which stimulated the creation of new development processes and showed the way out of periods of crisis

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**MANAGEMENT OF CAUSE-AND-EFFECT
RELATIONSHIPS OF INVESTMENT EFFICIENCY IN
THE TRADING BUSINESS OF UKRAINE**

JEL classification: C15

Abstract

At the operating stage of the investment cycle problems of evaluation of capital investments efficiency do not rise. At the same time, the development of the concepts of corporate management provides the ability to apply them in the performance management by approach of companies-objects of capital investments.

During the research were used the methods: Statistical Simulation Methods, correlation-regression analysis, the system of lump-sum equations, direct functional relationships.

The attempt to justify the management of efficiency system of capital investments from the position of the object of capital investments for the operational phase of the investment cycle was made. The technique of constructing a model of cause-and-effect relationship of efficiency system of capital investments was proposed, its strengths and weaknesses was identified. The number of indicators of capital investments and exogenous factors can be greatly expanded.

Keywords: *efficiency, investments of capital, cause-and-effect relationships.*

1. INTRODUCTION

In the transitional economy of Ukraine is given significant attention to the promotion of investment activity of enterprises and individuals (Верховна

Рада України, 1991). Under these conditions, management of current and long-term effectiveness of real and financial investments is highly relevant.

In the world of economic science and practice some calculations of capital investment efficiency are carried out mainly in the pre-investment and investment stages of the investment cycle (Беренс, В., Хавранек, П., 1995, Бланк, И.А., 1995, Бондар, М.І., 2008, Бромвич, М., 1996, Бушанский, С.П., 2003, Крупка, Я.Д., 2001, Липчанська. О.В., 2008). For this purpose evaluation of investment projects efficiency, of investment attractiveness, of the probability of bankruptcy, of creditworthiness, of market value of companies and their securities, of analytical financial ratios, etc. are using.

From the moment of the capital investment and throughout the life cycle of enterprises as objects of capital investments investors are not insured against loss of invested funds since performance indicators in such techniques are calculated on the basis of historical data, financial reporting and do not allow to forecast the effectiveness of capital investments for the full business-cycle life of objects of capital investments in the long term.

At the operating and liquidating stages of the investment cycle problems evaluation of capital investments efficiency do not rise. At the operating stage we are talking about the effectiveness of the company or enterprise management, at the liquidating stage – about the division of property between the parties concerned.

At the same time, the development of the concepts of corporate management provides the ability to apply them in the performance management by approach of companies-objects of capital investment (Мескон, М.Х., Альберт, М., Хедоури, Ф., 1992, Петров, М.А., 2004).

The aim of the research is to validate the feasibility of the performance management of capital investments on the operating stage of the investment cycle by approach of companies-objects of capital investment is based on a model of cause-effect relationships of performance indicators.

1.1. Model and Data

This approach was chosen by the author in 1997 with the completion of the candidate's thesis on "Accounting and analysis of costs, revenues and financial performance of trade enterprises." After solving the problems in the thesis the author has expanded the object of study in their further research.

Thus, if the activities of the company described in the accounting such financial and economic categories as costs, revenues and financial results and a result of their analysis are defined profitability, then a more extensive than a combination of three basic concepts that reflect the most important aspects of a

business are the investments in the object and more broader concept than a profitability is the term "efficiency" (Fig. 1).

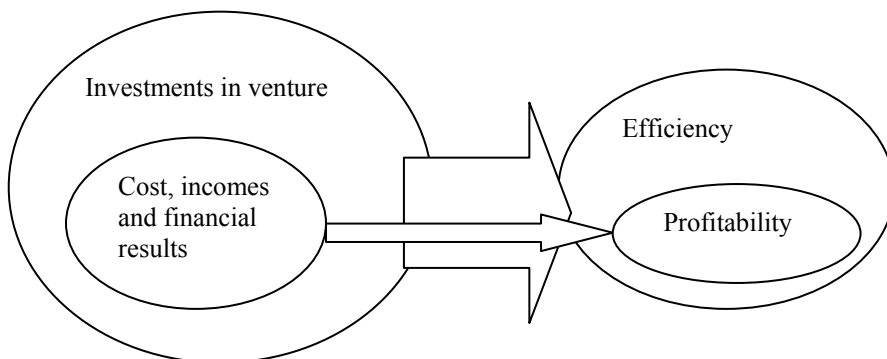


Figure 1 Justification of the choice of the object of research

According to the law of Ukraine "On investment activity" investment activity is defined as an aggregate of actions of citizens, legal persons and the state of the disposal of investments. In accounting, the concept of investment activity is used in relation to capital investments in the capital assets and financial assets of other business entities, but as a result of capital investments by investors of the company have been changing the monetary value of the company's capital.

The problems of evaluating the effectiveness of investments have been investigating mainly in investment management. In the investment management for a determine of investments as a dynamic process uses the term "investment cycle (process)." Most of sources on the investment management listed in the investment cycle only the life cycle stages of the investment project, which culminates of his realization. But, the stages of the life cycle of enterprise-investment object is also advisable to include to the stages of the investment cycle.

In the process of implementation of the investment project the investments go into the sphere of business, which provides investors with economic benefits. Therefore we need to track farther the movement of investment in the business, where the objects of the investment activity of the investor are converted into objects of economic activity of the enterprise (in particular, into the assets of the company) and the investor as the subject of an investment activity are entered into legal relations with the subject of property business (equity of company) (Fig. 2).

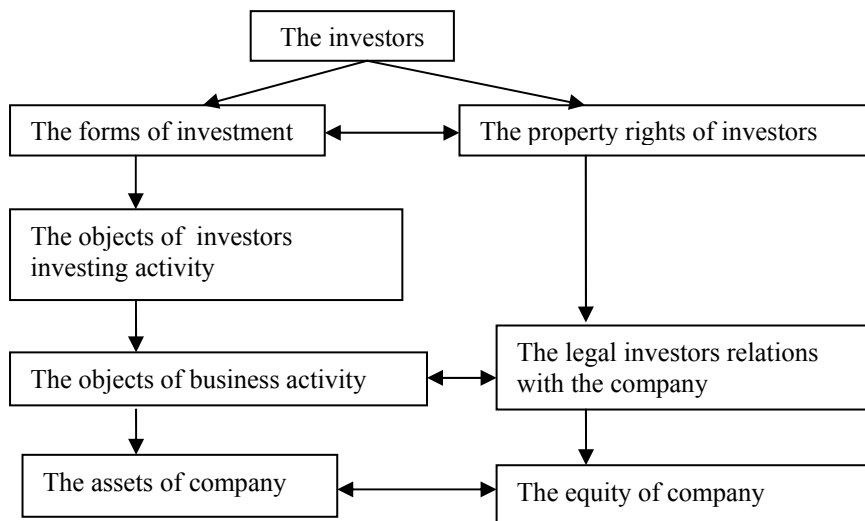


Figure 2 The transformation of investments by investors into the objects of enterprise accounting

According to the Commercial Code of Ukraine companies-objects of capital investments are generated by the decision of the owner (s) of the property or authorized by him (them) of the body, as well as by the decision of other agencies, organizations and individuals through the establishment of a new, through the reorganization (merger, acquisition, isolation, separation, transformation,) existing enterprise (s). The termination of a business entity have been happening through its reorganization (merger, accession, division, transformation) or its liquidation.

Thus, the life cycle of the investments from the point of view of investors includes stages that are recorded in the accounting of company-object of capital investment, namely: 1) the transformation of investment activity objects of investors into the business activity objects and the entry of investors into the legal relations with the company, 2) the change in the transmitted business activity objects and in the property rights of investors to the objects, 3) an exception of investment activity objects of investors from asset of company and a termination investor property relations with the company (Fig. 3).

Thus, the investment cycle should include the following stages: pre-investment, investment, operational and liquidation. On investment, operational and liquidation stages the problem of assessing the effectiveness of capital investments is the object of study as part of the passport of a scientific specialty 08.00.09 "Accounting and Audit", however by this approach on these stages of the investment process, it has not been investigated.

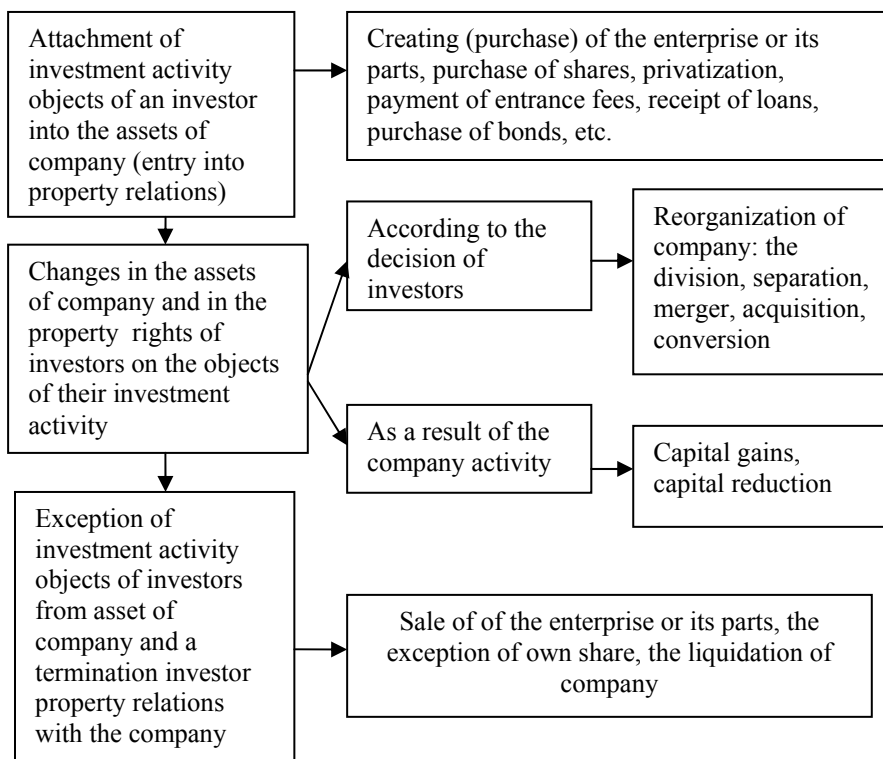


Figure 3 The stages of the life cycle of real investments from the point of view of investors

At the pre-investment stage of the investment process to evaluate the effectiveness of capital investments, mostly used methods for assessing the effectiveness of investment projects and of stock market instruments. At the operating stage of the investment process for these purposes are using the different approaches to evaluating the effectiveness of the enterprise. They can be classified as economic approaches, financial approaches, accounting approaches. In particular, there are using a different approaches to determining the value of the enterprise, its competitiveness and attractiveness, the probability of bankruptcy, creditworthiness, profitability, market share price, financial stability, business activity, liquidity and solvency, efficiency, productivity, clients satisfaction index and personnel satisfaction index, etc.

The effectiveness of capital investments may be determined by one index or by scorecard system that depends on the approach to the definition of the term "efficiency". The author investigated this concept in previous work (Деньга, С.М., 2012) and determined that from the point of view of investors, the effectiveness of capital investments into the company should be understood as the degree of satisfaction of the interests of investors, to the restrictions in the form of

a system of indicators that characterize the degree of satisfaction of the interests of key stakeholder groups of company in a time perspectives. From the point of view of enterprise management, the effectiveness of capital investments into it should be understood as achieving of interests balance of key stakeholder groups in a time perspectives. The author's definition of efficiency of capital investments was based on the concept of stakeholders, which found widespread in corporate management (Петров, М.А., 2004) and synthesized by other approaches that are used to evaluate of efficiency of enterprise management (Мескон, М.Х., Альберт, М., Хедоури, Ф., 1992).

Thus, the effectiveness of capital investments into the company can be determined by using a methodology for assessing the effectiveness of real investment projects in the case of real investments and of stock market instruments in the event of long-term financial investments, as well by using of indicators of the efficiency of enterprises activity, in which was invested, and by using of indicators of the efficiency of enterprise management.

The next scientific concept that influenced on the course of the study, was the theory of evolution, which originated as a biological theory, but over time has been introduced into the sociological and economic sciences. By this concept in economic theory examines genetic model of economic systems. The author have been offering an information representation of genetic model of microeconomic system, which is designed to manage the development of microeconomic system, and is described by the financial and economic indicators (Деньга, С.М., 2008). The proposed model was tested on the statistic indicators of the trading business of Ukraine. In the absence of most of the indicators this experiment looks very modest, but at the same time proves the feasibility of the using of the developed model for performance management of investments into company, into branches and into the economy, not only at the micro level, but also at the region, state or international business.

The performance management problems were researched also by developing of custom software for performance management (information systems BPM/CPM). The composition of these systems include the modules of multidimensional business analysis, of strategic analysis, of budgeting, of balanced score card (BSC), of project analysis and of others that track performance indicators. The proposed methodology for managing cause-and-effect relationships of scorecards of capital investments efficiency in the composition of BPM / CPM-system will contribute to the achievement of targets on the operational, on the tactical and on the strategic levels of management.

For the purpose of modeling causality model indicators are grouped as follows: exogenous factors, capital investments, income and the effects produced, performance (can be grouped by time prospects and investor groups) (Fig.4).

Groups of model indicators are interrelated, in particular, the indicators of the external potential and external factors influence on the indicators of investment capital and the indicators of revenues and effects, and the indicators of

capital investments, for its part, also influence on the indicators of revenues and effects. The effect of these factors can only be measured using statistical methods. In turn, the indicators of investment capital and the indicators of revenues and effects influence on performance indicators. The last relationship can be described by a direct functional linkages.

To build the model in chronological aspect were collected statistics data for the years 1996-2011 in three groups of indicators [2,3,4,14].

In particular, the data about the external factors (xi) were covered: the volume measures of GDP at current prices (x1), the population of Ukraine (x2), population incomes (x3), the consumer price index (x4), the average official exchange rate of the national currency to the U.S. dollar (x5), the NBU discount rate (x6), the average rate for loans (x7), the Human Development Index (x8), the index of economic freedom (x9) and its components (x10-x16).

Data about capital investments (ki) were presented: total capital (k1), own capital (k2), a non-current capital (k3), fixed assets (k4), current assets (k5), the annual average number of employees (k6), the number of retail traders (k7), their trade area (k8), the volume of investment in fixed assets (k9).

The data about the income and the effects (ei) were covered the revenue of retail trade (e1), the financial result from ordinary activities before tax (e2).

In the first phase of construction of a model the sequence of determination of mathematical functions was chosen the following: 1) there were calculated correlation coefficients between the indicators, 2) on the factors that have a correlation coefficient above 0.7, were built the regression models, 3) the accuracy of the model was checked by Fischer test, 4) the accuracy of the coefficients of the model were tested by Student's t-test, 5) if the function was being tested on the above criteria, it was chosen for the system of equations, 6) if the function was not validated by the criterias of Fisher and Student's, was found another models.

If the function is not validated by the criterias of Fisher and Student's, then it is likely that it is non-linear. In this case it is advisable to choose the non-linear equation using analytical package «Statistika» or build a nonlinear equation of the two factors in Excel.

In the second phase of construction of a model we can build a direct functional relationship of performance, obtained effects and capital investments indicators.

In the third phase can build the system of lump-sum equations (1), which covers the stochastic dependences of capital investments and exogenous factors, stochastic dependences of the effects, capital investments and exogenous factors and direct functional dependences of the performance, the effects and capital investments.

$$\begin{aligned}
 K_1 &= -502190 - 0,98*x_1 + 1,4*x_3 + 34857*x_5 + 7501* x_{12} \\
 K_2 &= -105737 - 0,1*x_1 + 0,1*x_3 + 701*x_5 + 1931* x_{12} \\
 K_3 &= -100627 - 0,1*x_1 + 0,2*x_3 + 4560*x_5 + 1616* x_{12} \\
 K_4 &= -5052 + 0,02*x_1 + 0,1*x_3 + 1811*x_5 + 56* x_{12} \\
 K_5 &= -410773 - x_1 + 1,4*x_3 + 24226*x_5 + 6413* x_{12} \\
 K_6 &= 578,3 - 28*x_5 + 0,7* x_{12} \\
 K_7 &= - 394 + 10*x_2 + 0,14*x_6 + 0,14*x_7 - 0,14*x_{10} - 0,01*x_{13} \\
 K_8 &= 3171 + 37,8*x_4 + 101,7*x_6 - 84,6*x_7 + 12*x_{16} \\
 K_9 &= -14678 + 0,1*x_1 - 0,08*x_3 - 222,4*x_5 + 154* x_{12} \\
 E_1 &= -45345,3 + 0,5*x_1 - 0,22*x_3 - 5017,5*x_5 - 38*x_{12} + 0,002*k_1 - \\
 & - 0,47*k_2 + 0,23*k_3 - 0,11*k_4 + 0,05*k_5 + 66*k_6 - 2,26*k_9 \\
 E_2 &= E_1 - B \\
 Y_1 &= e_1/k_1 \\
 Y_2 &= e_1/k_2 \\
 Y_3 &= e_1/k_3 \\
 Y_4 &= e_1/k_4 \\
 Y_5 &= e_1/k_5 \\
 Y_6 &= e_1/k_6 \\
 Y_7 &= e_1/k_7 * 1000 \\
 Y_8 &= e_1/k_8 * 1000 \\
 Y_9 &= e_1/k_9 \\
 Y_{10} &= (e_2/k_1) * 100 \\
 Y_{11} &= (e_2/k_2) * 100 \\
 Y_{12} &= (e_2/k_3) * 100 \\
 Y_{13} &= (e_2/k_4) * 100 \\
 Y_{14} &= (e_2/k_5) * 100 \\
 Y_{15} &= e_2/k_6 \\
 Y_{16} &= e_2/k_7 \\
 Y_{17} &= (e_2/k_8) * 1000 \\
 Y_{18} &= (e_2/k_9) * 100
 \end{aligned}$$

(1)

where:

X1 - the physical volume of GDP at current prices;

X2 - the numbers of the population of Ukraine;

X3 - incomes of population of Ukraine;

X5 - the average official exchange rate of the national currency to the

U.S. dollar;

X6 - the NBU discount rate at the end of the year;

X7 - the average percentage of loans;

X10 - index of business freedom;

X12 - index of tax freedom;

X13 - index of investments freedom;

X16 - the index of freedom from corruption;

K1 - total capital volume of trade enterprises of Ukraine;

K2 - own capital volume of trade enterprises of Ukraine;

- K3 – the non-current assets of trade enterprises of Ukraine;
- K4 - the fixed assets of trade enterprises of Ukraine;
- K5 – the current assets of trade enterprises of Ukraine;
- K6 - the annual average number of employees of trade companies of Ukraine;
- K7 - the number of retail traders of Ukraine;
- K8 - trading area of retail trade enterprises of Ukraine;
- K9 - fixed investment of trade business of Ukraine;
- B - expenses of ordinary activity of trade business of Ukraine;
- E1 - retail trade turnover of trade enterprises of Ukraine;
- E2 - the financial result from ordinary activity before taxation;
- Y1 - returns on total capital of trade business of Ukraine;
- Y2 - returns on own capital of trade business of Ukraine;
- Y3 - the return on non-current assets of trade business of Ukraine;
- Y4 - the return of fixed assets of trade business of Ukraine;
- Y5 – the return on current assets of trade business of Ukraine;
- Y6 - labor productivity in the trade of Ukraine;
- Y7 - trade turnover per one trade company of Ukraine;
- Y8 - turnover per 1 sq. m of retail area of Ukraine;
- Y9 - return on fixed investment of trade business of Ukraine;
- Y10 - profitability of total capital of trade business of Ukraine;
- Y11 - profitability of own capital of trade business of Ukraine;
- Y12 - profitability of non-current assets of trade business of Ukraine;
- Y13 - profitability of fixed assets of trade business of Ukraine;
- Y14 - profitability of current assets of trade business of Ukraine;
- Y15 – the profit per one employee of trade of Ukraine;
- Y16 – the profit per one retail trader of Ukraine;
- Y17 - the profit per 1 square meter of trading area of retail trade enterprises of Ukraine;
- Y18 - profitability of fixed investment of trade business of Ukraine.

At the last stage of model building, we are able to predict the performance indicators which are dependent on exogenous factors, capital investments and obtained effects. It is advisable to build an optimistic, pessimistic and realistic forecasts, using the method of factor analysis, which called "if ... then ..." (Tables 1 to 4).

Table 1

Projections about external factors which influence on the effectiveness of capital investments into the trading business of Ukraine for 2013

Indicators	Forecasts:		
	optimistic	pessimistic	realistic
The physical volume of GDP at current prices, mln.grn (x1)	1400000	1200000	1350000
The numbers of the population of Ukraine, million people (x2)	46	44	45
Incomes of the population of Ukraine, mln. grn (x3)	1500000	1000000	1300000
Indices of consumer prices for all goods to the previous year,% (x4)	110	120	115
Average official exchange rate of hryvnia to U.S. \$ 1, set by the NBU (x5)	7,5	10	8
Discount rate at end of period,% (x6)	7	9	8
Interest rates on loans,% (x7)	10	20	12
The index of human development (HDI) (x8)	0,735	0,7	0,73
The index of economic freedom (x9)	50	40	46
The index of business freedom (x10)	50	40	48
The index of free trade (x11)	50	45	48
The index of fiscal freedom (x12)	80	70	78
Freedom of investments (x13)	30	20	25
Financial freedom (x14)	40	30	35
Protection of property rights (x15)	50	20	30
Freedom from corruption (x16)	25	20	23

Source: Calculated on the basis of the Державна Служба Статистики України, 2013, Держкомстат України, 2010 using a system of equations (1)

Table 2

Projections about capital investments in the trade business of Ukraine for the year 2013

Indicators	Forecasts:		
	optimistic	pessimistic	realistic
The total capital of trade enterprises at the end of the year, mln. grn. (k1)	1087318	595450	858744
Own capital volume of trade enterprises at the end of the year, mln. grn.(k2)	275475	227917	256963
The non-current assets at the end of the year, mln. grn. (k3)	252853	158093	212901
Fixed assets at the end of the year, mln. grn. (k4)	191011	140978	170804
Current assets at the end of the year, mln. grn. (k5)	983962	480397	753249
Average annual number of employees in thousands person (k6)	424	347	409
The number of retail traders of Ukraine at the end of the year, thousand units (k7)	61	44	51
Trading area, square meters (k8)	7502	7176	7599
Fixed investment at current prices, mln. grn. (k9)	15974	33878	26555

Source: Calculated on the basis of the Державна Служба Статистики України, 2013, Держкомстат України, 2010 using a system of equations (1)

Table 3

Projections about incomes of trading business of Ukraine for 2013

Forecasts/ Indicators	The volume of retail sales in current prices, mln. grn (e1)	The financial result from ordinary activity before tax, mln.grn (e2)
optimistic	251459,6	25146,0
pessimistic	180702,0	18070,2
realistic	231939,7	23194,0

Source: Calculated on the basis of the Державна Служба Статистики України, 2013, Держкомстат України, 2010 using a system of equations (1)

Table 4

Projections about performance indicators of trading business of Ukraine
for 2013

Indicators	Forecasts:		
	optimistic	pessimistic	realistic
Returns on total capital of trade business of Ukraine, grn. (y1)	0,2	0,3	0,3
Returns on own capital of trade business of Ukraine, grn. (y2)	0,9	0,8	0,9
The return on non-current assets, grn. (y3)	1	1,1	1,1
Return on fixed assets ,grn. (y4)	1,3	1,3	1,4
Return on current assets , grn. (y5)	0,3	0,4	0,3
Labor productivity, thousand UAH. (y6)	592,6	520,3	567,2
Trade turnover per one enterprise, thousand UAH. (y7)	4150,9	4120	4516,8
Trade turnover per 1 sq. m of retail area, thousand UAH. (y8)	33,5	25,2	30,5
Return on fixed investment, grn (y9)	15,7	5,3	8,7
Profitability of total capital,% (y10)	2,3	3	2,7
Profitability of equity capital,% (y11)	9,1	7,9	9
Profitability of non-current assets,% (y12)	9,9	11,4	10,9
Profitability of fixed assets,% (y13)	13,2	12,8	13,6
Profitability of current assets,% (y14)	2,6	3,8	3,1
Profit per one employee, th. (y15)	59,3	52	56,7
Profits per one retail trader, thousand UAH. (y16)	415,1	412	451,7
Profit per 1square meter of trading area, grn (y17)	3351,7	2518	3052,1
Profitability of fixed investment,% (y18)	157,4	53,3	87,3

Source: Calculated on the basis of the Державна Служба Статистики України, 2013, Держкомстат України, 2010 using a system of equations (1)

According to the results of the correlation-regression analysis we can see the following conclusions.

Total capital, own capital and non-current capital of trade business, the sum of the fixed assets and of the current assets, as well as the annual average number of employees in the trading business of Ukraine and fixed investments during the years 1996-2011 grew in direct proportion to the volume of GDP, to incomes of population of Ukraine, to the average the official exchange rate of the hryvnia to the U.S. dollar and to the tax freedom index and inversely proportional to the number of population of Ukraine, to the interest rate on banks loans, to the NBU discount rate and contrary to decrease of the indices of business freedom, of trade freedom and freedom of investments. The dependence of these indicators of capital investments and other exogenous factors was weak.

The presence of retail traders of Ukraine decreased in inverse proportion to the growth of GDP volume, to the growth of incomes of population of Ukraine, of the average official exchange rate of the hryvnia to the U.S. dollar, to changes of economic freedom index, to the growth of tax freedom index. Direct dependence of the amount of retail traders in Ukraine in 1996-2011 years have to seen to the number of population, to indexes of business freedom, of trade freedom and of freedom of investment. With other exogenous factors this indicator was dependent slightly.

Trade area for years 1996-2011 was reduced to 2004, and then began to grow. This indicator showed strong direct dependence with the NBU discount rate and the index of freedom from corruption. Feedback dependence of retail area is set to the index of economic freedom.

The volume of retail trade turnover of Ukraine in 1996-2011 years growing up in close dependence to the volume of GDP, of incomes of population of Ukraine, of the average official exchange rate of the hryvnia to the U.S. dollar, as well as total capital, own capital, non-current assets of trade enterprises of Ukraine, of their fixed assets, of current assets and of fixed investments. The inverse relationship of this parameter is observed during this period with the number of population of Ukraine, with the indexes of business freedom, of trade freedom, of investment freedom, with the amount of retail traders.

In general, we can note the positive trends in the trade sector of the economy: 1) the growth of capital investments and of trade turnover with the growth of GDP and of incomes of population, 2) a direct dependence of capital investments and obtained effects with inflation index, 3) increase of the obtained effects with an increase of capital investments, 4) agglomeration of the trade network.

So, the inverse relationship of capital investments and of the effects of the trade with indices of freedom of investment, of trade freedom and business freedom can not be described positively. This situation is caused by incorrect calculations of these indexes, or the excess of influence of mental factors compared with the economic laws for the process of investing capital in the trading business of Ukraine and entrepreneurship.

The tendencies of stochastic dependence of the investment capital and of the obtained effects undoubtedly manifested in indicators of efficiency. There are some distortions in the understanding of the optimistic and pessimistic forecasts from the point of view of trends in the external environment and trading business in Ukraine. In particular, the pessimistic forecast of total capital return (0.3 grn.) was better than the optimistic (0.2 grn.), and the same with respect to the turnover on UAH 1 capital. This indicates a decrease of the total capital return of trading companies (more rapid growth of capital investment as compared to the effects obtained from them), with the progressive development of the external environment factors. The same is observed for the non-current assets returns, for fixed assets and current assets returns, and profitability of total capital, of non-current capital, of fixed assets, of current assets, and for the profit per one enterprise. Other trends of performance indicators consistent with the general trends in the development of Ukraine's economy.

2. CONCLUSIONS

Thus, performance management of capital investments in the business at the operational stage of the investment cycle can be carried out by modeling the cause-effect relationships of the system performance indicators and system of exogenous factors, of indicators of capital investments and of the obtained effects. The model can be built on the system of lump-sum equations, which are calculated by the stochastic and functional links between the above indicators. The system performance indicators can be significantly expanded and built in the context of capital investors (stakeholders) and time horizons (short-, medium-and long-term). The number of indicators of capital investments and exogenous factors, too, can be greatly expanded. The system of equations can also include the functional relationship between the planned indicators. Performance management of capital investments in the business from the perspective of the object of capital investments allows to predict, to monitor, and to analyze of the performance indicators system (as opposed to one or more integrated indicators) over the full life cycle of the enterprise-object of capital investments. To some extent, forward-looking indicators of efficiency can be manipulated by changing the parameters of capital investments (dependend management indicators).

The disadvantages of the approach are: 1) the proposed method of construction of the model can be applied only in the context of stable development of the economy, else stochastic communication parameters may not be set, 2) technique requires a large sample of statistical information, 3) it is sometimes difficult to establish the factors that actually have impact on the performance, that is, made calculations may not lead to the identification of mathematical functions.

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STATIONARY TRAFFIC – THE CONTEMPORARY PHENOMENON IN THE LOGISTICS SYSTEM OF A TOURIST DESTINATION

JEL classification: N70

Abstract

For tourism as one of the most propellant and yet at the same time one of the most sensitive and most flexible industries, slowly but surely, the time of counting tourist arrivals and their overnight stays is coming to an end. Tourist experiences are becoming a part of the economic offer, together with the goods and services, i.e. they are the response of the service provider to the demand of the contemporary user (tourist) who wants to be treated in a personalised and memorable manner. In this way the need for a balanced coordination is created, i.e. preparation, implementation, monitoring and correction in management of life and of activities in every single tourist destination – from the urban planning, the utility infrastructure, the offer of original tourist products all the way to ensuring sufficient parking lots. Location of the parking capacities, their arrangement in space, the number of parking lots and the distance from tourist attractions are the fundamental determinants in providing the quality stationary service for tourists' cars which, integrated with the remaining tourist services, represents also the determinant of the destination's quality tourist product.

Keywords: stationary traffic, logistics system, tourist destination

1. INTRODUCTION

A tourist destination is a functional unit consisting of many factors, primarily hospitality, tourist attractions, transport capabilities and facilitation activities which the tourist market recognises as the carriers of the tourist offer. Also, a tourist destination as a location represents the reason for people to travel. Activities in a tourist destination imply the movement of people, transfer of goods, information and energy, waste treatment and transfer of knowledge and capital. The optimisation of the mentioned courses on a certain territory is the objective of the tourist destination's logistics. In this complex task, the logistics utilises transport, its capacities and organisational forms.

Most of the transport flow on the territory of a tourist destination consists of passenger courses and is realised through road transport. Passenger courses in a destination continually go from the state of motion to a parked state, but the pattern according to which the changes happen differs depending on the type of passenger courses (tourists, local residents, transit passengers, excursionists and others).

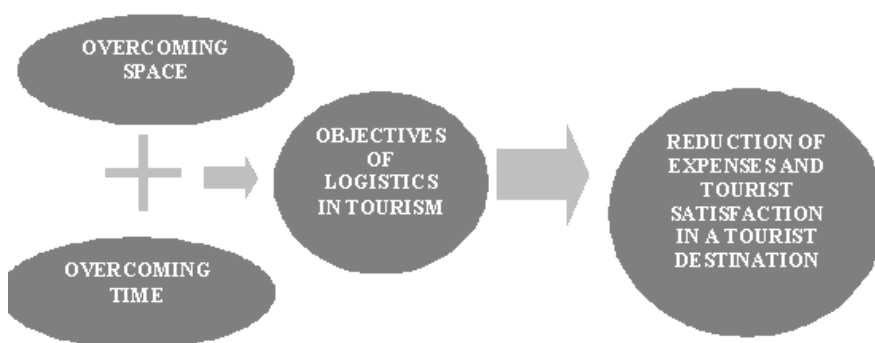
The modern tourist prefers several shorter trips during the year, during which a complete and high quality tourist product is expected. This means that in a short period of time, tourists want to have the entire offer of a destination at their disposal. They also want a connected unit that will fulfil their expectations and will not put them in a situation where they have to spend a lot of time and effort finding out whether the destination really provides everything they were offered when they were deciding on their trip. Because of this demand, destinations need to be well-organised, their offer should be connected as a whole, prices should be realistic and the offer should constantly be renewed and enriched so that the destination has the longest possible lifecycle.

The tourist destination's offer should be planned, organised and connected into a whole, and the destination, which has numerous and diverse activities, should be managed in a way that makes it recognisable in the tourist market. The destination's offer is a mosaic of various services and products, such as: accommodation, food, attractions, other tourist services and facilities, transport, other infrastructure and institutional elements. Other elements of the tourist offer are: sports and entertainment, shops and repair shops, tourist information, post offices and telecommunications, emergency intervention services, staff education, promotion and sales, and banking and financial services. The connection of all the elements that are part of a destination's unique tourist product assumes numerous diverse processes, including transport processes, while the parking process of guests' cars is also of great importance.

2. THE CONCEPT AND OBJECTIVES OF LOGISTICS IN TOURISM AND TOURIST DESTINATIONS

Logistics is a scientific discipline that deals with finding methods of optimisation of the flow of materials, goods, information, energy (and people) with the objective of having the largest economic effect. In order to fulfil its task, logistics uses scientific instruments and scientific knowledge of many disciplines, so it should be seen as an interdisciplinary and multidisciplinary field.

Logistics in tourism is the space and time transformation of materials, people, information, energy, knowledge and capital with the objective of establishing a quality tourist service with minimum expenses. The objectives of logistics in tourism are: optimisation of the flow of goods, people, information, energy, knowledge and capital in order to produce a tourist service that satisfies customers. Image 1 shows the objectives of logistics in tourism: reduction of expenses and achieving tourist satisfaction in a tourist destination.



Picture 1 Objectives of logistics in tourism

Source: (Vučetić, Š., 2011, pp. 320).

The logistics of a tourist destination is the optimisation of the flow of people, materials, information, energy, waste, knowledge and capital on a certain territory in order to offer a quality tourist product. The conclusion is that its basic objective is to harmonise all material and non-material courses related to tourism in order to provide a high quality tourist offer at a destination, but also to ensure the higher efficiency of all business systems in its territory.

A systematic approach requires the inclusion of all activities and groups of activities, as well as processes among and within them, which interact in a complex manner, to manufacture a product that is attractive and acceptable to the tourist market. Therefore, the logistic system of a tourist destination includes the following main parts: hospitality subsystem, facilitation subsystem, transport

subsystem, tourist attraction subsystem, and destination management and organisation subsystem.

The modern tourist has timely information and is aware of the price and quality of a service offered in the market. As a user of the tourist service, they will choose the service that is most acceptable in terms of price and which they assess is of sufficient quality in relation to the money spent. It needs to be pointed out that one should not insist on the lowest price of an offered tourist service because that is not and will not be the objective of logistics in tourism. Therefore, it is important to put precisely the service user, i.e. the tourist, into the focus of the research of tourist service satisfaction. This leads to the improvement of the tourist offer and the satisfaction of the users of various services.

In the complex logistic system of a destination, which aims for the optimisation of logistic courses as an assumption for a high-quality tourist product, transport activity plays an important role, which is also present in the operative and information subsystem. From a functional point of view, the transport subsystem enables all physical and most information courses in the destination.

Scientific considerations and the practical application of logistics in tourism, as well as in transport, become possible when it is obvious that the application of logistic principles outside the flow of goods and information, and also outside the economy, can result in very favourable effects reflected in higher quality and cheaper products and services.

3. TRANSPORT SUBSYSTEM IN THE LOGISTIC SYSTEM OF A TOURIST DESTINATION

The primary objective of transport at a tourist destination is to fulfil the tourist demand. It is articulated between the emission market and the destination with the purpose of transport availability, then in the territory of a micro-destination (settlement) with the purpose of the availability of the tourist offer, and in the micro-destination and nearby territory with the purpose of familiarising tourists with the attractions and supplying the destination with products for the needs of tourists.

This functional structure of the transport subsystem in a tourist destination is based on the role which transport has in the destination's tourist product and the transportation distance. The primary function of transport is connecting the emission market with the destination. The selection of the transport mode is primarily affected by demographic, geographic and psychosocial factors, as well as tourist behaviour. Tourist flows significantly affect the entire transport towards the tourist destination, primarily the utilisation of the capacities of roads and accompanying facilities, environmental devastation and transport safety. However, a tourist destination can also direct tourist flows

towards preferred transport forms with modern infrastructure and inform people about tourist attractions and events on chosen transport routes.

Transport towards a destination is also determined by the transport on the destination's territory. Giving an advantage to road transport also necessarily leads to a dominant role of this transport form in a micro-destination, with all the positive and negative consequences. One of the most significant negative consequences is an insufficient capacity of the streets, local roads and parking spaces. Therefore, the national transport politics for reaching strategic decisions on transport connection should always bear in mind that this determines a potential transport reality during the tourist season in the destination.

The role of transport in the increase of the attractiveness of a tourist destination primarily depends on the geographic characteristics of the territory, purchasing power of users, business 'climate', which will more or less encourage these forms of tourist and transport offer, product promotion and similar. The market recognisability and attractiveness to tourists of numerous destinations in global proportions exists thanks to the success of transport in presenting a destination.

The task of the logistic concept (Zelenika&Pupavac,2008) of a tourist destination is to include all transport courses into a functionally harmonious whole. Sufficient capacity and an appropriate location are the starting point for harmonisation. It is necessary to harmonise the national transport strategy and transport politics with the local ones and to harmonise the local transport politics with the objectives of tourism development. The modernisation and construction of transport infrastructure, selection of the direction and location on a micro-destination level is mostly entrusted with local administration bodies that are in charge of transport, but they need to closely co-operate with the bodies in charge of tourism development.

Logistics supports the management of logistic courses in a destination. Since tourist courses and the destination need to be managed, this management should also include logistic courses (transport and other logistic courses) in the destination. The transport process is a heterogeneous phenomenon depending on the type of transport and the transport means, length and duration, transport effect and ratio of time in motion and in parking. It is precisely the alteration of motion and parking of transport means in a tourist destination that is the characteristic of the transport process that burdens the existing infrastructure more than others. The situation is most complex in road tourist destinations, especially those to which tourists arrive in their own cars.

4. PARKING – A FACTOR OF LOGISTIC SYSTEMS IN TOURIST DESTINATIONS

The role of transport, and especially individual transport, is of extreme importance in tourism. The average proportional representation of certain

categories of vehicles important for tourism in the overall global vehicle 'population' distinctly favours personal cars (85 to 90%), while there are considerably fewer buses (0.5 to 1%) and motorcycles (1 to 2%). Road transport is the dominant form of transport in which tourists arrive in Croatian tourist destinations. The latest research carried out by the Institute for Tourism in 2010 gives the following indicators: 90.4% of tourists use road transport (cars, cars with travel trailers and buses) to arrive to tourist destinations in Croatia, 8.6% of tourists use air transport, 0.7% of tourists use sea transport (ship, ferry and yacht), while 0.3% of tourists use rail transport. The data shows the preference that tourists give to road and air transport when they arrive at Croatian tourist destinations. The use of sea and railroad transport falls far behind.

Most tourist destinations are characterised by great transit transport of motor vehicles through the centre, a great number of cars belonging to tourists during the tourist season, lack of car parking spaces, numerous contents (storage and industrial plants) that continue traditional production in centres, but should be moved from there, and an increasing number of shopping centres in the very centre of a destination. It is known with certainty that transport intensity depends on the amount of travel. The amount of travel per person, i.e. tourist, or the amount of cargo depends on numerous transport, urban and other economic factors, i.e. activities of individuals, groups and economic activities. The number of tourists and visitors' cars, which considerably increases during the tourist season and creates large problems for normal transport, is an extremely important factor that affects the intensity of road transport.

Transport problems in tourist areas are extremely complex due to a great increase in transport during the tourist season in relation to the remainder of the year. Destinations with a large percentage of motorised tourists are sometimes paralysed with road transport. Identifying and resolving the transport problem as a whole, and especially the problem of parking, is always lagging behind in relation to resolving other transport issues. The development of a transport network is always exposed to issues, which are sometimes caused by an extremely unfavourable terrain configuration, which requires complex technical solutions and usually great investments (Pupavac & Maršanić, 2010).

In the process of providing a tourist service, the placement of tourists and visitors' cars is an important link in the overall quality of a tourist destination's offer. Many tourist destinations have increased needs for accessibility which cannot be fulfilled in a quality way without interventions in the existing communal structure (Mrnjavac, 2006), both in organisational and technical terms. Regardless of the means of arrival (bus, personal cars), there is an increasing disproportion between the transport demand and the existing road infrastructure.

This disproportion is most obvious in the organisation of parking in tourist centres – the abundance of content in the centres is the reason why many tourists, as well as local residents, decide to arrive by some form of road transport

to the city centre. The existing state of parking in tourist destinations is unsatisfactory due to the undeveloped and non-established scientific approach in the forecasting, planning, designing and organising of parking based on the interaction between the purpose of surfaces and generation of trips during which parking issues occur.

The structure of the transport subsystem in a tourist destination shows that most of the transport courses consist of passenger courses, where it is sometimes impossible to separate the courses of tourists from the courses of other passengers because they use the same transport capacities, i.e. transport means (public transportation) and infrastructure. Passenger courses in a destination continually go from the state of motion to a parked state, but the patterns according to which changes happen differ depending on the type of passenger courses (tourists, visitors, local residents, transit passengers, excursionists). The diversity of motives that encourage them into motion also affect the selection of the parking location, parking duration, frequency of the need for parking in a day, a week, etc. and the expected standard of the parking service and willingness to pay for it (Mrnjavac, et al, 2008).

Tourist destinations should count on a multifold increase in the demand for parking spaces during the tourist season compared to low season, when the demand for parking is generated mostly by local residents. In accordance with that, the infrastructure intended for the parking of tourists' cars in the low season period will be unused, both due to the size of its capacity and the location that is adjusted for hospitality facilities or tourist attractions. Basically, garage facilities in destinations with extremely pronounced seasonality (short season) would not be profitable due to an unfavourable ratio between the investment and short length of time during which it is possible to charge for the service.

A tourist destination is the reason that travel takes place, and the tourist goods and services in it cause needs. The tourist and developmental policies in general are usually directed to an increase in tourist accommodation capacities in hotels, camps and private apartments and rooms. An increase in the number of tourists and overnight stays leads to an increase in the vehicles in motion, a higher demand for parking spaces and pedestrian needs, which is generally not resolved in time and in an appropriate way. Transport congestion in almost all tourist cities is a daily phenomenon during the tourist season due to the lack of parking spaces.

5. LOGISTICS IN THE PARKING POLICY SYSTEM IN TOURIST DESTINATIONS

The need for car parking in a tourist destination is one of the basic determinants of the tourist demand in transport (Pupavac,2009). Research into visitor satisfaction in destinations shows a lower level of satisfaction if there is not enough parking capacity, which leads to the conclusion that sufficient

capacity and the proper location of parking spaces increases tourist satisfaction, as well as the quality of the tourist product from their point of view. In accordance with that, the basic objective of parking policy is to increase the accessibility of tourist content and mobility within the tourist destination.

It should be noted that the quality of a tourist destination, apart from many tourist factors, also includes a satisfactory number of parking spots, both for local residents and for tourists who visit it (Maršanić, 2012). In relation to this, fulfilling the demand for parking spaces for tourists is equally important for visitors as other tourist services. If it is impossible to find a parking space within a reasonable amount of time and in a location that is a reasonable distance from the tourist content, visitors are disabled from 'consuming' and using the tourist services regardless of how attractive they are and how good their quality is.

Particularly burdened parking lots in a tourist centre are treated as parking spaces at which high parking prices and parking time restrictions discourage car parking. Considering the specificities of tourist destinations, for instance on the Croatian coast, it is necessary to organise a parking structure that can be classified in four basic groups (Maršanić, 2012) :

1) Reviewing the basic transport directions that give access to the centre of a tourist destination, it is necessary to organise a certain number of parking locations that are relatively far from the centre itself, but are extremely stimulated, either through their own organisation or fees and especially favours tourists and visitors. This group of parking lots is often organised in a way so that parking is free and of unlimited duration.

2) So-called access parking lots are most often organised on bigger surfaces that are a natural location for the access to the central core and are also close enough to the historical core where almost all the social, cultural and business activities are carried out. Parking in these access parking lots should be supported with lower parking prices, unlimited parking duration and various other privileges for local residents, as well as tourists. Also, a discouraging parking price on other parking lots and with other parameters is also beneficial so that the transport is stopped in the locations of the access parking lots and there are fewer vehicles entering the centres of tourist destinations.

3) In the locations closer to the centre of a tourist destination, street parking lots should be organised. They are usually open and provide for short stops, so they apply charging technologies that are actually discouraging, but still not exclusive. Charging in this part of town is mostly carried out through parking metres (only exceptionally through manual charging), which implies the use of these parking spaces mostly by local residents, employees and other more or less permanent users who usually use these parking spaces in order to perform their jobs or because they live in that part of the tourist destination.

4) A pedestrian zone is organised in the very centre of a tourist destination through banning traffic. However, considering the needs of residents

and deliveries, traffic is organised according to a special regime. Generally, a pedestrian zone consists of several connected streets and squares in which traffic is forbidden for all motor vehicles, except for residents and deliveries, and they are also allowed to drive only during certain times of the day. Such streets are generally redesigned in a way so that the classic road is eliminated and they contain large-sized pedestrian surfaces and greenery, with the addition of urban equipment that emphasises the pedestrian function of the street. This visually and functionally determines and marks the street's character. Public transportation of smaller dimensions is generally tolerated within the pedestrian zone (vans and mini buses), as well as bicycles. Larger tourist destinations can have several pedestrian zones that do not necessarily create a spatial continuity. This location includes all potential users with an adequate privileged regime, and special cards are usually used for entrance into such zones, so that the narrow centre of the tourist destination charges with precisely this medium.

Parking time restrictions in the mentioned parking structures apply to all types of users. Most tourist destinations have decided to introduce the 'pedestrian zone' regime in the centre of the historical or tourist core. Traffic is forbidden to all vehicles within that zone, except to delivery vehicles, intervention vehicles and residents' cars, but exclusively for the needs of supply and various interventions. Parking gates denying access are planned in this territory, while the identification and permission to pass is carried out through a special parking card. The territory of the old and historical core itself is specific and, as such, is specially treated in order to ensure maximum comfort to the residents of this part of the town and the delivery service, but not to the benefit of the basic requirement — that this type of core is reserved exclusively for pedestrians considering its historical, cultural and tourist value. Administrative centres and attractive zones of the coastal belt are most often defined as locations with high prices and restricted parking times.

Parking policies cannot be restrictive, but should be a developmental factor of each tourist destination, meaning that they should mostly be proactive. A proactive parking policy is capable of anticipating stages in the developmental process of each destination attractive to tourists and of harmonising the parking capacities with the parking requirements.

The first stage in the developmental process of a tourist destination is characterised by few visitors, untouched natural beauties, a poor tourist offer and a low demand for parking capacity.

Substantial problems with tourist and visitor car parking usually do not appear in the second stage of development, so street parking and occasional arranged parking surfaces in tourist destinations can ensure most of the necessary parking spaces.

A disproportion between the transport demand and the existing road infrastructure in tourist destinations appears in the third stage. The transport quality (roads, traffic connection, parking capacities) becomes one of the basic

factors of the concept of the attractiveness of any tourist destination in this stage of development. Parking policies in this stage of development concern restrictions, control and charging of street parking in central areas. Proposals that enable the resolving of parking issues are considered, especially: 1) connecting streets with the main roads, 2) turning two-way streets into one-way, with the possibility of side parking, and 3) reconstruction of crossroads and construction of new connections with the purpose of the better regulation of transport courses and a reduction in the number of critical conflict points, etc.

In the fourth and fifth stage of development of a tourist destination, parking policy is characterised by the search for new free and temporary (seasonal parking lots) parking capacities and the construction of garage and parking facilities, even though that rarely happens.

And, finally, two things can happen in the sixth stage of development – first, the number of arrivals of tourists and visitors starts to decrease precisely due to insufficient parking spaces, which directly affects the income from tourism and other sources. Secondly, after identifying the issue, cities take all necessary action to resolve the problems and they are prepared or are preparing for the seventh stage of development, which implies the application of the proper parking policies and the application of technologically modern solutions in the field of parking activities.

6. CONCLUSION

The logistics of a tourist destination is the optimisation of the flow of people, materials, information, energy, waste, knowledge and capital on a certain territory, with the purpose of offering a quality tourist product. The basic challenge of the logistics of a tourist destination is to optimally organise the logistic courses between the mentioned parts and within each of them.

Activities in a tourist destination imply the movement of people, transfer of goods, information and energy, waste treatment and transfer of knowledge and capital. The optimisation of the mentioned courses in a certain territory is the objective of the tourist destination's logistics. In this complex task, the logistics uses transport, all its capacities and organisational forms.

The transport process is a heterogeneous phenomenon considering the transport manner and transport means, length and duration, transport effect and the ratio of time in motion and parking. It is precisely the alteration between motion and parking of transport means in the territory of a tourist destination that is the characteristic of a transport process that burdens the existing infrastructure more than others.

Passenger courses in a destination continually go from the state of motion to a parked state, but the patterns according to which changes happen

differ depending on the type of passenger courses (tourists, local residents, transit passengers, excursionists). The diversity of motives that encourage them into motion also affect the selection of parking locations, parking duration, frequency of the need for parking in one day, week, etc., and the expected standard of the parking service and willingness of pay for it.

Transport management in tourist destinations thus becomes a priority problem not only for transport planners, but also for tourist employees, since transport, which has actually enabled the development of many tourist destinations appears more and more as a limiting factor in the quality of a tourist destination. It is realistic to expect that transport issues in tourist destinations will continue to increase and their efficient resolving requires new ideas and an interdisciplinary approach. This means that transport, tourist and other experts need to determine the rate of desirable growth in tourism and the accompanying transport in accordance with the principles of sustainable development.

Since people do wish to leave their cars behind even during holidays, traffic congestion, noise and pollution are all moved from the cities where they live to the tourist destinations where they go to have a rest from all of this. The understanding of transport issues, especially of parking issues in today's generally inherited cores of larger and smaller tourist destinations, shows that a problem exists. In the context of current and expected parking issues, it is necessary to turn attention to some of the actions that should be taken as soon as possible with the objective of the humanisation of tourist centres, but also the realisation of possibilities for more successful forming and structuring of tourist destinations in the future. The implementation of certain policies and measures could stop today's uncontrolled processes and relations in destinations that are attractive to tourists but the chaotic nature of which, unless stopped, could cause a non-functional, unattractive and unhealthy environment.

Therefore, parking plays a very significant part of mobility management. However, if one wants to expand the scope of the policies from mobility policies towards the politics of fast sustainable development of a tourist destination, parking and parking lots must be nested into urban planning policies and environmental protection.

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