



**INTERNATIONAL BALKAN UNIVERSITY**  
**FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES**

# **Trends In Economics, Finance And Management Journal**

**Vol. 2 Issue 2  
December 2020**

**International Balkan University**  
**Faculty of Economics and Administrative Sciences**

**Trends in Economics, Finance and Management**  
**Journal**

Vol. 2 Issue 2

December 2020

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Address of the Editorial office: International Balkan University - Skopje, Faculty of Economics and Administrative Sciences, Makedonsko - Kosovska Brigada Str. 1000, Skopje, Republic of North Macedonia - [www.ibu.edu.mk](http://www.ibu.edu.mk)

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## **INFLUENCER MARKETING THE CASE OF NORTH MACEDONIA**

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### **ABSTRACT**

It is believed that influencer marketing is making a huge impact on businesses. Whenever someone online attracts the attention of the consumer, he/she can be considered as an influencer. Whether the consumer is following a politician or an expert on Instagram, or picking recipes and cooking according to the Facebook chef page or is growing flowers as a Pinterest gardener, or is watching a video from the favorite YouTube vlogger, it is a matter of communicating with an influencer. Influencer is a person who is at the forefront of social trends. He/ she is able to create new ideas, concepts or content (innovators) or discovers trends before anyone else and is spreading them further into the social medium (disseminators). Influencers are Internet users with a lot of subscribers across different social networks, who have significant influence on their followers. In simple words, an influencer is a person who is able to impact on purchasing decisions of others by using social networks.

Companies are trying to use influencers in order to attract more consumers to see and buy their products or services. However, there are many intrigues related to this kind of marketing. Many experts and marketers believe that influencer marketing is not achieving the expected results and that it is only about tricks and frauds.

This paper attempts to explain the use and impact of influencer marketing on Macedonian consumers. Do they believe in influencers and do they buy according to influencers' recommendations. In order to achieve this goal and answer the questions, an electronic survey was conducted.

### **KEYWORDS**

Influencer marketing, social networks, Instagram, Facebook, YouTube, innovators, disseminators

### **JEL CLASSIFICATION CODES**

M31, M37

### **INTRODUCTION**

The rise of social media and especially the pandemic period that has started in the beginning of 2020, has opened up a new channel for companies to connect with consumers more directly and more originally. As media and technology have become more advanced, companies can choose from a range of options in outlets to market their products. These options have also led to the evolution of social media influencer marketing. There are people now, representing companies through branded content on personal

social media accounts, such as Instagram, Snapchat, Twitter, and YouTube. More than ever, consumers are looking to fellow consumers to inform their purchasing decisions. According to Forbes, influencer marketing can be defined as “a form of marketing in which focus is placed on specific key individuals rather than the target market as a whole” (Forbes.com).

However, the influencer marketing is not new. Consumers have seen celebrities endorsing brands on TV and other traditional ad formats. The “new” is that that marketing continues online, including also other influential and knowledgeable people. Nowadays, consumers can see celebrities talking about the products or services they are promoting on social media, as well as ordinary persons, like travel bloggers who discuss interesting destinations and travels by budget airlines, or mothers who post a new recipe on Facebook, or fashion stylist who pose a new denim line on Instagram. All of these are examples of influencer marketing and that is why it is defined as “the process of identifying, researching, engaging and supporting the people who create high-impact conversations with customers about your brand, products or services”. (Marketing craft, 2020).

Some marketers consider influencer marketing as an evolution of the powerful marketing strategy known as “word of mouth”. However, there are similarities, but also a big difference between these two terms. “Word of mouth” is when individuals talk about products, services, brands, outlets with persons they know, like their family, friends, colleagues, partners, neighbors. This kind of marketing was proven to be very effective coming from someone close who actually used the product or service. Even in the digital era, word of mouth remains a strong marketing force. Nielsen’s “Global Trust in Advertising Report” showed that some 83% of consumers trust recommendations from people they know. This is higher than ads on TV, for example, trusted by 63% of consumers.

With social media, however, personal interactions go beyond conversations among family, friends, or colleagues, but happen online. It has also expanded to include interactions not only with people we personally know but also with people we probably haven’t even met yet. Influencers are those magnetic personalities that people haven’t met and still are following them on Facebook, Twitter, Instagram, or any other social media platform, including blogs. They amplify the power of word of mouth using their social media connections.

The statistics below on a world scale, shows why influencer marketing is such a popular marketing tactics: (Digital Marketing Institute, 2020)

- 70% of Teens Trust Influencers More than Traditional Celebrities,
- 86% of Women Use Social Media for Purchasing Advice,
- 49% of Consumers Depend on Influencer Recommendations,
- 6 in 10 Teens Follow Advice from Influencers Over Celebrities,
- Influencer Marketing Campaigns Earn \$6.50 for Every Dollar Spent,
- Influencer Marketing Is the Fastest-Growing Online Customer-Acquisition Method,
- 57% of Fashion and Beauty Companies Engage in Influencer Marketing,
- Major Brands Plan to Increase Spend on Influencer Marketing,
- The Influencer Marketing Industry is Expected to Hit \$10bn by 2020,
- 74% of People Trust Social Networks to Guide Purchasing Decisions,
- Influencer Marketing has Surpassed Print Marketing,
- 40% of Customers Use Ad-Blocking Technology,
- Marketers spend \$25,000-\$50,000 on Influencer Marketing Campaigns,
- 40% of Twitter Users Made a Purchase Based on a Tweet,
- 67% of Marketers Promote Content with the Help of Influencers,
- Facebook Is the Most Influential Social Media Network,
- When it comes to millennials, only 1% of them trust advertisements. However, 33% of them trust blog reviews for their purchases.
- Around 40% of people reported that they purchased a product online after seeing it used by an influencer on YouTube, Instagram, or Twitter.
- 71% of influencers believe that it’s an honest and authentic voice that keeps their audience engaged

- 60% of Consumers Have Been Influenced by Social Media or Blog While Shopping at a Store and
- 71% of Marketers Believe Influencer Partnerships are Good for Business

## LITERATURE REVIEW

There are lot of definitions on influencer marketing. One of them is that “Social media influencers represent a new type of independent, third-party endorsers who shape an audience’s attitudes through blogs, tweets, and the use of other social media channels” (Fredberg, 2010). Through sites like Instagram, YouTube, Twitter, and Facebook, social media influencers create content promoting certain brands with the goal of obtaining a following and brand recognition. According to Fredberg, the success of social media influencers is vitally important to brands; therefore, technology has been developed to identify and track influencers’ relevance to a brand or organization. This technology tracks the number of hits on a blog, times a blog is shared, likes and comments, and followers. All of these points are pivotal aspects of a social media influencer’s success. Social media influencers promote brands through their personal lives, making them relatable to the average consumer. Where traditional marketing targeted mostly mass audiences, influencers have the unique ability to target niche audiences that have until now been unreachable (Ledbetter, 2016).

In terms of followers, influencers may be categorized as mega-influencers, macro-influencers, or micro-influencers, and working with each of these types has its benefits. According to Talkwaker, the three types of influencers are: (Talkwaker, 2020)

A) **The Celebs:** mega influencers with around 1 million plus followers, among whom are TV and movie actors, sports and music stars and social media masters,

B) **The Execs:** macro level influencers with between 10,000 to 1 million followers and here are journalists, bloggers, industry experts and other content creators,

C) **The Everyday:** micro level influencers with 500 to 10,000 followers and here are ordinary consumers who can work well for Influencer marketing. In literature, influencers with fewer than 1,000 followers are also called nano-influencers.

The celebrities are famous because of their background in the “real” world. They are called mega influencers, even though they do not always have a great influence on human’s behavior. Their reach is used to increase brand awareness. Just because a person can recognize a celebrity’s name, does not mean that he or she respects them enough to buy the products they recommend (De Veirman, et.al, 2017)

On the other extreme, nano-influencers do not have lot of followers. They usually are people with the most credibility in a particular neighborhood and their advertising looks like friendly advice, so they have the highest level of engagement.

**What are the most important aspects of influencers?** (Talkwaker, 2020)

- A) **Reach:** relates to the ability of influencer to deliver a message to a large number of people. This is simply how many potential people the influencer talks to, whether that’s followers or subscribers. This can be the readership of a publication, the audience of a TV host or the number of social followers someone has. But a great reach doesn’t always mean a great result. Reach is important but insufficient.
- B) **Engagement:** This is the opposite to reach. It is how much interaction the influencer gains from the audience. And it is becoming more important than reach when considering influencers. Engagement comes in two forms. Passive engagement is usually the bare minimum of what a reader can do; clicking a like or retweet button. It doesn’t mean they have actually fully absorbed the content message. While active engagement is when someone has taken the time to read the content and add to the conversation around it. These are the people who are generating ideas about the message and will more likely engage with it further. What type of engagement you receive depends on the audience?
- C) **Audience:** Who is the influencer talking to on a regular basis? Is it a wide audience that has a general interest in what is said, or a smaller, more specific group, who are focused on a niche

subject the influencer works in? This is the key to how far the message travels. A niche audience tends to be more connected within their industry and will help promote the content further.

- D) **Recognizability:** For companies, it's vital to consider the influencer's recognizability, especially within their market. Traditionally, it is believed that celebrities are more recognizable. And in a wider market, they probably are. But in a more niche market, an industry blogger or speaker may gain more recognition from their audience. The same can be said for younger markets. YouTube vloggers and the like could actually be more recognizable than celebrities, and therefore be more relevant.
- E) **Creativity:** There are two types of influencer, the creator (who innovates trends) and the disseminator (who adopts them). A creator will be followed for their creativity. Their audience will appreciate their originality, and interact with it in a more in-depth way. While a disseminator is someone that shares ideas, and it is expected their audience to simply do the same.
- F) **Contextual credibility:** the level of trust and authority given by the audience based on the influencer's perceived knowledge and expertise on a specific topic. A celebrity chef will have high credibility in recommending meals but low credibility in politics, for example. (Forbes, 2017)
- G) **Salesmanship:** the presence and communications style that gives the influencer the ability to understand and embrace a particular point of view. There are some people who seem to have an extraordinary power to convince people of their point of view. They have an ability to explain things in convincing ways, are clear with their messages and deliver their points of view with confidence.

## RESEARCH METHODOLOGY

For the purpose of this paper, two sources of data were used:

A) **Secondary sources:** data and information from relevant existing literature on influencer marketing, like journals, statistical data, reviews, e-books, published presentations, blogs, FB statuses and YouTube vloggers. Mainly online sources were used and the reason is obvious. Even though influencer marketing is not new term, lately it is becoming a hot topic for marketers, probably because it is powerful and related to the traditional advertising it is inexpensive and efficient. Influencer marketing is happening online and targets consumers who are using Internet. Secondary sources provide a lot of data from qualitative and quantitative research, historical reviews and method of comparisons.

B) **Primary data:** the data necessary to develop the final questionnaire were divided in two sections: a) demographic data (gender, age, working status) and b) psychographic data on person's opinions, beliefs, attitudes, and preferences collected through open and closed questions. The questionnaire was randomly distributed to 125 individuals, in the period between 15th of September and 15th of October, 2020. Results were collected by e-mail and Facebook.

## ANALYSIS AND RESULTS

For the purpose of this paper, the questionnaire with standardized questions was disseminated through Internet platforms. The survey was conducted in the period between 15th of September and 15th of October, 2020. Out of 125 respondents, 93 (74%) fully answered the questionnaire and only their answers are taken into account for compiling the statistical data and results. The online survey was used for data collection because of the nature of the questions, as well as the characteristics of collection – very fast and easy way to get responses from a large number of respondents.

The first part of the questionnaire refers to the demographic characteristics of the respondents. Questions were asked about their age, gender and employment status.

According to age, 13 respondents (14%) aged up to 17 years, 22 respondents (24%) aged 18 to 20 years, 28 respondents (30%) aged 21 to 29 years, 11 respondents (12%) aged 30 to 35 years, 19



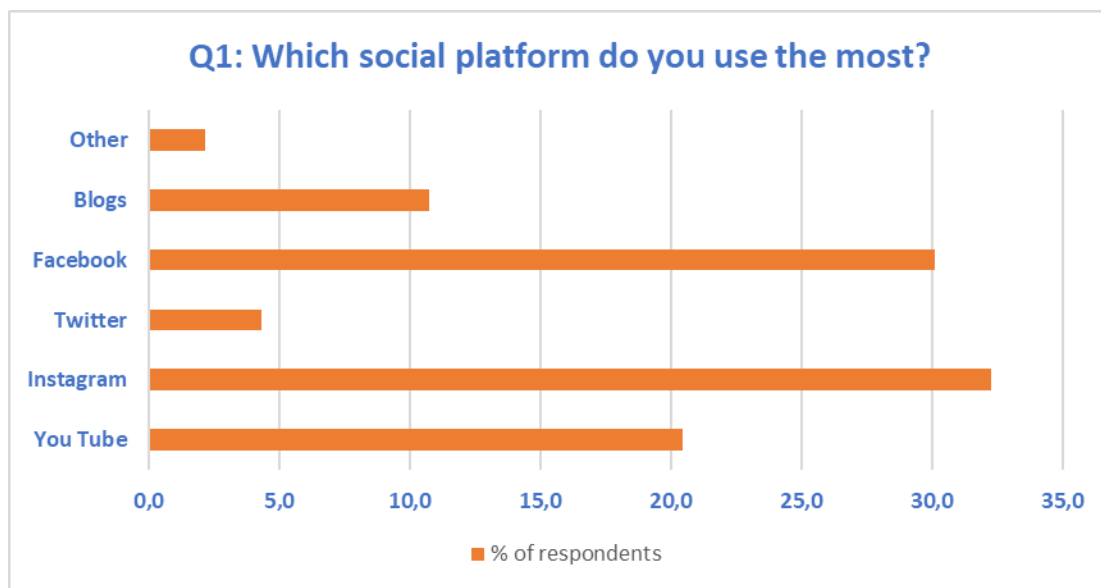
respondents (20%) aged over 36 years participated in the survey. The respondents between the ages of 21-29 have the largest participation in the survey. This is a good indicator of the reliability and accountability of the data given that this age group uses social networks and the Internet the most.

By gender, the participation of male respondents is 34%, and of female respondents is 66%.

According to the working status, 41 respondents are employed, 9 are unemployed, 32 students and 8 who did not comment on this issue, participated in the survey. Students have the largest share in the survey.

The second, essential part of the research refers to the collection of psychographic data from the respondents, regarding their opinions, attitudes, beliefs regarding the knowledge, monitoring (following) and purchase of products from social influencers. This part of the questionnaire contains 6 questions. The questions, their answers and analytics are given below:

**GRAPH 1: Which social network do you use the most?**

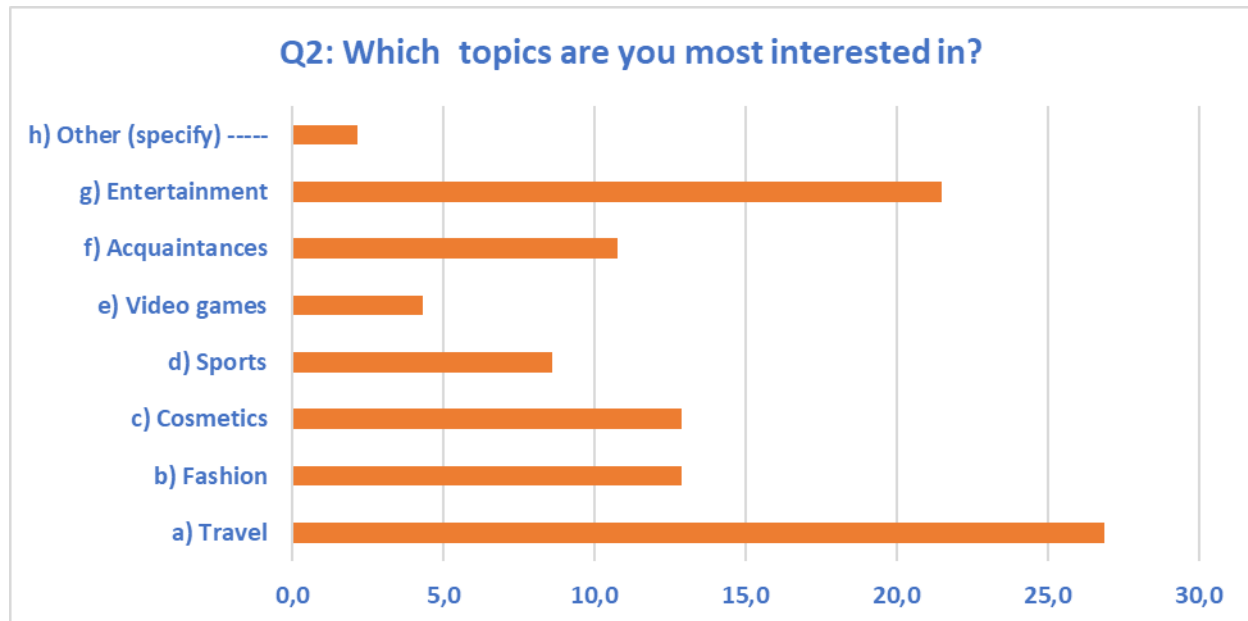


Source: Own research of the authors

According to the answers to this question, almost all respondents use a social platform on the Internet. Most respondents use Facebook (30%) and Instagram (32%) or a combined 62%. The other respondents use Twitter, Blogs, You Tube, but also Snapchat, Pinterest and other networks.

Respondents on social networks mostly follow topics in the field of travel (27%) and entertainment (22%). After them, important topics for which there is interest among the respondents are fashion (13%) and cosmetics (13%), which is understandable considering that most respondents are female. The least interest exists for video games (4%). This data can help companies to decide in which areas to use social influencers. Data, also, can help companies to know exactly where to focus their marketing activities - marketing programs and promotions.

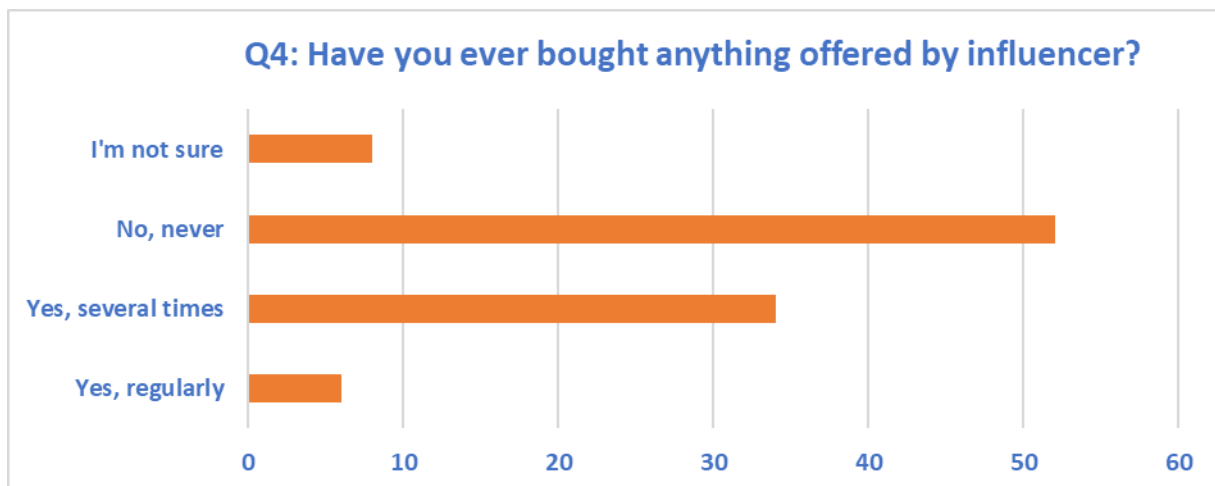
**GRAPH 2: Which topics are you most interested on social networks?**



Source: Own research of the authors

To the third question “Do you follow a person (influencer) on social networks who talks and knows the best about the topic of your interest?”, all respondents answered in the affirmative way, i.e. they like to follow the people who talk the most about certain topic or have the greatest knowledge about it. Having in mind that people use social networks, this question is related to the first one, it is logical that they follow the topics they are most interested in. Therefore, this and the following question is asked to all respondents.

**GRAPH 3: Have you ever bought anything based on the recommendations of a social influencer?**



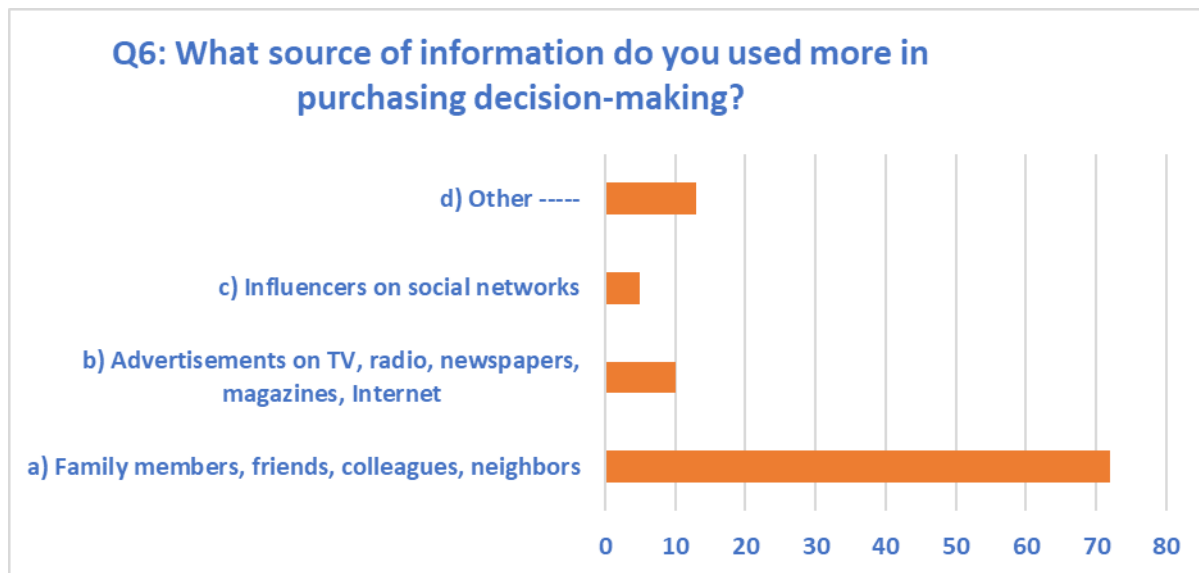
Source: Own research of the authors

According to the answers to this question, most respondents (52%) have never bought products or services due to promotions or recommendations by influencers. Only 6% of respondents bought a product or service influenced by a social influencer. This shows that in Macedonia, consumers follow what is

happening, which is a trend on social networks, they follow the topics they are interested in, but do not buy under the influence of influencers.

On the fifth question: “If you answered “Yes, regularly” or “Yes, several times” to the previous question, please answer this question. Are you satisfied with the purchase under the influence of social influencers?”, only 23% of respondents are satisfied with the purchase of products and services influenced by social influencers. 39% of the respondents are not satisfied, i.e. what they bought online under the influence of influencers did not meet their expectations. And 38% answered this question with “I do not know”.

**GRAPH 4: When making a decision to buy products or services, which source of recommendations do you trust the most?**



Source: Own research of the authors

According to the answers to this question, most respondents (72%) consult with their closest friends, relatives, colleagues to buy products and services. This data shows how powerful “Word of mouth” marketing is still in Macedonia. Companies need to focus on this type of marketing the most. Influencers are watched and followed, they are interesting, they are fun, but they do not have the power, yet, to influence the purchasing decisions of the consumers.

This research is not representative of the entire population in Macedonia. The research was done in order to get an idea of whether the young population has any interest in buying products or services online, under the influence of social influencers.

## CONCLUSION

Seth Godin, the guru of Marketing is right when he says that “People don’t buy goods and services. They buy relations, stories and magic”. This logic goes in favor of using influencer marketing.

Influencer marketing is currently the most popular marketing technique that possesses an incredible ability to connect with highly relevant audiences as well as create authentic content. It has been found that influencer marketing can generate eleven times higher ROI than any other digital marketing technique. The world data show that consumers believe to influencers and they buy products and services they

promote and advertise. Research shows that influencer marketing is increasingly replacing traditional marketing. It represents the word of the moth, which is the most powerful marketing tactic, now transmitted online.

However, the research conducted in this paper, shows that Macedonian consumers follow and are interested in stories of social influencers, but they don't make buying decisions based on them. Only 6% of respondents replied that they have bought products or services based on influencer's impact. This is a very small percentage. The most of respondents based their purchasing decisions on sources that come from their families, friends, colleagues or closest ones.

This research was done with a small sample of the population and is not representative of all consumers in Macedonia. Its aim was to give an idea of whether the young population has any interest in buying products or services online, under the influence of social influencers. It can be a starting base and encouragement for more research in future.

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## APPENDIX

### QUESTIONNAIRE

I would like kindly to ask you to complete this electronic Questionnaire that refers to the usage of recommendations of social influencers in your purchasing decision-making process. The questionnaire is anonymous. It is composed of two parts, demographic data and psychographic data. The second part of the questionnaire refers to your views, opinions, beliefs about buying products and services from social influencers. The questionnaire will be used for research purposes only.

**Thank you for your time!**

#### I PART

1. Please state your age: -----
2. Please mark with "X" your gender: Male ----- Female -----
3. Please circle your employment status:
  - a) Employed
  - b) Unemployed
  - c) Student
  - d) Other (specify) -----

#### II PART

- 1)

	<b>Which social network do you use the most?</b>
a)	You Tube
b)	Instagram
c)	Twitter
d)	Facebook
e)	Blogs
f)	Other (specify which) -----
- 2) **Which topics are you most interested on social networks?**
  - a) Travel
  - b) Fashion
  - c) Cosmetics
  - d) Sports
  - e) Video games
  - f) Acquaintances
  - g) Entertainment
  - h) Other (specify) -----
- 3) **Do you follow a person (influencer) on social networks who talks and knows the best about the topic of your interest?**
  - a) Yes
  - b) No
- 4) **Have you ever bought anything based on the recommendations of a social influencer?**
  - a) Yes, regularly
  - b) Yes, several times

- c) No, never
- d) I'm not sure

**5) If you answered “Yes, regularly” or “Yes, several times” to the previous question, please answer this question. Are you satisfied with the purchase under the influence of social influencers?**

- a) Yes
- b) No
- c) I do not know

**6) When making a decision to buy products or services, which source of recommendations do you trust the most?**

- a) Family members, friends, colleagues, neighbors
- b) Advertisements on TV, radio, newspapers, magazines, Internet
- c) Influencers on social networks
- d) Other -----

# EFFECTS OF TAX CHANGE REGIME ON THE ECONOMIC GROWTH OF THE REPUBLIC OF NORTH MACEDONIA

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## ABSTRACT

This paper tries to determine the impact of the change of tax regime in Republic of Macedonia, where from being a progressive tax rate until 2006 it became flat tax for the time period 2007 - 2017. In order to analyze such effects on economic growth of the Republic of North Macedonia for the time period 2000 – 2017, quarterly time series of real GDP growth rate, Direct tax divided into Personal Income Tax and Corporate Income Tax and a dummy variable regarding the time period of the change has been employed. One of the main justifications for changing the tax regime from progressive to flat, was that this change will reflect in the improvement of the employment, thus will reduce the unemployment rate. Moreover, the main objective is to investigate how the tax regime change has affected the economic growth in Republic of Macedonia, analyzing the two different time periods, first when was applicable progressive tax rate from 2000 – 2006, and then the second time period 2007-2017, when was applicable flat tax rate, by applying the VAR model and by creating a dummy variable indicating the period  $t > 2007q1$ . The results imply that the effect of the change of the tax regime is insignificant and inefficient for the case of the Republic of North Macedonia.

## KEYWORDS

flat tax, progressive tax, growth, VAR.

## JEL classification codes

C32, E62, E64.

## 1. INTRODUCTION

It is important to state that the structure and finance of a tax changes are very crucial for achieving economic growth. Moreover, it is true that tax rate cuts may encourage individuals to work, save, and invest, but on the other hand if the tax cuts are not financed by an immediate expenditure cuts, it is likely that they will result in increased budget deficit, causing in the long-run to reduce saving as well as the rise of interest rates. Further, also it is suggested that net impact on growth is uncertain, recent evidence suggest that it is either small or negative. Even though broaden measures can eliminate the effect of tax rate cuts on budget deficits, on the other hand they will also reduce the impact on labor supply, saving, and investment and therefore will also reduce the direct impact on output. Further, it will reallocate resources across sectors that have highest economic usage, by resulting at increased efficiency and rise of size of economy. Finally, the effects of tax changes on the size of the economy are an empirical question although most tax changes alter many features of the code simultaneously. Indeed, it is

very obvious the difficulty to isolate the effects of tax changes relative to other changes in policy and the economy.

Thus, the main aim of this paper is to determine whether the tax regime change was effective and completed the main objectives for its change.

Recently there has been going a debate among scholars emphasizing also the difficulties of interpreting the evidence, reaching strongly different conclusions and interpretations of the literature. Since evidence presented in those studies are found as relatively unconvincing of the view that tax cuts promote or not growth, in this case the problem indicates that during the absence of clearly exogenous shifts in tax policy, it becomes very difficult to estimate clear conclusions.

## 2. LITERATURE REVIEW

There exist several empirical analysis confirming that deficit-financed tax cuts are poorly stimulate long-term growth, while tax cuts financed by expenditure cuts are likely to have positive impact on output.

There are many studies implying that the impact of tax reform on the changing sector's allocation of resources is from a crucial importance, starting from Harberger's (1962) classic analysis of the corporate tax as well as other scholars such as Fullerton and Henderson (1987), Gravelle and Kotlikoff (1989), and Diamond and Zodrow (2008).

Moreover, findings from Rogers (1997) study indicate that a revenue-neutral shift to a flat-rate income tax, raise the long-run size of output by 1.8 - 3.8 percent, depending on assumptions about behavioral elasticity. On the contrary, Auerbach et al. (1997) find that moving to the same flat-rate income tax would reduce the size of the economy by three percent in the long run. Further, in their study Altig et al. (2001) used similar model in order to enhance a more extreme policy reform—a revenue-neutral switch to a flat income tax—but with no personal deductions or exemptions, wherein this case they found that an immediate rise of output by 4.5 percent, and by another one percent over the next coming 15 years, but hurting poor in coming generations. Moreover, their study indicated two interesting results: firstly, one-time effect tax reform can increase the size of the economy but it does not affect the long-run growth rate, thus one-time effect of tax reform on the size of the economy dominates the effect on the overall growth rate. Secondly, presence of trade-off between growth and progressivity in the model it is seen very often.

Moreover, findings of Mendoza et al. (1997); Garrison and Lee (1992) suggest no tax effects on growth in developed countries. Further, Padovano and Galli (2001) suggest that 10 percentage point reduction in marginal tax rates will rise the growth rate by 0.11 percentage points in OECD countries. On the other hand, Engen and Skinner (1992) paper findings indicate significant effects of taxes on growth in a sample of 107 countries, underlying that the tax effects are tiny and insignificant when estimated only on developed countries. Further, Piketty, Saez, and Stantcheva (2011) investigated 18 OECD countries regarding the effects of tax rates and economic growth regarding 1960- 2010 time-period. Indeed, findings indicate no evidence of a nexus between growth in real GDP per capita and reduction of marginal rate for the analyzed time period 1960-2010.

It is important to mention that changes in revenues level and changes in tax system structure, both can influence the economic activity, however not all tax changes have equivalent, or even positive, effects on long-run economic growth. Moreover, very often it is mentioned the argument that income tax cuts raise growth so that sometimes it is taken as gospel. On the contrary, theory evidence and study findings tell a completely different and complicated story. Indeed, tax cuts can raise economic growth by improving incentives to work, save and invest, but on the other hand create income effects that reduce the need to engage in productive economic activity. Further, tax cuts as a stand-alone policy thus, in the case when are not accompanied by expenditure cuts, will increase the government budget deficit. Such increase in the budget deficit will reduce savings and will raise interest rates, which on the other side will cause negative effects on investment. Therefore, it is crucial to know that the net effect of the tax cuts on



economic growth is uncertain and depends on structure of the tax cut itself as well as on timing and structure of its financing.

### 3. RESEARCH METHODOLOGY AND FINDINGS

In order to determine the impact of the tax change regime in the Republic of North Macedonia, Vector Autoregression (VAR) model has been used, by also applying a dummy variable indicating the period  $t > 2007q1$ . Furthermore, by employing the VAR we will check the impact of the Personal Income tax and Corporate tax how was before and after 2007, that indicates the year of the tax change regime. Moreover, we are going to measure these by creating a dummy variable indicating the period  $t > 2007q1$ , thus we will try to analyze whether this rate change was effective and significant. The general equation is set as following:

$$\ln GDP_R = \beta_0 + \beta_1 \ln PIT + \beta_2 \ln CT + \beta_3 d + \varepsilon \quad (1)$$

where:

GDP<sub>R</sub> – rate of GDP growth  
 PIT – personal income tax  
 CT – corporate income tax  
 d – dummy variable  
 $\varepsilon$  – error term

In order to start testing the effects of the independent variables at dependent variable in the regression model, the following table presents the results of the optimal lag length based on the following information criteria: AIC, SBIC, HQIC and FEC criterion.

Table 1. Determination of the lag structure

Lag	LR	FPE	AIC	HQIC	SBIC
0		3.3e+13	36.8168	36.8308	36.8512
1	268.3	8.4e+12	35.4322	35.4741	35.5355
2	51.466	6.8e+12	35.201	35.2708	35.3732
3	48.329	5.4e+12	34.9865	35.0842	35.2275*
4	16.847*	5.1e+12*	34.9395*	35.065*	35.2493

Source: author's calculations.

As can be seen in the table 1, the optimal lag length according to the AIC and HQIC is four lags, which imply the selection of this lag length. Moreover, the SBIC imply the lag length to be three, but since literature evidence imply AIC as better criteria for using in the model of quarterly time series, therefore, lag length on this model is set to be as four.

Next, Vector Autoregression is applied in order to determine the effect of the Personal Income tax and Corporate Income tax in the two separated tax regime: when progressive tax is applied (2000q1-2006q4) and when flat tax is applied (2007q1 – 2017q4).

Moreover, the following table represents the results of VAR, where we have estimated the effects of the tax regime change of the personal income tax and corporate income tax on the economic growth in the Republic of North Macedonia. In the specification of the model,  $\ln GDP_R$  (real GDP) is considered as

dependent variable and the results show that statistically significant are the changes in the first, second and third time lag of real GDP,  $\ln\text{PIT}$  (personal income tax) shows positive and significant for the first, second and third lag and positive and insignificant during the fourth lag. The sign of relationship with the  $\ln\text{CT}$  (corporate tax) is negative during first, second and fourth lag, however not statistically significant while with the dummy variable (d) has positive and insignificant during the first two lags and negative and insignificant during the third and fourth lag. Such results imply that the change of tax regime did not have significant results on real GDP in the Republic of North Macedonia, even taking into consideration the results for the four lags.

Table 2. Empirical results of the VAR model

Variables	Coefficient	Standard error	z - value	P> z
<b>Dependent variable - <math>\ln\text{GDPR}</math></b>				
L1. $\Delta(\ln\text{GDPR})$	-.7234185	.1251484	-5.78	0.000
L2. $\Delta(\ln\text{GDPR})$	-.6828052	.1487317	-4.59	0.000
L3. $\Delta(\ln\text{GDPR})$	-.5853651	.1421242	-4.12	0.000
L4. $\Delta(\ln\text{GDPR})$	.1892458	.1434211	1.32	0.187
L1. $\Delta(\ln\text{PIT})$	.0867105	.03816	2.27	0.023
L2. $\Delta(\ln\text{PIT})$	.0957253	.0381867	2.51	0.012
L3. $\Delta(\ln\text{PIT})$	.0663089	.0357	1.86	0.063
L4. $\Delta(\ln\text{PIT})$	.0263951	.0331086	0.80	0.425
L1. $\Delta(\ln\text{CT})$	-.0041898	.0138066	-0.30	0.762
L2. $\Delta(\ln\text{CT})$	-.0053241	.0136557	-0.39	0.697
L3. $\Delta(\ln\text{CT})$	.0147334	.0142501	1.03	0.301
L4. $\Delta(\ln\text{CT})$	-.0102096	.0142501	-0.80	0.425
L1. $\Delta(d)$	.0302321	.0364649	0.83	0.407
L2. $\Delta(d)$	.0441357	.051094	0.86	0.388
L3. $\Delta(d)$	-.0190223	.0508208	-0.37	0.708
L4. $\Delta(d)$	-.0565615	.0370812	-1.53	0.127

Source: author's calculations.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

This paper analyses the effect of the change regime of tax system from progressive to flat rate, where it is employed a VAR analysis in order to see the impact of the Personal Income tax and Corporate tax how was before and after 2007, when this change happened. Moreover, we are going to measure these by creating a dummy variable indicating the period  $t > 2007q1$ , thus will try to analyze whether this rate change was effective and significant.

The results show that the dummy variable (d) has positive and insignificant during the first two lags and negative and insignificant during the third and fourth lag. Such results imply that the change of tax regime did not have significant results on real GDP in Macedonia. Based on such results, several conclusions are mention below:

- companies that “save” from lower taxes on do not have intense activities based on the local accumulation, also based on limitations of the market (as main economic factor) but above all also because of non-economic factors group (political - legal) from dysfunctional judiciary, high corruption,

lack of institutional capacity for guaranteed capital and property, all these causing the discharge or transfer of local accumulation in foreign markets.

- “savings” from lower taxes do not open new jobs, because the labor market is not functional enough to allocate properly the potential and resources and it is facing yet a high cost work force as a result of high contributions payments (compared with Kosovo, Albania, Montenegro or Serbia).
- foreign investors do not calculate the lowest taxes also due to the 10-year exemption from them, in cases when investments can be done in free economic zones.
- tax rates are only one element of tax bases (tax incidence), while the tax base is another element, equally important to the first one, that also increased as well.
- “pre-fiscal costs” are a significant burden for companies, from the execution of transactions until various taxes.

*Moreover, under such circumstances, the policymakers in Macedonia should reconsider that in terms of insignificant economic impact, probably to be respected and considered a great need for a pronounced tendency of social equality and the need for contributing for bringing back the middle class and diminishing the high level of income inequality among rich and poor in Republic of North Macedonia. Besides this, another consideration should be taken regarding the inequality of the usage of public goods and services as well as inequality in allocation of governmental support.*

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## **RISK MANAGEMENT BANKING STRATEGIES IN THE INFORMATION AGE**

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### **ABSTRACT**

The importance of the issue that is subject of this research stems out of the significance and relevance of the banking system stability, as a primary economic factor that is particularly apparent in times of financial crises. One of the key reasons for the serious difficulties and the severe financial crisis in which the financial institutions find themselves, is the inappropriate risk management in the banking operations. The increasing financial liberalization and the inventiveness in the contemporary world influence the rising offer of new banking products and services that carry intricate risks with them.

The technology increasingly has, and shall continue to have, a key role in the risk management. In order to be able to adapt to the new global standards and regulations, banks would have to focus their attention towards reduction of transaction costs and to have prudent risk management. This means necessity to use the latest information techniques and technologies in the banking operations that will contribute towards offering new products and services, in higher quantity and at competitive prices.

The implementation of the Basel standards also refers to the need for continuous improvement of the methods and strategies for measuring and strengthening of the risk management processes in the banking operations. Namely, in order to respond to the increasingly complex banking system to the need of international harmonization of the banking regulation and the need to strengthen the resilience of the banks towards financial distresses, the Basel Committee on Banking Supervision (BCBS) continuously revise the Basel standards introduced back in 1988. The long-term trends in the banking sector impose the need to use new, stricter methodologies for quantitative and qualitative risk measurement and management, including the need for development of new techniques that will enable their successful implementation. The reoccurrence of the financial crisis only confirms the fact that there is still room for further improvement of the risk management methodologies that were used.

In this paper, special attention is paid to identifying methods and proactive strategic approaches that banks should adopt in order to build a strong team and efficient risk management processes in the information age. The rapid development of e-banking brings about benefits, but also risks. Risks in e-banking should be timely identified, controlled and properly managed by banking institutions. As it shown in this paper the technological complexity of the activities related to e-banking, as well as their rapid development particularly affect the intensification of strategic, operational and reputational risk. Analytic and field research was used for preparation of this paper. Additionally, analysis and synthesis methods have been applied. Internet was used as a major tool to approach data and literature.

### **KEYWORDS**

risk management, banking system, information and communications technology

### **JEL CLASSIFICATION CODES**

G210, G32, O33

## **1. INTRODUCTION**

The continuous process of technological innovations and the globalization of the business operations is increasingly encouraging mutual networking between banks, companies and individuals. The speed, security and level of automatization in the execution of the financial transactions are of crucial importance today. The money is no longer the primary focus in the banking operations, but the focus is shifting towards successful management with the banks' assets and increased client trust. The banks that will not be able to timely apply the new technology due to high initial costs or technical issues risk losing the clients to those that penetrate the market first. In that regard, it is necessary for each bank to make timely and adequate strategic assessment, risk analysis and security review during the introduction of e-banking.

The beginning of e-banking dates back in the early 1970s. Just a decade ago the online banking was seen as a privilege for the younger population. Today, the use of e-banking spreads very fast and has upward trend. According to research carried out by Deutsche Bank (2011), the migration towards electronic, online banking is expected to reach up to 60% of the EU population by 2020. According to a Gallup study (2014/15), nearly six in 10 banking customers (56%) prefer more of a digital than a personal relationship with their bank. In the recent study of the European Commission (2020), Internet use continued to increase with 85% of Europeans surfing the internet at least once per week (up from 75% in 2014). Internet banking as more popular is being used by 66% of internet users in 2019. The continuous process of technological innovations, mainly the competition between the banks, the raise of new players on the market, the wide range of new banking products and services are the main reasons for the mass-scale migration. Today, the widespread of corona virus and economies' lockdown throughout the world additionally contribute to exacerbation of this process. The electronic or online banking combines the information and transaction services. It might not result in creation of new risks but it significantly intensifies and modifies some of the traditional risks. On one hand there are risks related to accuracy of information and their correct distribution and perception; and on the other hand there are risks related to automatization, security and privacy of financial transactions. Hence the need, which is also the objective of this paper, to identify the methods and strategies that are needed in order to strengthen the processes related to risk management in the banking systems in the information age.

The global financial crisis in 2008 that happened primarily as a result of decline of the real estate prices includes, among other reasons, the insufficient attention towards appropriate measurement and management of banking risks. Regardless of the fact that many banks in the United States and Europe operate on the basis of a number of documented policies and procedures, the need to use more modern methods for measuring and managing risks resulted in a situation where the banks faced huge burdens due to bad loans and lack of liquidity in their operations. The long-term trends in the banking sector more and more indicate the need to apply new, more rigorous methodologies for qualitative and quantitative measurement and management of risks, including the need for development of new methods, techniques and strategies that will enable their successful implementation. The reoccurrence of the financial crises only confirms that there is still a room for further improvement of the methodologies currently used for risk management. The banks must be active involved in such improvement.

## **2. THE INFORMATION COMMUNICATION TECHNOLOGY (ICT) IMPACT ON THE BANKING RISK MANAGEMENT**

The globalization of the business operations and the ICT development today encourages increasing networking between companies and individuals who do not know each other. The speed, reliability and the level of automation in the execution of the financial transactions is of crucial importance. In this regard, the money is no longer the main focus in banking, but it is the successful management of their assets and increased trust of the clients. As author Wills pointed out, the trust in the



bank is difficult to gain and result of many years of work, but can be lost very quickly and easily. The banks must be prepared to engage additional forces in order to invoke interest in the clients to request and use other, additional banking services (Wills, 1987). In that regard, the banks that will not apply the e-banking technology in time (due to high initial costs or technical issues) risk to lose clients to those who will enter the market first. Therefore, it is necessary for each bank to start making timely and adequate strategic assessment, risk analysis and review of the security when introducing e-banking application.

The continuous process of technological innovations, the increased competition between banks and the emergence of new players (institutions) in the market create a wide range of new banking products and services. In addition to financial and investment risks, the banks also face many other risks in an e-banking environment. The e-banking, which combines the information and transaction services, may not lead to new risks, but significantly intensifies and modifies some of the traditional risks related to banking operations. On one hand, there are risks related to accuracy of information and their proper distribution and perception; and on the other hand there are risks pertaining to automation, security and privacy of financial transactions. More specifically, the automatic processing of transactions (known as straight-through processing or STP) made possible by e-banking, reduces the possibilities for manual errors (common for manual processing of data) but they also increase the need for organizational, structural and operational adaptability. Seen from a wider perspective, the risks the banks face in e-banking which impact their entire risk portfolio could be classified as follows: transactional or operational risks (especially security and legal risk), credit, market and liquidity risk, regulatory risk, strategic (investment) risk and reputational risk. The practice of many banks who are pioneers in e-banking confirms that effective management of these risks (especially the operational, strategic and reputational risk), with a purpose of further development of e-banking, will enable to use the benefits from the online banking on longer term (UNCTAD, 2007-2008).

Compared to other risks, the strategic risk, as a risk that by nature has a wider range, is one of the most significant risks in e-banking. The strategic decisions that need to be adopted by the senior management bodies in the bank can have the largest implications on all other risks. In a situation of fast technology changes, high competition between banks and raise of new players on the financial markets, a strategy that is badly planned or implemented could expose the bank to significant risk. In order to respond to the demand for e-banking, the banks should primarily develop efficient strategy (which includes cost-benefit analysis, analysis of the available organizational structure, resources, trained staff, etc.) on the use of internet channels and offer of e-products and services to their clients. The banks will be able to respond to the strategic risk only if they have a clear strategy in place, one that will consider all e-banking effects and will be communicated to all relevant business units, with clear business plan and with effective means for control of its implementation.

There are several operational risks that are amplified in an e-banking environment. As a result of use of a complex technology, the following operational risks are intensified:

- The risk of systems and transactions security (including security of data and the identification security). The threats can be caused both from inside and outside the system and they could have serious financial, legal and reputational implications for the banks. There are three common categories of reasons why there could be a disruption in the system security: disrupted security of the system with serious criminal objective, violated security caused by common, accidental hackers and disruptions caused by omissions in the creation of the actual system;
- Risk in maintaining continuous internet (vs. viruses, hackers and similar hazardous events) as a mean required for financial transactions. The full benefits from the e-banking services can be achieved only with 24/7 availability of those services;
- Outsourcing risks. In order to save costs or due to lack of expertise, the banks often use third-party services, especially when it comes to e-banking. The complex agreements between the bank and the outsourced service providers can create significant material risks for the bank because of the potential reduction of its control over those business activities;

- Risk due to lack of sufficient capacity for meeting the needs of the e-banking products. The inappropriate assessment of the potential e-bank product and service users could result in significant financial and reputational damages for the bank because of a system that has been inappropriately configured or tested;
- Legal risk due to inappropriate protection of the client privacy. The banks that will fail to protect the privacy of their clients could easily face regulatory sanctions.
- Risk of money laundering due to reduction of direct face-to-face contacts with the clients. In an e-banking environment, it is almost impossible for the banks to identify whether particular transaction has been carried out by the actual owner and from which location.

The security of information in the new information economy emphasizes even more the importance of trust and building of that trust in the everyday banking activities. The increasing dependency of the banks from information technology and its wide use in the management of financial operations makes the process of risk management caused by inappropriate information systems especially complex. This process includes economic assessment of information systems that bear risks (especially from security aspect) and their comparison against the investments needed for protection. This comes before the need of finding potential solutions. Since the financial institutions usually use similar software programs, there is a danger of systemic risk. Namely, the increasing involvement of many new (non-financial) companies on the financial market can only make the control of links between different stakeholders and the evaluation of risks they are exposed to more difficult (Sokolov, 2007). Hence, when it comes to use of efficient risk management system from perspective of information security (both from aspect of accuracy and security of information and the aspect of security of actual transaction), the involvement of the Government, financial supervisors and regulators is required, who will implement measures for setting minimum standards for information security. They need to help the banks and other financial institutions in the development of methodologies and implementation of risk management policies, in order to ensure security of the financial information.

The reputational risk is also one of the risks that intensify when the banks are using Internet. The reputational risk can especially increase when the system or the e-banking products and services do not work as expected, when there is no relevant and quick communication network, when the system security is compromised, when the clients have problems with products and services they use, when there are errors or abuses by external third parties, etc. The banks can significantly reduce the reputational risk only if they use efficient processes of dealing with unwanted events caused by the Internet, as well as with timely and comprehensive education of the clients on protection from security risks – in other words, ensuring they comply with the safety recommendations.

In order to respond to the challenge related to managing risks stemming out of the features of the e-banking and the new technology, it is necessary to review or expand the existing principles in risk management, which will remain applicable in e-banking environment. In that regard, the BCBS<sup>1</sup>, in order to assist the regulators and banks in defining their policies and procedures for risk control in the newly-established environment, identified a total of fourteen e-banking risk management principles. These principles are not absolute requirements – on the contrary, they are just guidelines that can help the banks mitigate the e-banking related risks. There is no unified approach in managing the e-banking risks. The technology solutions and standards pertaining to e-banking should be defined by the national regulatory bodies in accordance with the national needs and technology development in the national economy. The banks will afterwards start developing, adapt and apply processes of e-banking risk management, depending on the regulatory requirements and policies established by the national supervisory authorities, in accordance with the risk profile, operational structure and their corporate management structure.

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<sup>1</sup> The Basel Committee for Banking Supervision has been implementing research activities on the impact the e-banking and e-money have on the risk management process since 1998. It established the Electronic Banking Group in 1999 for this purpose. This Group includes bank supervisors and bank representatives from many countries in the world and published a Report in July 2003 on the Risk Management Principles in the Electronic Banking.



The core principles for e-banking risk management proposed by the Basel Committee for Banking Supervision (BCBS, 2003) can be clustered in three categories that mutually overlap:

**a) Continuous supervision by senior management bodies and boards**

Since the senior management bodies of the bank are responsible for development of the business strategy and for supervision and control of the management that manages the risks, they are expected to adopt clear and documented strategic decisions on whether the bank will offer e-banking services. In that regard, they need to implement measures for continuous updating and correcting of the existing risk management policies and procedures for the purpose of integrating the new risk management processes in the e-banking environment, that is, to cover the current and future e-banking activities planned. Without strategic analysis and analysis of revenues/expenditures, the bank will be exposed to cost underestimation or overestimation of revenue risk, in relation to the decision for introduction of e-banking. It is necessary to do analysis of all risks that could stem out of the proposed e-banking activities and also to identify the relevant processes for their reduction to minimum and continuous monitoring. The highest management bodies in the bank need to be sure that they have the sufficient professional and qualified staff that will be able to respond to the technical character and the complex applications related to e-banking. The increased reputational risk that could be the result of implementation of e-banking requires vigilant monitoring of the operating systems, the needs of the clients and timely reporting to higher bodies in case of incident events.

The Internet is an open and global network available to everyone. The differences that exist between the countries in terms of legislation for issuing permits for work of banks, the requirements for supervision and client protection increase the need to strengthen the control over the banking security, especially in terms of development and maintenance of control of the infrastructure security. Namely, in order to reduce the legal and regulatory risks, it is necessary to introduce comprehensive processes for control of the security and risk management in e-banking environment.

**b) Control of security in e-banking environment.**

The senior management bodies of the bank are responsible for introduction of processes relevant for e-banking security control. These processes need to include use of relevant procedures for authorization, access control, identity verification measures, limitation of activities of internal or external users, adequate infrastructure for security, reduction of risks from externalization of the banking activities (involvement of partners, outsourcing, etc.), measures for checking authenticity of transaction data, documentation and information. The ensuring of continuous control of the e-banking security aims to reduce the future internal or external threats to the e-banking security. For example, if the bank does not do adequate identification and protection of clients, unauthorized persons can easily obtain access to the e-banking accounts, find confidential information or perpetrate other criminal acts. These frauds could have negative impacts on the reputation of the bank and lead towards greater financial losses. Essentially, the permanent control of the e-banking security should enable full protection of the clients in terms of publishing of information in case of their business use as well as protection of their personal data.

In e-banking environment, the bank should be able to provide documentation on the e-banking transactions. More specifically, in a highly automatic environment, where all transactions are electronic, the banks face the challenge of ensuring effective and independent internal controls, especially for the key e-banking activities and applications. The internal controls can be significantly weakened in one bank if there are no clearly documented traces of all e-banking activities. In that regard, it is necessary to have clearly documented audit notes on all e-banking transactions.

**c) Managing legal and reputational risk in e-banking.**

In order to reduce the legal and reputational risk to a minimum, the bank that deals with e-banking in the country and abroad must adapt the manner in which it publishes information, the

clients' privacy protection and to adapt the website in accordance with the legal regulatory rules applicable in the country where the bank plans to offer such services. Furthermore, in order to retain its legal and reputational risk as well as the operational risk, the bank must be able to offer e-banking for all end users and those services must be available in all circumstances.

The e-banking use is increasingly emphasizing the importance of banks being ready to meet the high demands of the clients, especially in terms of fast processing of transactions and the 24/7 availability of the electronic service. Adequacy analysis of the bank capacity should be carried out, in terms of capacity in relation to the overall market environment, the e-trade development dynamics, the level of acceptance of the e-banking products and services by the clients, etc. In other words, in order to implement the e-banking, the banks must efficiently plan their capacity (to assess their capability), to prepare plans continuity of the business processes, contingency plans (including the communication strategy) and to clearly define the manners and strategies which they would use in a case of contingencies.

If seen from perspective of the use of modern ICT in banking operations, the latest ICT increases the risk management efficiency, in terms of their timely identification and minimization. For example, with the use of new instruments (collateral for debts, development of derivate markets) and online techniques, the crediting process benefits from better assessment and management of the credit risk. Additionally, the use of new technology which helps to identify more quickly and easily the market risk, especially the risk of change in price of goods, significantly contributes for easier control and reduction of that risk in the banking operation. We can therefore conclude that, by engaging new processes and technologies for protection of the information systems (from unauthorized hijackings, manipulations, modifications or damaging), the banks can significantly contribute towards reduction or even complete elimination of the consequences caused by specific risks on its' operations.

### **3. METHODS AND STRATEGIES FOR STRENGTHENING THE BANKING SYSTEMS RISK MANAGEMENT IN THE INFORMATION AGE**

The risk management process in a situation of increased use of contemporary IT technology in the operations of the commercial banks is becoming increasingly relevant and complex. In addition to the great importance of strengthening of growth and development of the banks, the information technology can also cause side effects on the business banking operations. Namely, it continuously pressures the senior management to more frequently reconsider the strategic approach towards the risks. Although the rapid implementation of modern ICT does not change the traditional banking risks, it significantly increases and modifies them, and also impacts the risk profile of the bank. The application of complex information technologies in the implementation of the banking activities means that the strategic, operational and especially the legal and reputational risk are gaining increasingly prominent place in the risk management process. The electronic banking can create many legal and regulatory uncertainties, that is, it can become more difficult to identify the contracting parties, to determine whether the operator or the users comply with all relevant legal obligations and regulatory regimes, etc.

The biggest threat today for reduction of the ICT functionality and efficiency, are the increasingly frequent attacks on software applications, websites and portals – the security of the new technology. In that regard, the ICT results not only in intensifying of some risks but some of them frequently overlap in the pragmatic banking operations, hence the need for their appropriate classification. For example, the breached security (unauthorized access to client information) can be classified as operational risk, but such an event also exposes the bank to legal and reputational risk. When there is a high correlation of the risks, and when the risks overlap in the business units, it is practically very difficult, almost impossible, to measure and efficiently manage them. In order to resolve these issues and avoid or reduce the business operation risks, the banks, especially the persons at senior management positions, are in charge of

developing clear institutional business strategy as well as risk management strategy – in other words: efficient identification, measurement, control and monitoring of the expected risks. They are responsible for establishing organizational structure that has clearly defined competencies and responsibilities, both of the persons and organizational units who are in charge of risks management and of those responsible for taking risks.

In order to build a strong team and efficient risk management processes, the banks should use the following proactive strategic approaches in the risk management:

**a) Rethinking and integration of the risk appetite into the business strategies.**

The Supervising and the Management Boards are responsible for defining the acceptable risk level and setting the relevant limits. The frequently occurring financial crises only confirm the need for the supervisory boards to shift their focus from the price of shares and the profitability, towards the risks. The efficient risk management requires to exactly calculate and determine the level of acceptable risk for each specific risk type and for each specific business unit. In that regard, the operational and reputational risk are gaining higher place on the agenda. However, vaguely established business objectives and the inappropriate communication could easily result in a termination of the link between the risk parameters established by the senior management boards and their permanent monitoring in the daily implementation of the business activities. Furthermore, the banks (due to the lack of appropriate technology, analyses, organizational setup or control) are not always able to determine whether particular business decisions are in accordance with the initially defined risk appetite<sup>2</sup>. It is therefore crucially important that every bank, in order to enable effective implementation of the defined risk appetite, ensures the following (BCBS, 2013):

a) effective aggregation and processing of the risk data;

b) reporting on the risk profile, that is, successful transfer of the defined risk level parameters to specific business units and to the level of bank counter.

Ensuring the existence of risk database and their effective aggregation and processing will help the banks to preemptively anticipate of the problems and improve the likelihood of finding alternative solutions towards greater financial stability. Banks still struggle to secure greater transparency of the risk management process beyond their senior management boards, that is, to strengthen the risk management culture at the level of specific business units. In order to overcome this situation, those responsible for risk management should be vested with greater authorizations in order to be able to contribute towards strengthening of the risk management culture in the bank.

**b) Strengthening the risk identification processes.**

The identification and classification of the potential risks in the business operations are among the most important processes in the risk management. The banks need to have holistic approach towards the risk management and to be cautious in the development of policies and procedures for their identification. The risk identification process can be significantly improved only if continuous daily monitoring of the risks is introduced, as well as establishment of stricter system for risk assessment in the banking portfolio, including introduction of clear procedures for reporting and monitoring of the new clients. In order to identify the many new functional risks (risks that occur often and overlap in many business units), many banks establish special committees that include representatives from a number of organizational units (finances, risks, IT, compliance, etc.). This is the way the banks improve the policies and procedures for approval of new products, with inclusion of a special risks group in charge of development, approval and monitoring of the procedure during its entire lifecycle.

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<sup>2</sup> Risk appetite is a level or type of risk which, in accordance with the business objectives set and the obligations towards the shareholders, the bank is able and willing to undertake in the implementation of its business activities. (Anderson and Associates, 2010)

**c) Focus on new risk groups.**

The information age brings new and intensifies some of the existing risk types in the agenda of the supervisory and management boards of the banks. In view of the intensified risks, the banks need to strengthen their management, especially in the following key risks: credit, operational, liquidity, market, strategic and reputational risk. In that regard, attention needs to be paid on introducing clear policies and procedures, standardization of processes and controls, improvement of data collection processes, strengthening of IT systems security, development of relevant methodologies and matrixes for quantifying of risks, etc. In addition, the implementation of stress test and devising scenarios and analyses for each risk type on regular basis is of significant relevance for forecasting of the value inputs in the processes of strategic planning and capital determination.

In the information economy, efficient risk management is about greater diversification of clients, retention and direction of the most solvent clients and attracting clients towards more productive banking products. According to Ernst and Young (2010) there are three ways that can significantly contribute towards building a comprehensive, integrated strategy for risk management. The successful implementation and continuous improvement of the strategy for risk management can only be achieved with continuous:

- a) Improvement of the data reporting and submission processes;
- b) Improvement and strengthening of instruments and methods for measuring, assessment and forecasting of risks; and
- c) Use of modern technology as a prerequisite for achieving greater efficiency.

The senior managers (members of Supervisory and Management Board) usually receive operational reports of individual business units with data pertaining to past periods. In order to make timely and efficient business decisions in an information age, the real challenge for the banks is to have the possibility to prepare reports, on more frequent basis, that will show true and realistic data, in real time, which will then help review, analyze and synthesize risks that are common for a number of business units.

The banks need to have sophisticated forecasting instruments that will help the senior management more easily forecast and understand the implications of specific market events and risks. In that regard, instead of models based on historical data and assumptions, the banks need to strive towards applying forward looking models (for scenario of planning and stress testing) which assume a low probability of occurrence of a particular event, but with high impact on the business operations. Instruments, such as simulations and visual representation, enable the banks to create, test and compare various strategic decisions. There is, of course, a danger of these forecasting models could become very complex, with too many assumptions and variables that will further complicate their interpretation, especially when used as a tool for making business decisions. Therefore, the banks should judge for themselves whether they will rely on the results of highly sophisticated models when making the key business decisions, or simply use current business intuition (God feelings), or use a combination of both methods.

For the purpose of efficient risk management, the executives of the banks must have clear vision for implementation of new technology, in a sense of support and improvement of the risk management processes. The new technology brings many advantages in terms of fast distribution of new products, in the same time reducing the development and maintenance costs. However, the implementation of new IT in the banking operations requires additional capital and know-how. On the other hand, the economic crises and the increased competition are reducing the capital the banks need to invest in new information technology. In view of the increased costs for implementation, the banks approach the challenges related to the new information technology in proportion with their abilities – size and complexity of the business activities. The larger banks usually can afford larger and deeper investments in systemic information, contrary to the smaller banks which usually implement IT projects for specific systems at particular business unit level. The differences in the level of development of the banks, that is, the different

implementation of the new IT will certainly produce different results and benefits for the banks from their practical implementation.

#### 4. CONCLUSIONS

The Internet penetration today is stronger than ever. According to the EU agenda, 9.2 billion Euros are expected to be invested in the key digital technologies for the period 2021-2027. The goal of the new investment Digital Europe Program is to ensure that all Europeans possess the skills and the necessary infrastructure to meet a full range of digital challenges. However, the e-novelties in the information economy need to be analyzed from both sides of the equation, i.e. positive and new opportunities, on the one hand, and challenges and dangers on the other. In that regard, the fast development and use of the e-banking brings about benefits but also risks. The e-banking risks would have to be timely identified, controlled and properly managed by the banking institutions. The field research implemented by the BCBS confirmed that the e-banking related activities do not contribute to the emergence of new risks, but they simply modify and intensify the traditional risks that could significantly affect the overall risk portfolio of the banks. The technological complexity of the e-banking related activities and their fast development intensify the strategic, operational and reputational risk.

The use of modern ICT in the banking operations increases the risk management efficiency in terms of timely identification and minimization of those risks. The information security requires harmonization of the technical, managerial, regulatory and legal aspects of the operation. In that regard, banks are recently much more concerned for promotion of the information security since they belong to the economic agents that largely apply the ICT innovations in their operations. The threat of cyber theft in information economies increasingly makes pressure to the international community to establish common information security processes and practices.

By engaging the new processes and technologies for protection of the information systems (from unauthorized takeovers, manipulations, modifications or damages), banks can significantly contribute towards reduction or possibly complete elimination of the consequences caused by specific risks on their operations. Therefore, the use of new ICT and utilization of all its advantages requires creation of active business policies and processes for risk management. As shown in the paper, banks need to adopt new methods and proactive strategic approaches in order to build strong teams and efficient risk management processes in the information age. In the future, those banks that do not apply proactive strategic approaches in the risk management and are not able to meet the basic criteria for information security would have to marginalize the risks appetite in their operations.

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## THE ROLE OF MARKETING IN THE NEW NORMAL

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### ABSTRACT

The novel Coronavirus (Covid-19) was declared as a pandemic by the World Health Organisation in March, 2020. It was called „once in a century pandemic“, or a „Wuhan virus“ as it has firstly appeared in the Chinese city of Wuhan in December 2019. Measures that governments have taken in order to keep people safe, had a significant impact on economies, markets and consumers. While certain industries and sectors had to close down for lengthy periods, lay off staff and fear for their existence, other made huge profits and rushed to move their activities online. Consumers, under government restrictions and faced with lockdowns, needed to shift their buying habits and patterns. Their buying priorities and behavior significantly changed. Consumers mostly purchase basic food products, personal hygiene products, disinfectants, vitamins, immunosuppressive drugs, anti-bacterial products, but also computers and computer equipment and telecommunication services. Bars, restaurants, travel agencies, entertainment industry, as well as automobiles, jewelry, luxury goods have experienced a sharp decline in consumption.

This paper aims to show how marketing can help companies reconnect with their consumers. The paper uses world-class analysis done by multiple marketing agencies. Even in the aftermath of a pandemic, companies need to continue their marketing activities. One of the wrong decisions of managers is to cut marketing costs in times of crisis. Consumers always remember the companies that were with them even in the worst of times, offering them goods and services, as well as, words of support, comfort and hope.

### KEYWORDS

Marketing, companies, pandemic, Covid-19, government's measures, consumers

### JEL CLASSIFICATION CODES

M31, M37

## 1. INTRODUCTION

Covid19 has suddenly shocked the entire world, affecting all countries, all economies, companies, and people. At the time of the virus outbreak, in late 2019, in the Chinese city of Wuhan, no one hoped it would cause a global pandemic catastrophe and would spread so fast around the world. Nobody believed it was so serious at the beginning. It was believed that the disease would be solved quickly, having in mind that the Chinese have a long tradition of fighting the viruses and epidemic diseases. For thousands of years they developed their natural medicine and the techniques and treatments to fight outbreaks of pandemics (Procel, et al).

The facts show that the situation with the virus is escalating: by the end of November 2020, Covid19 infected over 61.2 million people and caused the deaths of over 1.5 million people worldwide. (WHO). In North Macedonia, 57,500 people are infected and 1.600 people died, which is a terrible data for a small country. (WHO). The virus paralyzed the whole world including industry, trade, education and personal life of millions of people.

We are adjusting to the new reality or realities. The outcomes, reactions and responses are varying around the world. What is really incomprehensible and confusing about what is happening with the pandemic are the extremes that occur in the thinking and behavior of countries, economies, companies, and even people. On the one hand there are countries that have taken extreme restrictive measures, and on the other hand there are countries that undertook more relaxed measures hoping for collective immunity. Even people are divided, to one part who believe and are really afraid of the disease and those who do not believe, are not afraid and spread false news. False and inaccurate information about the coronavirus has spread around the world more rapidly than the virus itself, prompting the Head of the World Health Organization, Dr. Tedros Adhanam Glebreyesus to warn that “we’re not just fighting an epidemic, we’re fighting an infodemic. Cascades are more likely to occur with false news” (Olubunmi, 2020). Companies also behave differently, because some of them make big profits due to the nature of their business, others fear for their existence.

Some governments faced with large number of infected and dead people, have started to take measures and to impose rules to save human lives. Even though their responses have been mixed, they follow similar patterns, as: closing borders, travel restrictions, lockdown of key infected areas, ramp up of medical facilities and response, economic stimuli packages, intensified communication with the public. They have started to do everything to stop the spread of the virus.

It is estimated that the Covid19 will impose severe recession in the world. A lot of economies, due to the social distancing and closed borders, record negative outcomes and losses. Economies are facing with volatile financial markets, reduction in consumption, disruption in certain industries, lack of consumer confidence. There are negative implications to the both, supply and demand side. Decreased demand for products and services occurs from the changed customer behavior, and losses due to unavailability of supply arises from closed borders. However, from the pandemic, some industries will win, will grow and make huge profits and some will be losers on the edge of their survival. On the side of winners, there are companies that produce drugs, food, toiletries, anti-bacterial products, online retail, energy, support services, cleaning, beverages, telecommunications, insurance and healthcare. On the loser’s side, one can mention companies involved into leisure, luxury products, travel, fashion, hotels, bars, transportation, automotive industry and manufacturing. This means that some companies are affected far more than others.

Coronavirus changed the way people think, believe, hope, communicate, work, shop, pray. They start spending more time on Internet. The online educational programs, conferences, work, meetings, shops became part of everyday life. (Winkerson, 2020). With time, people get used to the new normal that is based on remote working, living under restrictions, online socializing. People have shifted into protection mode, focused more on themselves, their families, their employees, their customers, and their communities. (Bails, 2020) They are also seeking more in the way of escapism and entertainment — downloading gaming apps, spending more time on social media, and streaming more movies and scripted programming. Some of these behavior changes may be temporary, but many may be more permanent. (Balis, 2020). People have different priorities now related to pre-virus period and different buying patterns. Covid19 with lockdowns across the world has definitely an impact on brand loyalty, switching behavior as well as sustainability concerns among consumers.

Companies faced with the new customer behaviors and their changed needs and wants, try to find and respond accordingly. They need to alter their business and marketing strategies to meet the new customer needs. Faced with uncertainty about the future, many firms are responding to recession by adapting their marketing strategy to changing consumer behavior (The Nielsen, 2020). Companies adopt new and different ways of working, communicating, marketing and providing services. They feel a sudden need to switch to digital fully or partially, depending on the sector and products and services offered. Some



companies and products will disappear and others will “shine”. More agile and resourceful companies are likely to survive and succeed, whereas those with limited ability would take the hit.

The big question is how should marketing respond, but it depends on what industry, sector, products and services we are talking about. Common suggestions, given by many marketers, are as follows:

- To understand and estimate the consumption of products/services,
- To make a short and long-term plans on how the company can attract consumers and sell the products/ services,
- Look after shareholders, employees, consumers,
- Track cash flows,
- Monitor the external and internal environment, especially competition,
- Secure the supply chain,
- Track consumer behavior closely / Retention,
- Look for opportunities /optimization,
- Improve affordability,
- Use latest technology,
- Promote rational and emotive benefits,
- Switch to digital online targeted marketing,
- Loyalty programs,
- Drive new customer programs and
- Streamline portfolio

The most important thing for companies is to understand the customer base and how they assess purchases of goods and services in tough times.

## **2. THE NEW ROLE OF MARKETING**

Below, presented are some of the most significant analyzes made globally, on the behavior of companies towards marketing that demonstrate the new role of marketing. (Statista, 2020)

### **A) Companies should not cut the marketing budgets**

Marketers are just as in the dark about the effects of the lockdown restrictions on business as anyone else. They post lot of questions about the ways in which their companies now should be taking towards their customers. Where and how to spend their marketing budgets? How to organize the marketing activities? How to ensure staying in business? However, one thing is the most important, that: “there is no need to stop marketing.” (Vafainia, 2020). During economic crisis, one of the most common and wrong reactions of managers is to cut marketing costs to the minimum, mainly to protect short-term profits. However, there is an evidence indicating that cutting on marketing is not necessarily the best decision, especially if the focus is on the long-term. The main reason favoring a proactive marketing strategy during a recession is that as other firms in the industry reduce their marketing activities during a recession, a proactive firm could achieve a superior competitive advantage and market share by keeping its marketing budget at the same level as before the crisis. The statistics show that although three-quarters (73%) of advertisers have held back campaign launches, most (52%) are expected to resume or ramp up their advertising spending this summer.

### **B) Companies must increase their presence online and on social networks**

People change their buying behavior driven by Covid19. 62% of US shoppers say that they shop online more now than pre- Covid. Statista surveyed over 5.000 consumers in various countries to learn about their shopping plans in the post Covid-19. Consumers acknowledged that they now shop more online than previously: USA (62%), Canada (59%), Mexico (70%), UK (58%), France (41%), Germany

(32%) and Australia (47%). Overall, 49% of shoppers say they're shopping online now more than they were in the pre-Covid period. Companies should look to their online social media channels in order to take advantage of this surge in users. As traditional marketing and advertising spend decreases, the inverse is true of digital (online) marketing during the pandemic.

Also, search engine ads forecast to grow 5.9% this year and that is one of marketing area that will see an increased spending. With consumers spending more time on the Internet, it makes perfect sense for companies to invest more heavily driving traffic from search engines to their websites.

23% of consumers plan to continue watching more livestreaming videos post-outbreak. So, one of the more unassuming winners of the pandemic from a marketing point of view has been livestreaming, with a quarter of consumers saying they plan to continue watching more livestreaming events after the pandemic is over. With in-person gathering being significantly reduced, many companies have instead taken the opportunity to livestream events, conventions, product launches, conferences, talks, and everything in between online.

Email marketing (66%), websites (63%), and social media marketing (52%) are on top of the list of tactics that brands handled internally this year. Financial difficulties have naturally placed a significant burden on marketing budgets throughout the course of 2020. This has led to less reliance on external marketing agencies by businesses, instead using internal resources to carry out marketing goals. The three principal goals have unsurprisingly been the core digital channels, email, website, and social media. So, the suggestion is the companies to start and continue utilizing social media platforms to their fullest extent.

#### **C) Companies need to deliver timely and accurate information during the pandemic**

People find themselves having to adapt to the new normal and they're concerned about their financial and emotional wellbeing. Research shows that 87% of consumers appreciate brands that go out of their way to deliver timely and relevant information during the coronavirus pandemic. This is an opportunity for companies to step up and be a resource to them. Companies need to communicate to customers about how they will serve them during the pandemic. Companies need to reassure people that they are still in business and take care of their wants and needs.

#### **D) Companies need to empathize with consumers and to show it!**

Research has shown that a plurality of consumers (37%) want advertising to make them feel safe and give them a sense of normality, while others (31%) want ads to make them feel positive. In difficult times, consumers don't want brands to keep advertising to them, they want someone to give them support and guidance. People are vulnerable now. Empathy is crucial in marketing messages. Consumers should be treated with a light touch and as much compassion as possible.

People remember brands for their acts of good in a time of crisis, particularly if done with true hearth and generosity. This could take the form of donating to food banks, providing free products for medical personnel or continuing to pay employees while the company's doors are closed. (Balis, 2020)

Consumers will likely remember how Ford, GE, and 3M partnered to repurpose manufacturing capacity and put people back to work to make respirators and ventilators to fight coronavirus. And people appreciate that many adult beverage companies, from Diageo to ABInBev, repurposed their alcohol-manufacturing capabilities to make hand sanitizer, alleviating short supplies with their "It's in our hands to make a difference" message. However, companies need to show that their contributions are material and not solely for commercial benefit. Consumers recognize authenticity and true purpose. (Balis, 2020)

#### **E) Companies should not use humorous ads!**

In the pre-corona era, many marketers and marketing experts favored humor in advertising to attract consumers. However, now research points out that 40% of consumers say humorous communication is the wrong approach. While consumers want to feel reassured and positive during the crisis, they don't want to see humor in the ads. It's true that campaign messages vary wildly from one organization to another, but nonetheless companies should be very cautious in how their output will be perceived.

**F) Companies in their advertisements must support the protection measures provided by the government!**

Access to remote production and creative capacity will become particularly important as the crisis evolves. Nike, for example, immediately moved to adopt a new message: “Play inside, play for the world.” And in order to promote social distancing and show a commitment to public safety, Chiquita Brands removed Miss Chiquita from their logo. “I’m already home. Please do the same and protect yourself,” its Instagram caption read. (Balis,2020)

Other example is the company Google that helps people who search for vaccine information, travel advisories and prevention tips. Their SOS Alert in Search connects people with the latest news plus provides safety tips and links to more authoritative information from the World Health Organization. For people specifically looking for information about symptoms, prevention or treatments, Google is working to expand their Knowledge Panels for health conditions to include a COVID-19 panel. On YouTube, they will be using the homepage to direct users to the WHO or other locally relevant authoritative organizations and will donate ad inventory to governments and NGOs in impacted regions to use for education and information. Google Maps, also, continues to surface helpful and reliable local information. The Google Trust and Safety team has been working across the globe to safeguard users from phishing, conspiracy theories, malware and misinformation. On Google Ads all ads capitalizing on the coronavirus are blocked. Google is helping WHO and government organizations to run PSA ads.

The company Heineken, on their website stated the three guiding principles of themselves: a) health, safety and trust of our people, b) safeguard the continuity of our business and appeal of our brands and c) support to the communities who are most impacted.

These are only few examples, but a lot of companies and brands can be seen focusing their working and advertising for the benefit and wellness of consumers.

### **3. CONCLUSION**

The pandemic will end one day. Many countries are working to find a vaccine against Covid 19. Vaccine use is expected in the second half of 2021. But the world, including countries, economies, companies and people, will change. Some changes and behaviors will remain permanent and some temporarily. Marketing has always aimed to follow, research and satisfy the needs and wants of consumers. Customers make businesses. Companies will need to do good marketing research and continue their marketing activities. When this is all done, the companies and organizations that will thrive will be the ones who will play the major role in rebuilding the world.

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## FACTORS AFFECTING BANK LIQUIDITY IN REPUBLIC OF NORTH MACEDONIA

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### ABSTRACT

Banks' liquidity is a critical phenomenon that must be constantly monitored and managed in order for bank to achieve an appropriate maturity transformation of liabilities into assets, while maintaining an appropriate level of profitability. Additionally, liquidity as a critical point in the management of the bank's assets indirectly affects the growth, development, but also the functioning of the banks in general.

The purpose of this research is to determine the factors that affect the liquidity of banks in the Republic of North Macedonia measured through gross loans to total assets ratio. In order to determine which factors affect the liquidity of the banks in RNM, the regression model includes secondary data on micro-factors affecting the liquidity of the banking sector, ie NPL / Gross loans (non-fin.), ROAA, Cost to income ratio, Loan growth, Deposit growth, CAR and secondary data on macroeconomic factors. ie GDP growth, inflation and unemployment. Furthermore, the empirical research continues to focus more on the individual groups of banks by size, in order to determine the micro factors that have a significant impact on the liquidity of large, medium and small size banks in the Republic of North Macedonia for the time spin 2005q1 – 2020q1.

### KEYWORDS

liquidity, bank-specific factors, macro-factors, bank size, OLS.

### JEL CLASSIFICATION CODES

C22; G21.

### 1. INTRODUCTION

Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses, without incurring unacceptable losses (BIS, 2008). According to Macedonian banking law, banks should manage their assets and liabilities in a manner that ensures settlement of due liabilities at all times. The issue of liquidity arises from transformation functions of banks, i.e. maturity transformation. By borrowing short and lending long banks expose themselves to risk of not being able to meet obligations on time. In other words, and looking at the bank's balance sheet, banks transform short-term, liquid liabilities into long-term, illiquid assets. By doing so, banks provide customers with smooth and continuous consumption or investment, and protect them against liquidity problems, but simultaneously they exposed themselves to liquidity risks. Banks as liquidity provider, may

unexpectedly experience extreme shortages of liquidity which could be triggered by larger amount of standby credit drawn or/and unexpected reduction in the availability of deposits (Crockett, 2008). Therefore, efficient coordination of the cash inflows and cash outflows, in order to meet the cash flow shortfalls, requires effective risk management structure for managing liquidity (Nagret, 2009).

The concept of liquidity and its risk are essential for continuous and efficient operating of all financial institutions. This topic is especially important and crucial, and became central topic for studies and researches after the recent global financial crisis where number of banking and non-banking financial institutions faced liquidity problems. As a response to that, banking, non-banking financial institutions, regulators and monetary authorities initiate changes in liquidity measures and continuous assessment and management of liquidity risk. Additionally, many authors dedicated a large amount of their attention to seeking determinants which have influence over bank liquidity. The majority of studies, however, group factors that determine bank's liquidity into bank specific determinants, or micro factors and macro determinants. Investigated micro factors typically include factors such as non-performing loans, bank capital adequacy, deposit growth rate, bank size, loan growth rate and profitability. Macro determinants are external factors outside the control of bank's management team and they present the economic environment surrounding banking sector. Macroeconomic factors that may affect the bank's liquidity include factors such as GDP, marginal interest rate, inflation rate and unemployment rate.

For example, Agarwal (2019) conducted an empirical analysis on the commercial banks of India for the period 2005 to 2017, by investigating bank specific factors such as bank size, deposits, cost of funds, capital adequacy ratio, non-performing assets and ROE. The results showed that determinants of liquidity vary for public and private sector banks. Bank size is a significant determinant of liquidity of both public and private sectors banks. In public sector banks, the deposit growth and capital adequacy ratio have statistically significant influence over bank's liquidity, while NPLs and profitability showed insignificant results for both the sectors.

According to the panel data regression analysis that Vodova conducted among Hungarian commercial banks (for time period of 2001 to 2010) in 2013, bank liquidity decreases with the size of the bank, while small and medium sized banks hold a buffer of liquid assets which is fully in accordance with the "too big to fail" hypothesis. Liquidity is negatively influenced also by the interest margin and monetary policy interest rate. Both factors lead to higher lending activity of banks and thus reduce bank liquidity. On the other hand, bank liquidity increases with the higher capital adequacy of banks, the higher interest rate on loans and higher bank profitability. However, unemployment, share of nonperforming loans and financial crisis has no statistically significant effect on the liquidity of Hungarian commercial banks.

Dinger (2009) conducted cross border analysis within ten banking systems (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) and points out that smaller banks have tendency to be more liquid, while foreign banks are less liquid than domestic banks, and that bank size is one of the determinant factors regarding liquidity.

The purpose of this paper is to examine the bank specific and macroeconomic determinants on banks' liquidity in RNM. This paper is trying to make a contribution towards researching and discovering which determinants have significant impact over bank's liquidity in our banking sector for better managing and monitoring bank's liquidity. Therefore, this paper is structured in three chapters. First chapter gives overview of liquidity measurement in banking sector. Second chapter focuses on explaining each of the determinants included in the research, followed by describing the methodology of the conducted research, data used and the obtained results. The last chapter provides concluding remarks.

## **2. BANKS' LIQUIDITY MEASUREMENT**

Banks maintain appropriate level of liquidity by using several mechanisms such as: everyday planning and monitoring cash inflows and outflows; establishing and maintaining an appropriate maturity structure of assets and liabilities; monitoring significant sources of funds and their concentration, as well as establishing, ie maintaining regular communication with large depositors; maintenance of mandatory



prescribed liquidity rates, and determination and monitoring of liquidity indicators. As noted previously and according to Vodova and Moore (2009) banks maintain their liquidity by using the liquidity gap approach and/or liquidity ratios. Nevertheless, for academic purpose and for this paper liquidity ratios are employed because they are more appropriate, more available and easier to compute.

In the area of liquidity regulation, the Basel Committee proposed introduction of two liquidity indicators, LCR (Liquidity Coverage Ratio) and NSFR (Net Stable Funding Ratio). The purpose behind these two indicators is establishing minimum levels of liquidity for internationally active banks with short and long term aim of increasing banks' ability in funding liquidity.

In banks' liquidity research papers stock liquidity ratios dominate. For example, Vodova in 2012 employed two most convenient liquidity measures, i.e. loan to deposit ratio and a liquid asset to deposit ratio. Loan to deposit ratio describes what proportion from the loans, which are illiquid, are financed by deposits, while the liquid asset to deposit ratio indicates the extent to which the bank's total liquid assets are composed of deposits from customers and other financial institutions. Other scholars, such as Singh and Sharma (2015) measure bank liquidity by using liquid assets over total assets ratio.

In this research paper liquidity will be measured using gross loans to total active ratio, because of the availability of data regarding the banking sector in RNM. This ratio is considered as an important ratio which measures bank liquidity with respect to its total assets.<sup>3</sup> This ratio also named as capacity ratio indicates the share of bank's total assets that have been invested in loans. The higher the value of this indicator shows that the bank has undersized liquidity position, because loans are the least liquid assets in the bank balance sheet.

### 3. BANK SPECIFIC AND MACRO FACTORS THAT AFFECT BANKS' LIQUIDITY

Bank's liquidity presents function of many factors and authors across countries from this research area apply various explanatory variables for the purpose of determining and defining the factors that have significant impact over it. Bank specific factors include factors such as non-performing loans, bank capital adequacy, bank deposits and profitability. Macro factors are external factors that affect bank's liquidity and these are not under the management of the bank, but imply the influence of the economic and legal environment that is affecting the bank's functioning and banks liquidity position. Macroeconomic factors that may affect the bank's liquidity include factors such as GDP, inflation rate and unemployment rate.

**Non- Performing Loans and Liquidity.** Non-performing loans (NPLs) are loans, wherein their principal, interest, other non-interest claims have not been collected in a period longer than 90 days from the maturity date. According to International Monetary Fund's (IMF) "loans (and other assets) should be classified as the NPL when (1) payments of principal and interest are past due by 3 months (90 days) or more, or (2) interest payments equal to 3 months (90 days) interest or more have been capitalized (re-invested into the principal amount, refinanced, or rolled over (i.e. payment has been delayed by arrangements)". Bank for International Settlements (BIS) defines "a default is considered to have occurred with regard to a particular obligor when the obligor is past due more than 90 days on any material credit obligation to the banking group". Due to the fact that NPLs do not generate funding liquidity, the growth of these loans in total credit portfolio of a bank is of serious concern. Therefore, we assume that non-performing loans measures as a ratio between non-performing loans and total loans, have negative impact over bank's liquidity. According to Mazreku *et al.* (2019), Tibebu (2019), Belete (2015), Horwath *et al.* (2012), Tesfaye, (2012) and Melese & Laximikantham (2003) the growth of non-performing loans reduces the level of liquid assets of banks.

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<sup>3</sup> Mustahsan Elahi (2017), Factors Influencing Liquidity in Leading Banks "A Comparative Study of Banks Operating in UK and Germany Listed on LSE", Imperial Journal of Interdisciplinary Research (IJIR), Vol-3, Issue-2, pp.1555 - 1575

**Profitability and Liquidity.** Liquidity and profitability are the key variables for any banking or non-banking business entity. In case of banks, loans are main generator of income, but on the other hand they are the most illiquid asset on the balance sheet. The higher the volume of the loans, the higher will be the interest income and the potential profits of commercial banks, but banks with a larger volume of credit face a higher risk of liquidity. Therefore, banks continuously strive for a balance between liquidity and profitability. According to Singh and Sharma (2016), Roman and Sargu (2015) and Melese (2015) profitability measured by return on asset (ROA) has a positive impact on the liquidity of banks. On the contrary, Mehdi and Abderrassoul (2014) found out that return on asset has a negative impact on the liquidity position of banks. Another indicator introduced in this research paper for banks' profitability is cost to income ratio (C/I ratio) which shows the relationship between the bank's operating expenses and revenues. This ratio gives a clear indication of how efficiently the bank works - the lower it is, the more profitable the bank is. Under these notations the assumptions are:

**Loan growth and Liquidity.** According to the literature, liquidity and credit risks are positively correlated. By increasing the loan supply on the market, banks expose themselves to higher liquidity risk, i.e. they invest depositors' money in more illiquid assets. The results of regression analysis that Berihun conducted in eight Ethiopian commercial banks covering the period from 2002/03 to 2013/14 showed that bank size and loan growth had negative and statistically significant impact on banks liquidity measured by liquid assets to total assets.

**Deposit growth and Liquidity.** Banks' liquidity decreases when deposits are suddenly withdrawn. Therefore, banks are obliged to maintain adequate levels of liquidity that monetary authority determines. If deposits grow, then the liquidity held by banks should increase. According to conducted researches by Bonner, Lelyveld and Zymek (2013), Laštůvková (2013), and Moussa (2015) deposit growth has a positive relationship with bank's liquidity. However, Moussa (2015) found that deposits have insignificant effect on bank liquidity. Bonner et al. (2013) and Kashyap *et al.* (2002) argued that as demand deposits increase, liquidity asset holdings also increase. On the contrary, Dinger (2009) studied emerging economies for the period of 1994 to 2004 and found that as the deposit rate increases bank liquidity decreases.

**Capital Adequacy and Liquidity.** High bank's capital increases its capacity of absorbing risks and creating liquidity. The capital adequacy ratio (CAR) indicates the extent to which assets are funded by other than own funds and is a measure of capital adequacy of the deposit-taking sector. The purpose behind the CAR is to prevent banks from excessive expansion of risk assets, i.e. to protect interests of depositors and other creditors. Monetary authorities of various countries regulate the capital adequacy ratio of commercial banks in order to monitor the bank's ability to resist risks. The impact that capital adequacy had over bank liquidity was studied by Choon et al. (2013), Delechat et al. (2012), Moussa (2015), Bunda and Desquilbet (2008), Bhatia and De Zoysa (2012) and Bhati, De Zoysa and Jitaree (2015) and it was found a significant and negative impact. However, Vodava (2013) by applying panel data regression in Hungarian commercial bank showed that capital adequacy of banks affects liquidity positively.

**Gross Domestic Product and Liquidity.** Macroeconomic circumstances have direct effect in the overall economy, including the financial sector. According to Pana et al. 2009; Shen et al. 2010 macroeconomic conditions affect bank activities and investment decisions as the profile of bank liquidity. Gross Domestic Product presents an indicator of a business cycle, and during economic boom, banks increase their credit activities, have high degree of confidence in the financial and nonfinancial legal entities about their profitability and have higher volume of investments, and even prefer riskier investments with higher return. On the other side is the decreased preference for liquidity. Based on these arguments, banks will increase their illiquidity during economic expansion. According to Moussa (2015), Bunda and Desquilbet (2008) and Choon et al. (2013) there is a positive impact of GDP on bank liquidity while Valla et al. (2006), Dinger (2009), Vodava (2011) and Aspachs et al. (2005) discovered negative relationships



between the two. According to Aspachs et al. (2005), UK banks seemed to hold smaller amounts of liquidity when GDP increased and vice versa, for the period of 1985 to 2003.

**Inflation and Liquidity.** An increase in inflation lowers purchasing power and households and legal entities need more money than before to buy the same products. This macroeconomic context may increase banks' credit activities and thus lower liquidity. The empirical study of Moussa (2015) of Tunisian banks revealed that the impact of changes in inflation rates on bank liquidity is negative. According to Tseganesh (2012), inflation has positive impact on the liquidity while study by Horváth *et al.* (2014) finds insignificant effect on the banks liquid assets. Raesi *et al.* (2014) based on the survey in 18 banks of Islamic Republic of Iran revealed that inflation rate has positive effect on banks' liquidity.

**Unemployment and Liquidity.** During economic downturn, macroeconomic context notes increase in the unemployment rate, which additionally reflects a decrease in credit demand and an increase of NPLs and indirectly effects on lowering banks' liquidity and profitability. With the increase of unemployment rate and decrease in credit demand, banks lose the cash supply (source for liquidity funding) from monthly loan installments and future income, and net – profit as well. Economic expansion notes lowering in unemployment rates and more liquidity is created by banks. The studies by Vodova (2012) and Horváth *et al.* (2014), support the aforementioned issues by point out bank liquidity decreases with the higher unemployment rate. However, findings by Munteanu (2012) and Singh and Sharma (2016) suggested that unemployment rate had positive impact on bank liquidity, i.e. increased bank liquidity.

Unemployment rate is calculated as percentage of the unemployed population over the total number of economically active population. The rate indicates that the number of persons who are ready (aged fifteen years and above) to participate or engaged in the production of goods and services.

In general, the following table summarizes the variables, which are explained and involved in the study with its measurement and expected sign.

Table 1. Description of dependent and independent variables

<i>Variables</i>	<i>Measurement</i>	<i>Expected Sign</i>
<b>Dependent Variable</b>		
Liquidity (LIQ)	Gross loans/Total assets	
<b>Independent Variables</b>		
Non-performing Loans (NPLs)	NPL/Gross loans (non-fin.)	Negative
Profitability	ROAA = Net Income/Total Average Assets	Negative
	Cost to income ratio (C/I) = Operating expences/Operating income	Positive
Loan growth (LG)	[Gross loans year (n) - Gross loans year (n-1)]/Gross loans year (n-1)	Negative
Deposit growth (DG)	[Deposits year (n) - Deposits year (n-1)]/Deposits (n-1)	Positive
Capital Adequacy Ratio (CAR)	(Tier 1 Capital + Tier 2 Capital) / Risk-Weighted Assets	Negative/Positive
Gross Domestic Product (GDP)	The quarterly growth rate of real gross domestic product	Negative/Positive
Inflation (INF)	Quarterly rate of inflation (current month/same month of the previous year)	Negative/Positive
Unemployment (UNP)	Unemployment rate	Negative/Positive

Source: authors source.

### 3.1. Sample Data and Methodology

For the purpose of determining the internal and external factor that affect liquidity in banking sector in Republic of North Macedonia, four regression models (OLS) were constructed. Data which are used in these models are secondary and derived from publicly established reports by the National Bank of RNM and State Statistical Office.

General model equations are defined as follows:

*First regression model for banking sector*

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \beta_6 X_{6t} + \beta_7 X_{7t} + \beta_8 X_{8t} + \beta_9 X_{9t} + \varepsilon_t$$

$Y_t$ - Liquidity for banking sector at time  $t$ ;

$X_{1t}$ - NPLs for banking sector at time  $t$ ;

$X_{2t}$ - ROAA for banking sector at time  $t$ ;

$X_{3t}$ - C/I ratio for banking sector at time  $t$ ;

$X_{4t}$ - LG for banking sector at time  $t$ ;

$X_{5t}$ - DG for banking sector at time  $t$ ;

$X_{6t}$ - CAR for banking sector at time  $t$ ;

$X_{7t}$ - GDP at time  $t$ ;

$X_{8t}$ - INF at time  $t$ ;

$X_{9t}$ - UNE at time  $t$ ;

*Second regression model for large banks*

$$Y_{Lt} = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \beta_6 X_{6t} + \beta_7 X_{7t} + \beta_8 X_{8t} + \beta_9 X_{9t} + \varepsilon_t$$

$Y_{Lt}$ - Liquidity for large banks at time  $t$ ;

$X_{1t}$ - NPLs for large banks at time  $t$ ;

$X_{2t}$ - ROAA for large banks at time  $t$ ;

$X_{3t}$ - C/I ratio for large banks at time  $t$ ;

$X_{4t}$ - LG for large banks at time  $t$ ;

$X_{5t}$ - DG for large banks at time  $t$ ;

$X_{6t}$ - CAR for large banks at time  $t$ ;

$X_{7t}$ - GDP at time  $t$ ;

$X_{8t}$ - INF at time  $t$ ;

$X_{9t}$ - UNE at time  $t$ ;

*Third regression model for medium sized banks*

$$Y_{Mt} = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \beta_6 X_{6t} + \beta_7 X_{7t} + \beta_8 X_{8t} + \beta_9 X_{9t} + \varepsilon_t$$

$Y_{Mt}$ - Liquidity for medium sized banks at time  $t$ ;

$X_{1t}$ - NPLs for medium sized banks at time  $t$ ;

$X_{2t}$ - ROAA for medium sized banks at time  $t$ ;

$X_{3t}$ - C/I ratio for medium sized banks at time  $t$ ;

$X_{4t}$ - LG for medium sized banks at time  $t$ ;

$X_{5t}$ - DG for medium sized banks at time  $t$ ;

$X_{6t}$ - CAR for medium sized banks at time  $t$ ;

$X_{7t}$ - GDP at time  $t$ ;

$X_{8t}$ - INF at time  $t$ ;

$X_{9t}$ - UNE at time  $t$ ;

*Fourth regression model for small banks*

$$Y_{St} = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \beta_6 X_{6t} + \beta_7 X_{7t} + \beta_8 X_{8t} + \beta_9 X_{9t} + \varepsilon_t$$

$Y_{St}$ - Liquidity for small banks at time  $t$ ;

$X_{1t}$ - NPLs for small banks at time  $t$ ;

$X_{2t}$ - ROAA for small banks at time  $t$ ;

$X_{3t}$ - C/I ratio for small banks at time  $t$ ;

$X_{4t}$ - LG for small banks at time  $t$ ;

$X_{5t}$ - DG for small banks at time  $t$ ;

$X_{6t}$  - CAR for small banks at time  $t$ ;

$X_{7t}$  - GDP at time  $t$ ;

$X_{8t}$  - INF at time  $t$ ;

$X_{9t}$  - UNE at time  $t$ ;

#### 4. EMPIRICAL FINDINGS

In order to determine the internal and external factor that affect liquidity in banking sector in Republic of North Macedonia, four regression models (OLS) were constructed by using quarterly time series for the time period 2005q1 – 2020q1. In addition, in the first model, by using the OLS methodology it is determined the effect of internal and external factor on the liquidity of the total banking sector in the Republic of North Macedonia. The  $R^2 = 0.9009$ , implies that 90.09% of the changes of the liquidity can be explained through the changes of the internal and external factors that are included in the first model. In addition, its results imply a negative and statistically significant relationship between the deposit growth and liquidity of the total banking sector in the Republic of North Macedonia for the time spin 2005q1 – 2020q1. Thus, by increasing 1% of the domestic growth, the liquidity will decrease by 0.18%. These results are in line with those of the Dinger (2009). Moreover, a negative association it is also present between capital adequacy ratio and liquidity of the total banking sector in the Republic of North Macedonia for the given analyzed time period. In this regard, we expect 2.04% decrease of the liquidity by 1% increase of the capital adequacy ratio of the total banking sector in the Republic of North Macedonia. The results are in line with several existing studies of Bhati, De Zoysa and Jitaree (2015); Moussa (2015); Choon et al. (2013); Delechat et al. (2012); Bhati and De Zoysa (2012); and Bunda and Desquilbet (2008).

In order to determine the internal and external factors that affect the liquidity of the large banks in the Republic of North Macedonia, the second model was conducted by using the OLS methodology. Results imply a negative and statistically significant relationship between the non-performing loans and liquidity of the large banks sector in the Republic of North Macedonia for the time spin 2005q1 – 2020q1. Thus, by increasing 1% of the non-performing loans, the liquidity will decrease by 0.947%. These results are in line with those of Mazreku *et al.* (2019), Tibebu (2019), Belete (2015), Horwath *et al.* (2012), Tesfaye, (2012) and Melese & Laximikantham (2003). Moreover, a negative association it is also present between profitability and liquidity of the large banks sector in the Republic of North Macedonia for the given analyzed time period. In this regard, we expect 4.973% decrease of the liquidity, by 1% increase of the ROAA of the large banks sector in the Republic of North Macedonia. These results are in line with those of Mehdi and Abderrassoul (2014). Same results regarding the profitability can be noticed when using the cost to income ratio – CIR, which has results to have a negative and significant impact on the liquidity of the large banks sector operating in the Republic of North Macedonia.

As for the effects of the internal and external factors that affect the liquidity of the medium size banks in the Republic of North Macedonia, the third model was conducted by using the OLS methodology. Results imply a negative and statistically significant relationship between the non-performing loans and liquidity of the medium size banks sector in the Republic of North Macedonia for the time spin 2005q1 – 2020q1. Thus, by increasing 1% of the non-performing loans, the liquidity will decrease by 0.495%. Moreover, a positive association it is also present between profitability and liquidity of the medium size banks sector in the Republic of North Macedonia for the given analyzed time period, by using the cost to income ratio – CIR. Further, a negative and statistically significant relationship is estimated between capital adequacy ratio and liquidity of the medium banks sector in the Republic of North Macedonia for the given analyzed time period. In this regard, we expect 0.475% decrease of the liquidity by 1% increase of the capital adequacy ratio of medium banks sector in the Republic of North Macedonia.

The last model (model4) investigates the effects of the internal and external factors on the liquidity on the small and micro size banks sector in the Republic of North Macedonia. Results imply a

negative and statistically significant relationship between the non-performing loans and liquidity of the small and micro size banks sector in the Republic of North Macedonia for the time spin 2005q1 – 2020q1. Thus, by increasing 1% of the non-performing loans, the liquidity will decrease by 0.325%. Moreover, a negative association it is also present between the deposit growth and liquidity of the small and micro sector in the Republic of North Macedonia for the time spin 2005q1 – 2020q1. Thus, by increasing 1% of the deposit growth, the liquidity will decrease by 0.123%. Moreover, a negative effect can be seen on that of the loan growth on the liquidity of the small and micro sized banks in the Republic of North Macedonia, where by increasing 1% of the loan growth, the liquidity will increase by 0.1%. Further, a negative and statistically significant relationship is estimated between capital adequacy ratio and liquidity of the small and micro banks sector in the Republic of North Macedonia for the given analyzed time period. In this regard, we expect 0.715% decrease of the liquidity by 1% increase of the capital adequacy ratio of small and micro sized banks sector in the Republic of North Macedonia. As for the external or macro factors that affect the liquidity of the small and micro sized banks in the Republic of North Macedonia, we can notice a positive relationship between GDP growth and liquidity of small and micro sized banks, where by increasing 1% of the GDP, the liquidity will increase by 0.8%. These results are in line with those of Moussa (2015), Bunda and Desquilbet (2008) and Choon et al. (2013).

Table2. Effects of internal and external factors on the liquidity of banking sector in Republic of North Macedonia.

<b>VARIABLES</b>	<b>Model 1 (total banking sector)</b>	<b>Model 2 (large banks)</b>	<b>Model 3 (medium banks)</b>	<b>Model 4 (small and micro banks)</b>
Dependent variable - GLTA				
NPLs	-0.2041 (0.1832)	-0.9471 (0.2095)***	-0.4915 (0.2043)**	-0.3253 (0.1271)**
ROAA	-0.9628 (0.670)	-4.973 (0.7558)***	-1.186 (1.1047)	-0.3406 (0.8941)
CIR	0.0085 (0.0084)	-0.7193 (0.1666)***	0.2221 (0.1194)*	0.0105 (0.037)
LG	-0.1652 (0.1522)	-0.0659 (0.1744)	0.0931 (0.0944)	0.1079 (0.0500)**
DG	-0.3518 (0.1054)***	-0.1519 (0.1617)	-0.0606 (0.0976)	-0.1238 (0.0561)**
CAR	-2.0431 (0.2445)***	-0.6246 (0.6943)	-0.4756 (0.1920)**	-0.7150 (0.0530)***
GDP	-0.18527 (0.1413)	-0.3599 (0.2485)	0.1386 (0.2084)	0.8032 (0.2918)***
INF	-0.2219 (0.1510)	-0.1682 (0.2328)	-0.3709 (0.2955)	0.06194 (0.2484)
UNE	0.0135 (0.1317)	0.4704 (0.2849)	-0.0600 (0.522)	0.00475 (0.1313)
Nr. of obserations	61	61	61	61
R <sup>2</sup>	0.9009	0.698	0.7512	0.9184
Root MSE	1.786	3.282	3.007	4.4132
Notes: Standard errors are reported in parenthesis and *, **, *** indicate significance levels of 10 %, 5 %, and 1 %, respectively.				

Source: authors calculations.

## 5. CONCLUSIONS

The objective of this paper is to determine the effects of the bank specific factors and macro factors that affect the liquidity of the banking sector in the Republic of North Macedonia, by utilizing quarterly time data for 2005q1 – 2020q1. In addition, by using the OLS methodology, the first model was established to determine the effects of the internal and external factors on the liquidity of the overall banking sector on the Republic of North Macedonia, where the results implied that from the internal factors only deposit growth and capital adequacy ratio tend to have negative and significant effect on the liquidity of the banking sector in RNM, while the external factors are shown to be insignificant in this model. As for the large banks, non-performing loans, ROAA and CIR have negative and significant impact on the liquidity of the large banks in the RNM, while at the case of the medium sized banks, from the bank specific factor a negative association can be seen between non-performing loans, capital adequacy ratio and liquidity, while a positive relationship is noticed between Cost to income ratio (CIR) and liquidity. The last model deals with the effect of the bank specific factors and macro factors on the small and micro sized banks in the Republic of North Macedonia, where a negative relationship is noticed between non-performing loans, capital adequacy ratio and liquidity. A positive nexus is seen between loan growth and liquidity, whereas for the macro factors only GDP growth tends to have a significant and positive effect on the liquidity of the small and micro sized banks, while unemployment rate and inflation tend to be insignificant in the model.

### 5.1. Limitations of conducted research

This research paper embodies secondary data for banking sector and three groups of banks in Republic of North Macedonia. Future research can be carried out by taking into consideration data from each separate bank's reports, i.e. by investigating several particular banks from RNM, by investigating banks from Europe and comparing them with Macedonian banks. The conducted research included loan to asset ratio to mark liquidity, while other researchers may prefer other liquidity ratios.

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## **COMPLIANCE WITH BASEL STANDARDS AND PRACTICES OF RISK MANAGEMENT - TRENDS AND CHALLENGES OF THE MACEDONIAN BANKS**

*Elena Parnardzieva Stanoevska*

### **ABSTRACT**

The risk management process is a continuous process that is constantly evolving. As the world changes, the activities of banks change, there is a need for new types of products, new ways and practices for operation, new software solutions. Organizational schemes, security policies, etc. are also changing. Everything leads to the emergence of new risks or the re-emergence and intensification of existing, controlled risks. There is a need for new fresh capital or more productive use of available resources for more efficient multiplication of existing capital. Therefore, permanent evolution and upgrading of the risk and capital management system is required, both domestically and internationally. The Basel standards that are being developed in order to strengthen the banking sector and introduce additional market discipline have the ultimate goal of strengthening the capital of banks and improving the practices in risk management, i.e. the financial landscape of a national economy.

In this paper special attention is given to the compliance of the Macedonian banks with the application of the Basel standards and the recommendations of the Basel Committee for Banking Supervision (BCBS) on the best practices of risk management. Primary goal is to demonstrate why is necessary domestic regulation to be harmonized with Basel standards and to what extent the Macedonian legislation complies with it. Particularly, in the paper progress is presented of the Macedonian banks in implementing the Basel III regulatory reforms in a full, timely and consistent manner. The analysis shows that Macedonian banks have made particular progress towards meeting the Basel III capital requirements. Capital and liquidity ratios are on satisfactory level and have generally remained stable in the first half of the year beside the impact of Covid-19. However, the Macedonian legislation lags behind and there is still room for further harmonization with Basel's standards and practices of risk management.

Analytic and field research was used for the preparation of the paper. Surveying as well as analysis and synthesis methods have been applied. Internet was used as a major tool to approach to data and literature. Additionally, tables and graphical methods have been employed for visual presentations during the research.

### **KEYWORDS**

Risk Management, Capital Management, Basel standards, banks

### **JEL CLASSIFICATION CODES**

G21, G32, F39

## 1. INTRODUCTION

In order to strengthen the resilience of the banking sector to financial shocks and crises and their international spillover, modern Basel standards are increasingly pushing for strengthening the capital framework of the bank. They create a regulatory framework (especially Basel II) to encourage the development of risk management in the banking sector. Increased efficiency in risk management as a rule leads to reduced need for capital for certain business processes. Through integrated capital and risk management, banks should constantly adjust the available capital with the level of undertaken risks, i.e. increase the required capital to cover the risks in accordance with the growing appetite of the banks for risk.

With the advent of new and more complex financial products and technologies, banks are exposing themselves to increased risks. The challenge for any modern bank is to balance the desired, undertaken risky portfolio with capital constraints. In this regard, capital management and risk management should be considered as two complementary disciplines. By applying an efficient capital strategy complementary to the risk management strategy, banks will reduce the need for reservations, improve capital efficiency, i.e. achieve increased portfolio productivity and increased return on equity (ROE). Banks that effectively manage capital will be in a much better capital position and will be able to manage risks much more easily, i.e. they will have room to maneuver, especially in difficult market conditions faced with capital and liquidity pressures. On the other hand, the risk management system is used as a process to determine the required amount of capital necessary to cover future potential losses. The most successful banks will be those that will succeed with the help of modern information communication technology (ICT) and best practices for risk and capital management to maximize profits from existing accounts, while minimizing the amount of capital needed to cover their risk.

In order to respond to the increasingly complex modern banking system and the need for international harmonization of banking regulations, the BCBS<sup>4</sup> conducts a permanent audit of the Basel Standards and Practices. The urgency of the need for continuous improvement of the methods for measuring and managing the risks in the banking operations is indicated by the constant revision of the Basel standards dating back to 1988 through the implementation of the Basel I, II, III and nowadays Basel IV standards. The rapid development of ICT and the need to strengthen the banks' resilience to financial shocks have further encouraged the BCBS to create and implement new banking standards and practices. The application and monitoring of the internationally recognized experiences, and the monitoring of the universally accepted standards and codes of the banking operations, by the international banks as well as by the Macedonian banks is a necessary step for strengthening the domestic financial landscape.

Unified format of risk management in the world does not exist. The national legislation of the country, the level of development of the market economy and the level of development of the financial market are the basic determinants of the national risk management codes. In a global world we live in today, the regulatory bodies of national economies, all in order to contribute to the easier integration of domestic banks in the world financial markets, will inevitably have to follow and respect international rules and standards. However, they should always bear in mind that too many regulatory requirements mean a huge burden for banks, while reducing their ongoing profitable activities and making them less effective. On the other hand, insufficient regulatory requirements may affect the safety of the financial sector. In this context, regulators should better assess the benefits of the application of capital agreements regarding the readiness of the domestic banking system implementation. As can be seen from this paper particular attention should be paid when setting the timetable and assessment of the readiness of banks having sound input for practical application of capital calculations. Therefore, in order to develop a

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<sup>4</sup> Basel Committee on Banking Supervision (BCBS) was established by the Central Bank Governors of the Group of Ten countries (G-10) + two countries in 1975: Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Sweden, Switzerland, UK Britain and the United States. In 2019, the BCBS has 45 members.

quality system for risk management and its control, it is inevitable that there is close cooperation between regulators and banks.

Through practical field research activity, an analysis of compliance of the legislation of Republic of North Macedonia (MK) with the Basel standards was conducted. Based on semi-annual data for the period 2015-2020, an analysis of the situation in the Macedonian banking system was conducted by groups of banks (large, medium and small)<sup>5</sup>. As a research instrument a questionnaire is also used. The questionnaire was mainly designed to provide answers to the main research aims, i.e. to capture information regarding fully and timely implementation of the Basel standards in the macedonian banking sector.<sup>6</sup>

## 2. EVOLUTION OF THE BASEL CAPITAL STANDARDS AND REGULATIONS OF RISK MANAGEMENT

The importance of having a stable system for risk management, i.e. stable banking system comes especially to the fore particularly when the economy is facing a financial crisis. Thus, in modern financial environment, the process of risk management from ordinary banking activity management quality of the loan portfolio has grown into a complex set of procedures and tools.

The Basel initiatives of the BCBS was to exchange common experiences of national regulatory bodies representatives of the Committee to adopt international guidelines and rules for calculating the level of capital reserves for banks. The first agreement was a framework detailing the measurement of capital adequacy and the minimum standards needed to be implemented in the legislation of the member representatives of the Committee or fulfilled by their banks. The first Basel Capital Accord (also known as Basel I) was adopted in July 1988. It was the first important step in building a methodological framework for risk analysis. Established the basic principles for determining the minimum capital requirements to cover only credit risk. Basel standards are evolving along with changes in the financial markets. In fact, in 1993, in order to improve the analysis of credit risk and the need to introduce market risk, Basel methodology was revised. Formula was introduced as a simple linear function:  $\text{MinCapReqCrRisk} = \text{RWA} * 8\% = (\sum \text{Rw}_i * \text{Exposure}_i - \text{exposure}) * 8\%$  for the calculation of credit risk, i.e. the calculation of the minimum capital requirement for its coverage, which should not be less than 8% of risk weighted assets. (BCBS, 2006) Market risk, identified by the banks as a growing source of risk in their operations, imposed also the need to introduce a standardized model for easier assessment. At that time, the major banks had developed their own models to assess market risk based on VaR (Value at Risk) Methodology. These models always resulted in lower required capital reserves than those calculated under the Basel methodology. Therefore, in 1996 the Basel standards succumbed to the new revision, which introduced mandatory calculation of minimum capital requirements for market risks faced by banks.

Unhealthy practices in risk management, especially credit and operational or insufficient differentiation of the different levels of risk in certain areas that encouraged bad lending and investment, played a central role in the Asian financial crisis, which occurred in the period 1997-98. The crisis and the emergence and development of new banking products and tools, new methods for managing banking risks created a need for major changes in the existing Capital Accord of 1988, a revision of existing rules and standards. Under the initiative of the BCBS in 1999, a process of revision of the Capital Accord began with the aim of developing a new framework for determining the capital base. As a result of such trends, in 2004 the introduction of the new Capital Accord aimed at introducing additional discipline to the

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<sup>5</sup> According to the National Bank of the Republic of North Macedonia (NBRNM), Macedonian commercial banks, depending on the size of their assets, are divided into three basic groups: large banks with assets greater than MKD 37.95 billion, medium-sized banks with assets between MKD 9.45 and MKD 37.95 billion and a group of small banks.

<sup>6</sup> Macedonia has fourteen commercial banks out of which ten are foreign bank and one is governmental bank. Questionary was distributed to all fourteen Macedonian banks.

market by promoting new sound practices for risk management. It has strengthened the bond of the risks to the needs of capital for their coverage and offered further processes and methods for covering risks and more flexible approach to risk management through the menu choices. Finally, it become applicable to all banks in the world.

The new Basel Capital Accord II (also known as Basel II) was an evolution of the existing Basel Capital Accord I. According to the new agreement, the amount of capital of the bank is obtained as a function of two factors: the risk profile of the bank and the techniques and methods of risk management used by the bank. Basel II comprises three pillars system which are related to:

- a) In the first pillar mainly three significant banking risks are taking place and that is credit, market and operational risks. In this column offered several approaches to determining the minimum required level of capital to cover these three risks (Pillar 1);
- b) The second pillar is used by banks and supervisory authorities for calculating capital requirements for all other risks that are not covered in the first pillar (eg. Interest rate risk from the banking book, concentration risk, etc.). It is supervisory review process level of capital (Pillar 2);
- c) The third pillar promotes a high level of transparency in in banking operations (market discipline). (Pillar 3).

Unfortunately, liquidity risk has not found its prominent place in the Basel Capital Accord II, i.e. it was neglected. The market turbulence that started in 2007 only emphasized the large role of liquidity to the banking sector. Reduced liquidity in interbank markets and in certain structured products, as well as the return of growing off-balance sheet commitments led to serious liquidity problem and to decline in most banks in the world. The poor and insufficient capital disposable to the international banks represents one more sparkle to fuel crisis. As a result of the global financial crisis, national financial regulators and international financial organizations have taken significant actions to strengthen the financial system and increase its resistance. In this respect, particular importance were the activities of the BCBS. The Committee made changes in different parts of the existing capital framework Basel II agreement and adopted a new draft amendments to the Basel Capital Accord in 2010, also known as Basel III. It consists of two documents: Basel III: Global Regulatory Framework for More Resistant Banks and Banking Systems and Basel III: Global Framework for Measuring and Monitoring Liquidity Risk and Liquidity Risk Standards (Basel, 2010)

The purpose of Basel III was, first, to strengthen the capital framework, i.e. increase the quality and quantity of capital of banks and secondly, the introduction of international liquidity standards. The novelties in the strict standards of Basel III proposed two additional amounts of capital requirement (capital buffer), and mandatory capital requirements and procyclical capital and the introduction of an additional instrument to protect the level of capital the banks expressed through rate of indebtedness. To counteract the rate of capital adequacy, which aims to cover risk assets, the leverage ratio is to cover all assets of banks. The main goal of all changes under Basel III in terms of capital is that the core capital needs to be increased. Namely, ordinary shares and retained profits have proven to be the only one that can be considered to cover losses during the financial crisis. Basel III also allows unification of the definition of capital between the members of BCBS.

In December 2017, the Basel Committee's oversight body, introduces additional changes to the global bank capital requirements and has finalized the Basel III in the new Basel Accord (Basel IV). Regulators argue the changes should not be treated as a distinct round of reforms but simply as completing reforms of Basel III. The new package include elements referring to: revision of standardized approach for credit and operational risk, revisions to the credit valuation adjustment (CVA) framework, limit the reduction in capital that can result from banks' use of internal models (internal rating-based - IRB) for credit risk, higher leverage ratio (leverage ratio buffer) for global systemically important banks (G-SIBs), a standardised floor (aggregate output floor), so that the banks' risk-weighted assets (RWA) generated by internal models will always be at least 72.5% of the requirement under the standardized approach by the Basel III and more detailed disclosure of reserves and other financial statistics. The

revised standards will take effect from January 2023 with the output floor to be phased in over five years and finalized on January 2028.<sup>7</sup>

Table 1: Evolution of Capital Agreements

Basel I	Basel II	Basel III	Basel IV
Focus on a credit risk In 1996 year includes market risk	- Application of internal processes for risk management by financial institutions - Better overview for supervisors - The market discipline	- Strengthening the quality and quantity of the capital - Introducing procyclical allowance for credit losses Focus on liquidity risk	- Finalized Reforms (Revising and completing Basel III reforms in direction towards further strengthening the quality of the capital framework)
Offers measures applicable to all	- Enhanced flexibility and complexity - Incentive for better risk management - Grouping for determining the value of assets and risks - Enhanced sensitivity risk business sectors and classes of exposure	- Tighter capital requirements Scarcity of resistance to potential liquidity problems and protect the long-term structural mismatch of assets - Stronger treatment of hypo. / home loans in foreign currency - Limiting the unsustainable level of growth of the Bank's balances	- Tighter capital and liquidity requirements - Limit the reduction in capital that can result from banks' use of internal models under the IRB approach (credit risk) -Leverage ratio buffer for Systematically Important Financial Institutions
Extensive structure	More dimensional	Less national discretions	Less banks discretions

Source: Summarized by the author

The risk management process is a continuous process that is constantly evolving. As the world changes, the activities of banks change too. And thus, a need for new types of products emerges, but also new ways and practices for operation and new software solutions. The organizational schemes, security policies, etc. are additionally changed. All this leads to the emergence of new risks or recurrence of already existing, controlled risks. Therefore, there is a need for permanent evolution and upgrading of the risk management system, both internationally and domestically.

### 3. NATIONAL CODES OR UNIFIED FORMAT FOR RISK MANAGEMENT

The specific position of the banks in the economy and their central role in the overall growth and development of a country logically imposes the need for high regulation. The regulation of the banking industry is a world trend, which is increasingly intensified. The high regulation of banking is not state and incompatible with the market aspect of operations. On the contrary, it refers to standardization in the work and respect for written and unwritten rules and regulations (Basel standards adopted as a written document or, for example, unwritten rules at the London Stock Exchange). It is about huge liberalization, caused primarily by globalization, the opening of markets, that is, their connection in the world.

The Basel directives and standards as a unified format for risk management at the beginning of their development were a privilege of the ten member countries of the BCBS. However, with their constant adjustment and improvement they became applicable to all banks in the world. Today, the Basel standards are widely accepted by national regulatory authorities in many countries worldwide. The advantage of the Basel standards is that they do not dictate the form or operational detail in the creation of policies and procedures for risk management. BCBS have no supernational force and their conclusions

<sup>7</sup>Initially, the reforms were supposed to take effect from 1 January 2022 (with exception of the output floor to be ended on January 2027). However due to Covid-19 crisis, they are postponed for one year.



have no legal force. They only provide guidance and allow national regulators to develop their own procedures and choose approach to risk management that is most suitable for their financial infrastructure. Additionally, despite the proposed models banks are allowed to develop and use internal models for calculating risks. If banks approach to creating their own models, then they must meet certain qualitative and quantitative standards and be subject to approval by their national regulators. In other words, the strict rules of the Basel standards and directives standardize by each national regulator individually.

The main objective of each national regulator in terms of the process of risk management is to identify and adopt rules and guidelines that can apply with the least possible costs of implementation and to provide protection against possible failures or spillover of individual small banking crises in major systemic problems, that will threaten the entire financial market. In view of the process of risk management, regulators focus primarily on (A Risk Management Standard, 2002):

- market monitoring and supervision of the banking system;
- setting limits for determination of impairment, i.e. special reserve;
- publish data and information on: market values of financial instruments, the movements of financial markets, especially the development of the banking sector, policies for risk management, capital costs, etc;
- site and off-site controls of the banking system, consent to the applicability of the models and the grouping of funds;
- cooperation and exchange of information between regulatory authorities at national and international level;
- developing procedures for action in emergencies.

It is independent of each national regulator's decision whether to approach a unified risk management format (application of international standards and rules) or to seek to establish and apply national regulatory rules and practices in accordance with the needs of its economy.

In a global world we live in today, the regulatory bodies of national economies will inevitably need to respect international rules and standards. Only in this way they will contribute to easier integration into the global financial markets, such as their national and their domestic banks. Implementation, compliance and continuous monitoring of international rules and standards for each national regulator is one of the prerequisites for building the foundations solid domestic banking architecture. In order to strengthen resilience to financial shocks and crises and their spillover international regulators increasingly proceed with introducing strict financial standards. Thus, in countries where risks in the banking sector are high, regulators also determine additional capital, i.e. the calculation of the required capital to cover the risks above the Basel minimum.

#### **4. RISK AND CAPITAL MANAGEMENT IN MACEDONIAN BANKS AND THEIR COMPLIANCE WITH BASEL STANDARDS AND PRACTICES**

The commercial banks in the MK, in accordance with the legal regulations and regulatory requirements, have made significant progress in developing the processes of risk and capital management. From the conducted research (according to which 100% of the banks responded positively), it is known that all Macedonian commercial banks within their business have already implemented an adequate risk management system, i.e. have established special practices (responsibilities, policies and controls) for management of the risks.

Risk management in the banking system of the MK is regulated in accordance with the Risk Management Decision of the NBRNM.<sup>8</sup> The more important elements of the management of individual

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<sup>8</sup> Risk Management Decision published in the Official Gazette of the MK by NBRNM 113/19, 69/20)



risks are defined in special bylaws adopted on the basis of the Law on Banks and appropriate annexes as an integral part of the Decision. The risk management systems differ from bank to bank, i.e. each bank is obliged to establish its own material risk management system to which it is exposed in its operations. In that regard, the risk management system of Macedonian banks is a function of the factors such as: a) size of the bank, b) volume and complexity of business activities, c) level of education of staff, d) quality of bank management and e) application of appropriate information technology.

Banking laws and regulations in the MK are mostly in compliance with the Basel standards recommendations for calculating capital requirements covering risks. Macedonian banks are working under the three pillars concept of Basel II – framework. The assessment of the level of capital required to cover the risks in the Macedonian banking system is regulated by the Decision on the methodology for determining the capital adequacy.<sup>9</sup> By implementing the decision, i.e. by introducing the need to assess the level of capital required to cover operational and market risk, the range of risks for which Macedonian banks are required to determine capital requirements in accordance with Basel II has been expanded.

Regarding the approaches used for regulatory capital calculations, the capital required to cover the credit risk, in accordance with the Macedonian regulations, is determined by all banks only in accordance with the standardized approach (IRB approach is not yet legally regulated). Regulatory capital required to cover the operational risk, is determined by all banks only with a basic indicator or standardized approach (Advance Measurement Approach-AMA is still not legally regulated). From the conducted field research and taking into account the answers given by the questionnaire, it is known that most of the Macedonian banks use the basic indicator approach to the capital calculation needed to cover the operational risk, only a small number of banks from the group of large and medium banks apply standardized approach. The minimum required capital to cover the market risks is legally regulated. However, Macedonian banks have identified the market risk as well as all other risks (except the credit, the operational and the foreign exchange risks) as non material risks and do not calculate regulatory capital for them. This shows that Macedonian banking books are mainly lending books.

By legally defining the process of determining the internal capital of the bank<sup>10</sup>, the legal regulations in the MK was harmonized with the recommendations of the second pillar of the Basel Agreement II for providing a supervisory assessment of the established level of capital. The NBRNM has accepted the recommendations of the Basel Committee for Effective Corporate Governance (third pillar of Basel II), and have implemented them in the Banking Law, the Decision on Basic Principles and Principles of Corporate Governance in Banks<sup>11</sup> and the Corporate Governance Circular in banks.

From the aspect of the calculation and the need for allocation of internal capital to cover the risks, most of the Macedonian banks stated that for all risks that are not treated within the regulatory requirements, the calculation is performed on a cumulative basis. Namely, individual calculation of the required capital to cover strategic, reputation, regulatory, legal risk, money laundering risk, risk of inadequate information systems and risk of using external services is performed by less than 23% of Macedonian banks, primarily banks from the group of large and medium-sized banks. Most of the banks belonging to the group of small banks stated that in their business operations these risks are not identified as materially significant risks, i.e. no internal capital is calculated and allocated for them. The results of the research only confirm that the banks in the MK (especially the smaller ones) have a relatively lower level of sophistication of the risk management systems and the tools at their disposal within that framework. In addition, the small underdeveloped market for derivatives, new electronic products and services (electronic applications and software programs) only confirms the conservative approach to banking by domestic banks.

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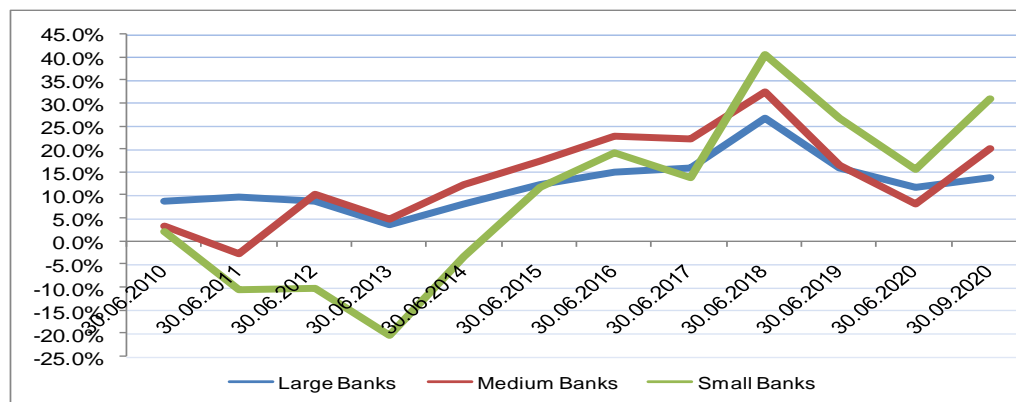
<sup>9</sup> Decision on the methodology for determining the capital adequacy published in the Official Gazette of the MK by NBRNM no. 47/12, 50/13, 71/14, 223/15, 218/16 и 221/18, 181/19, 116/20 и 167/20

<sup>10</sup> Risk Management Decision published in the Official Gazette of the RNM by NBRNM no.165/12)

<sup>11</sup> Decision on the rules for good corporate governance in a bank published in the Official Gazette of the MK by NBRNM 24/18, 113/19)

Compared to the banks in the highly developed countries, Macedonian banks are smaller, with narrow range of activities focused only on commercial loans and products and they most often apply simplified risk management approaches. In other words, Macedonian banks most often apply risk management approaches that are based more on the methodologies (for example: for calculating the capital), prescribed by the regulator with certain additions from a quantitative and qualitative aspect, as well as from the aspect of the range of risks that are subject to scope. The high costs and the need to invest in advanced analysis, decision modeling and optimization, database formation, expertise (trained staff), and development of new ICT, will be a future challenge for banks to properly and efficiently manage all risks taken. The fact that the risk management is mainly focused on the basic risk approaches (credit, operational, liquidity risk) and is still underdeveloped for other risks is likely to imply the need for increased bank development which will incur additional costs. Costs that Macedonian banks are likely to cover either from its own growth (rise of average return on equity-ROAE rates) or by outside investments. The chart below shows the rate of return on average capital by groups of Macedonian banks, from which it can be seen that the rate decreased in each of the above groups of banks, especially in the time frame of implementation of Basel II (2012-2013) and Basel III (2017-2019) standards.

Figure1: Average return on capital by groups of banks



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

Amendments to the Banking Law on October 2016 and the amendments to the Regulation on the methodology for determining the capital adequacy from December 2016-17, enable the full harmonization of the domestic regulations with requirements of Basel III in relation to:

- the obligation to maintain protective layers of capital and
- structure of banks' own funds, as well as with
- the relevant provisions of European regulation 575/2013 on prudential requirements for credit institutions and investment firms.

The most significant change to the Law refers to the obligation for banks to maintain the so-called protective layers of capital. The main objective of the protective layers of capital is to provide increased protection of the banks' solvency position, especially in conditions of significant increase in the realized losses. There are four types of capital buffers prescribed:

- a) capital conservation buffer determined at the level of 2.5% of the risk weighted assets;
- b) counter-cyclical capital buffer which may amount up to 2.5% of the risk weighted assets, or higher, depending on other systemic indicators and aims to limit risks associated with the credit growth.

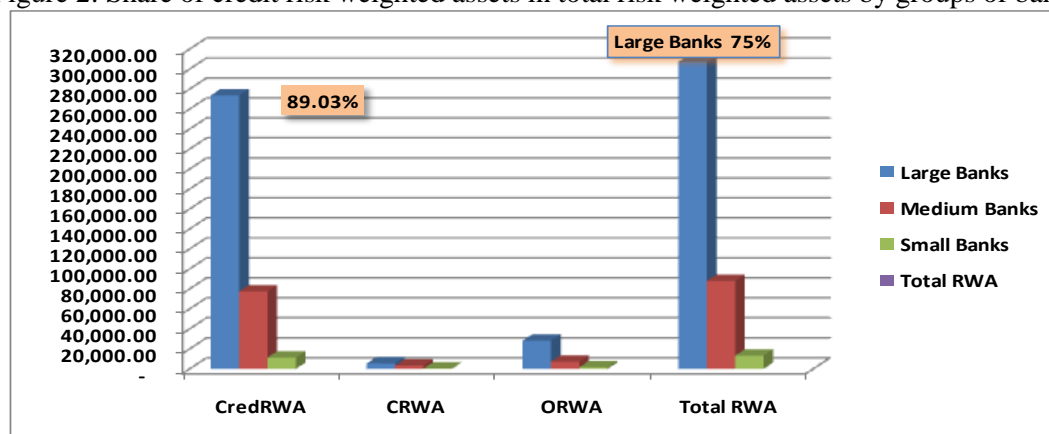
- c) the three systemically important banks identified by NBRNM should achieve a protective layer of capital (capital buffer) for systemically significant banks in the interval between 1% and 3.5% of the risk weighted assets; and
- d) systemic risk capital buffer which may range from 1.0% to 3.0% of the risk weighted assets and is introduced by the Governor of the NBRNM in order to limit the risk of disrupting the financial system or the national economy. This capital buffer can be different for different banks or groups of banks.(NBRNM, 2020)

According to the existing Macedonian regulation, the adequate level of capital required to cover the risks with Macedonian banks is the sum of the capital required to cover the:

- credit, foreign exchange, operational risk, as well as for market risks;
- settlement / delivery risk;
- risk of the other contracting party and the risk of price changes of goods;

The capital requirements for risk coverage in almost all commercial banks in the MK are mainly based on credit risk analysis. Namely, credit operations are the most dominant activities of Macedonian banks. Most of the assets of the Macedonian banks are affected by the credit risk, i.e. most of the impairments are a result of this risk (assets weighted according to credit risk as of June 30, 2020 participate with 89.03% in the total assets weighted at risk level of the banking system of the RNM). One can conclude that the credit risk of the Macedonian commercial banks is still the primary risk in their operation.

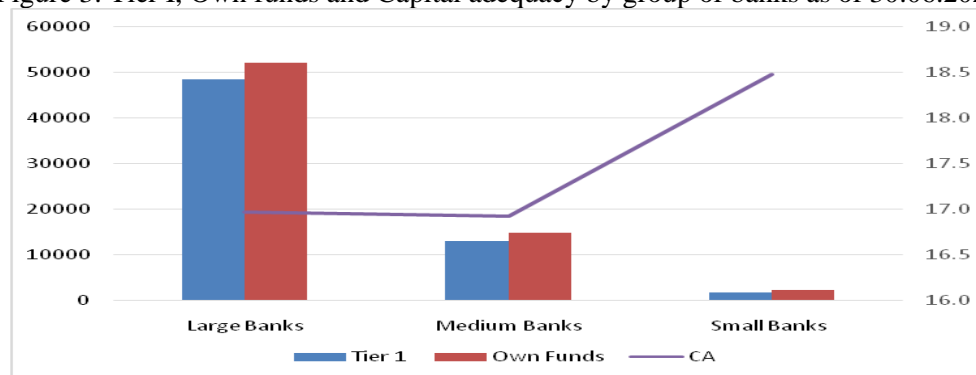
Figure 2: Share of credit risk weighted assets in total risk weighted assets by groups of banks



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

According to the existing Decision on methodology for determining the capital adequacy, the structure of the core capital is harmonized with the proposed changes in the capital framework under Basel III. Namely, the share capital can consist only of items which in accordance with the new capital requirements are defined as common share capital. Therefore, it can be expected that the Macedonian banks meet the new rates of capital adequacy, stated in the proposed reform. In order to check such expectations, an analysis follows the current capital ratios in the Macedonian banking system. The analysis was conducted by groups of banks (large, medium, small) based on semi-annual data for the period from 2015 to 2020.

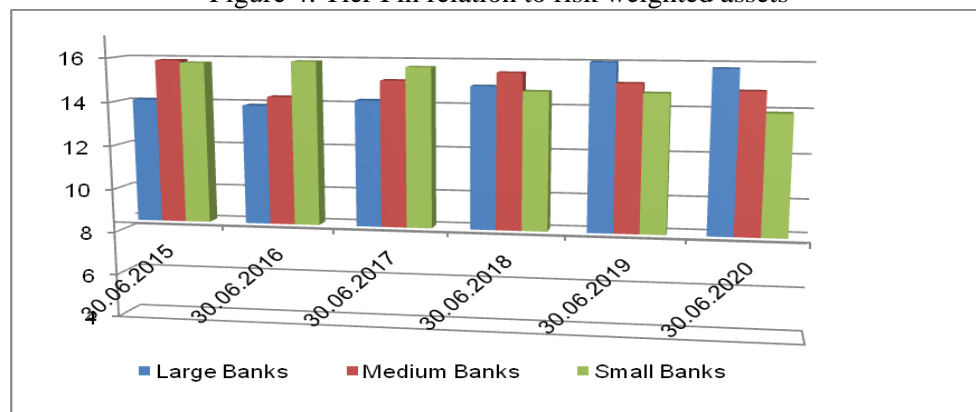
Figure 3: Tier I, Own funds and Capital adequacy by group of banks as of 30.06.2020



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

Macedonian banks have increased the level and participation of the basic elements in the Tier I. Analyzed by group of banks as of 30.06.2020 Regular core capital (Tier I - Common Equity), that according to the Macedonian legislation should be min 4.5% of the risk weighted assets, amounts to around 15.8% in the large banks, 14.4% in the medium banks, 13.9% in the small banks. Core capital (Tier 1), that according to the legislation should be min 6% of the risk weighted assets amounts from 15.8% in the large banks, 14.8% in the medium banks, 13.9% in the small banks. The results in chart 4 below shows that the core capital rate of all groups of Macedonian commercial banks in the entire analyzed period of time is a satisfactory indicator and is above the rates provided by the proposed reform of Basel III. The slight decline in the group of small banks is primarily due to the increase in risk weighted assets and recapitalization by investing in Tier II.

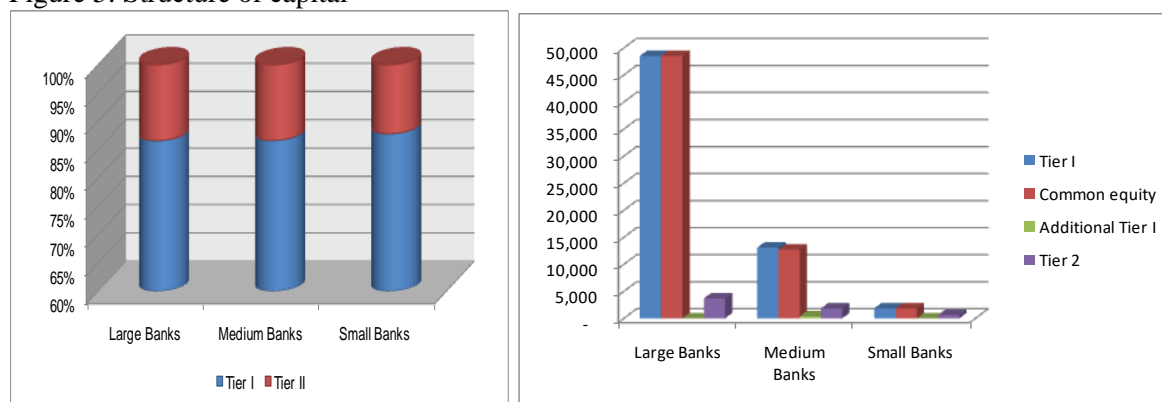
Figure 4: Tier I in relation to risk weighted assets



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

Analyzed from the aspect of the types of capital (core and additional) and their share in the total capital, it can be concluded that Macedonian banks (especially the group of large banks that cover 75% of the total banking risk weighted assets) have relatively high quality capital. Hence, in the structure of its own funds, as it is shown in the Chart 5 below, dominant position has the Tier I (bank's common equity capital). Namely, in all banks the share of the core capital (Tier I) of the total capital is over 75% (in the group of large banks 93%, in the group medium-sized 87% and small banks 75%). The share of additional capital (Tier II) in the total capital is below 20% (in the group of large banks 7%, medium-sized banks 12% and in the group of small banks 24%)

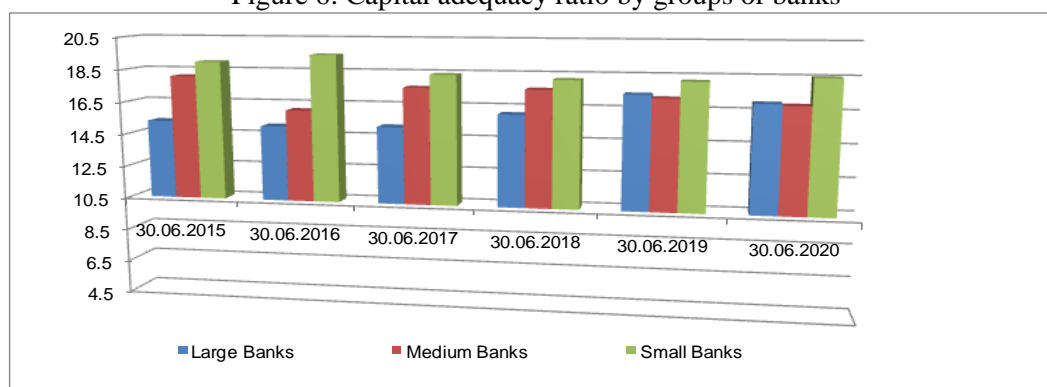
Figure 5: Structure of capital



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

Similar results can be obtained if the values of the capital adequacy ratio of Macedonian banks are analyzed.<sup>12</sup> Analyzed in the past five years by groups of Macedonian banks, the capital adequacy ratio tends to increase. At the end of the second quarter of 2020, the capital adequacy ratios of the three groups of banks ranged from 17% in the group of large banks, 16.8% in the group of medium-sized banks to 18.5% in the group of small banks. Namely, as it demonstrated in the chart 6 below, they are not only within the legally prescribed minimum of 8%, but are also above the rate of 10.5%, according to Basel III. Compared to 2015, the capital adequacy ratio rose by 11% in the group of large banks and decreased by 6.6% in the group of medium-sized banks and 2.6% in the group of small banks, respectively.

Figure 6: Capital adequacy ratio by groups of banks

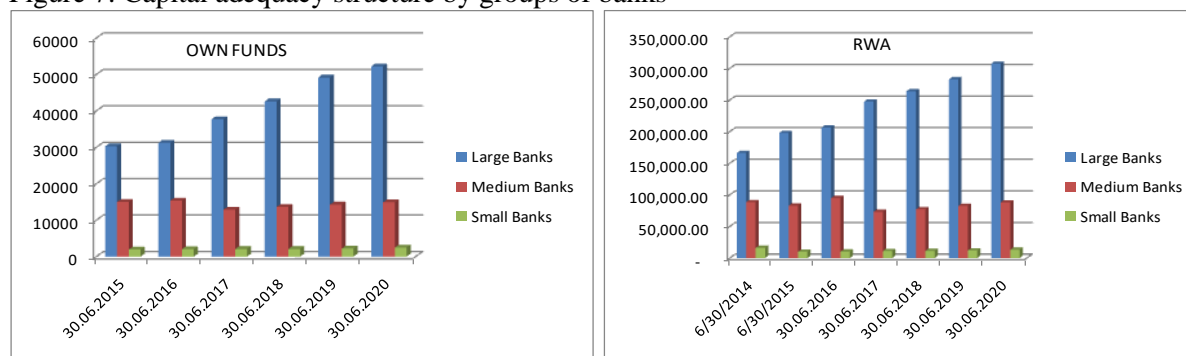


Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

Analyzed in terms of own funds and risk-weighted assets, it can be concluded that the decrease in capital adequacy, i.e. the weakening of the solvency position, especially in the group of small and medium-sized banks, is primarily a result of increased risk-weighted assets and a slight decline in own funds at the medium-sized banks.

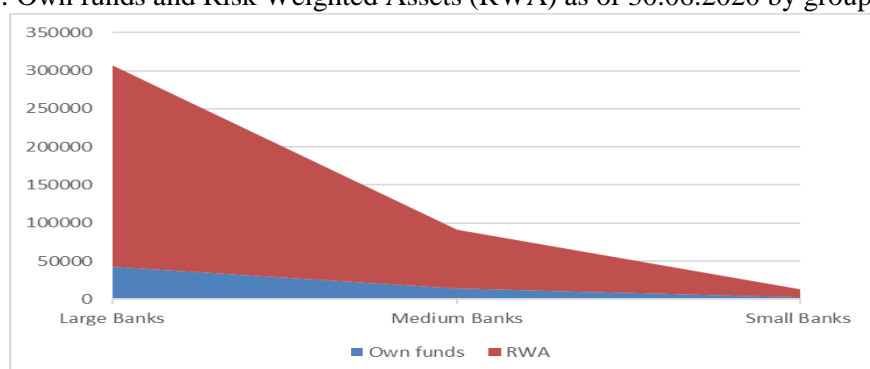
<sup>12</sup> According to the Decision on the methodology for determining the capital adequacy regulatory, all Macedonian banks should have capital adequacy ratio no less than 8%.

Figure 7: Capital adequacy structure by groups of banks



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

Figure 8: Own funds and Risk Weighted Assets (RWA) as of 30.06.2020 by groups of banks



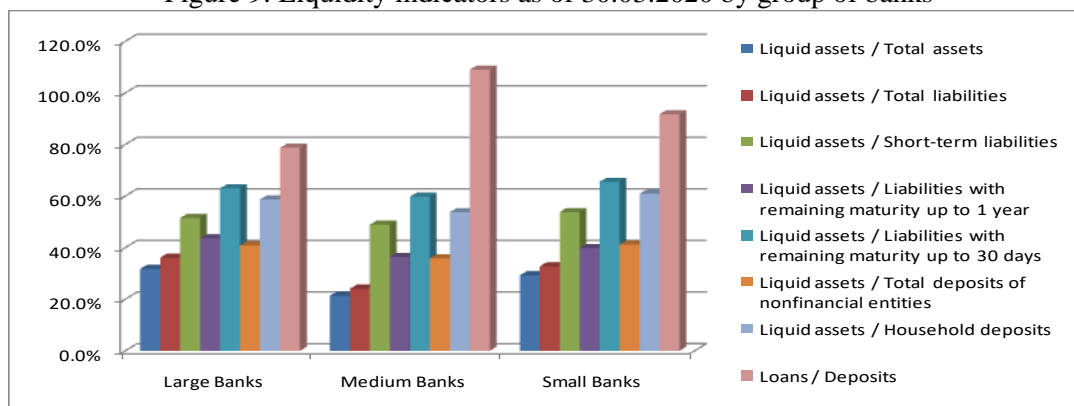
Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

As of June 30, 2020 the group of large banks (five banks) covers 75% of the Own Fund and 75.21% of the RWA of the total Macedonian banking sector. Macedonian banks meet the newly prescribed rules under Basel III for the capital adequacy ratio, in terms of both capital quality and quantity. The same conclusion applies to the rate of indebtedness (leverage). Regarding the leverage ratio (leverage ratio) which is introduced by the Basel standards as an additional instrument for protection of the level of capital of banks, all Macedonian banks are above the proposed minimum leverage rate of 3%. Namely, as of June 30, 2020, the rate calculated as the ratio between the share capital and the total balance sheet and off-balance sheet assets of the banks has the same value in the group of large and medium-sized banks 10.5% whereas in the group small banks it also reaches the approximate value of 10.7 %. The results of the analysis show that the level of indebtedness in the MK is approximately the same in all three groups of banks, despite the fact that large banks finance most of their activities with other sources of funds.

Macedonian banks are in the process of introducing the new liquidity standard within Basel III, which aims to strengthen the short-term resistance of banks to potential liquidity problems and protect them against long-term structural mismatch of assets and liabilities. In May 2020, NBRNM has announced the new Decision on liquidity risk management methodology which determines the scope and elements of liquidity risk management. The Decision will enter into force and be applicable as of January 01, 2021. Activities are in progress in regards with issuing the Guidelines for implementation of the Decision on liquidity risk management of banks to comply with the requirements related to the introduction of liquidity standards. With the latest amendments to the Risk Management Decision (2019) which defines the process of determining the internal liquidity of the bank, the legal regulations in the MK have been additionally harmonized with the recommendations of the Basel Agreement, regarding liquidity risk.



Figure 9: Liquidity indicators as of 30.03.2020 by group of banks



Source: NBRM, Banking Supervision and Regulation, Reports on the Banking System of the Republic of Macedonia, [www.nbrm.mk](http://www.nbrm.mk)

In the first quarter of 2020, the liquid assets of the Macedonian banking system and the liquidity indicators declined moderately. However, the liquid assets available to the Macedonian banks are still in a satisfactory volume, which enables them to properly and adequately manage the liquidity risk and to perform their business activities smoothly. The share of liquid assets in total assets remains relatively stable (at the level of about 20% at the level of small banks up to 30% in the group of large banks), and the coverage of short-term liabilities with liquid assets is satisfactory as well (which remained at the level of about 50% in large and medium-sized banks and 48.9% in small group banks). The level of indicators through which liquidity is monitored and assessed (as shown in the chart 9 above) indicates proper liquidity risk management by Macedonian banks.

Basel IV is not yet subject to regulatory analysis in the Macedonian banking system. Namely, some of the elements regulated under the new standard (eg. IRB approach for minimum capital requirements for credit risk) are neither legally regulated nor applicable by the Macedonian banks.

All further changes in the regulations and the existing efforts of the NBRNM to further strengthen the capital position and solvency of banks in order to harmonize them with international capital agreements, will certainly affect Macedonian banks to face a possible need for recapitalization. Unlike large banks, where operating costs account for 42.7% of their total income, in the group of small (72.3%) and medium-sized banks (71.8%) these percentages are significantly higher. Employment costs (which are about 45% of the operating costs of almost all three groups of banks) in the total regular income participate with as much as 35.8% in the group of small and 32.6% in the group of medium banks as of June 30, 2020. According to the analyzed results, the price for the growing strengthening of the stability and resilience of the Macedonian banking system will be paid most by the group of small and medium sized banks. They will have to approach faster growth and development as soon as possible by exploring available cost-effective solutions or merging or taking over by larger banks.

## CONCLUSIONS

In order to integrate more easily into the global financial markets, all banks, including domestic ones, will inevitably have to comply with international rules and standards. Specifically, the introduction of international rules and standards, the observance and constant monitoring of the universally accepted written and unwritten rules and customs are among the basic preconditions for building a solid domestic banking architecture. The identification and application of contemporary and more efficient ways, methods and techniques for managing risks and capital in banking operations should help Macedonian banks to increase the efficiency and profitability in their operations, i.e. to noticeably implement their strategic goals and determinations towards an expanded, more stable and more competitive banking sector. A well-established legal and institutional framework, a proper organizational set-up, adequate

control and audit during the risk management process contribute to safe and, stable operation of the bank, and is a prerequisite for its future development.

Banks that successfully match the innovations with the strong regulatory requirements will be able to achieve profitable growth and be unattainable by their competitors. Otherwise, banks will not be able to withstand the pressure of modern operations and will be easily pushed out of the financial market. Consistent and timely monitoring of internationally recognized experiences, and the application of universally accepted standards and codes of banking, by both international and Macedonian banks is a necessary step to strengthen the domestic financial landscape.

Macedonian commercial banks in accordance with regulatory requirements, show significant progress in developing risk and capital management processes. The legal regulations in the country regarding Basel standards and practices of risk management, as shown in this paper, are largely in line with the proposed recommendations of the Basel agreements and directives. Nevertheless, the alignment are not in full and occurs with a delay of five to seven years. Unlike the BCBS member states which have time frames for compliance of several years, Macedonian banks are faced with the need to quickly adapt to the new legislation requirements in shorter periods of time. Regulators should always bear in mind that the application of the Basel Standards brings significant additional activities and generates costs for the banks in the process of their implementation. Many regulatory requirements mean a huge burden on banks, leading to reducing of their current profitable activities and making them less cost-effective. As confirmed by this research, the amendments in the legislation in 2012-2013 and 2017-2019 had a enormous impact on the capital position of the Macedonian banking sector (especially with the group of small and medium banks). The practical application of the new Basel agreements constantly requires: a cumulative increase in the capital strength of the bank, vast preparations and possession of know how both for the financial regulator, the supervisory bodies as well as for the banks, significant legal and regulatory changes, application of modern technology as well as intensive international cooperation between the relevant authorities. Therefore, there is a need for close cooperation between regulators and banks towards proper assessment of the benefits from the application of the Capital Agreements, in terms of setting the time frame and the domestic banks' readiness for the existence of healthy inputs for the practical application of the regulations.

Today, the Macedonian economy is facing numerous challenges related to the coronavirus pandemic. From the aspect of the origin of the capital, about 83.2% of the banking system in Macedonia (or a total of 10 banks) are with dominant foreign capital. The weak economic performance and the decline in the activities of the euro area banks, which are expected as a result of Covid-19, will broadly affect the slowdown in the economic growth of the country, and this should further influence the overall activities of the Macedonian banking system.

Macedonian commercial banks will face continuous challenges in terms of the need for permanent strengthening of their liquidity and solvency and especially in controlling the level of core capital, both in terms of the domestic economy and in terms of global developments. Only those banks possessing high rates of deposit savings and equity capital can be immune from economic and financial crises and their overflows. The strengthening of the core business income (net interest income and, above all, net commission income) along with the slower growth of operating expenses, as well as the growth of the loan portfolio (especially small loans), can only mitigate the consequences of declining quality of the loan portfolio and the growth of capital requirements. Nevertheless, banks can make significant improvements in performance and average return on capital, particularly through improved capital and risk management.

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# **ORGANIZATIONAL CHANGE - IMPORTANCE AND EFFECTIVE MANAGEMENT OF CHANGE**

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## **ABSTRACT**

Organizational change is of high significance for all organizations. It can be considered as a procedure through which an organization directs its performance toward reaching its ideal state. Organizational change comes as a result of an ever-changing environment, a reaction to a crisis situation currently occurring, or is triggered by a leader. Successful organizational change is not just a process of adapting and adjustment, but also requires sufficient abilities and skills for managing. However, there are many issues to be tackled in order to achieve successful change. Hence, this project paper elaborates on what causes organizational change, approaches, its process and elements, then resistance and how to manage it and lastly the possible factors that might lead to its collapse.

## **KEYWORDS**

organizational change, organizational development, causes of organizational change, processes of organizational change, resistance, management of organizational change

## **JEL classification**

M12, M14

## **1. INTRODUCTION**

Every organization will come to a position where it will need to face any type of changes and most of these changes are brought about by management fads. Consequently, management fads incorporate in itself change in the process of doing business, culture, engineering, total quality as well as empowerment. On the other hand, several other changes are conducted by the organizations taking into consideration the competitive conditions. However, records show that strategic changes are actually poor within companies. This comes because of failing to understand that to formulate the plan of change is more important rather jumping directly into implementing the change. Changing the ways and manners of how people behave in the organization is the first step towards making a truly strategic change.

The ways on which the managers should concentrate on for a strategic change are three. Firstly, it is important to realize the behavior, attitude and the culture employees' exhibit. Second, designing the implementation of the change efforts to fit organizational context will lead to less stressful situation. Thirdly, changing people is what actually matters not changing the organization itself because employees and managers are the major part of any organization that would bring the pattern's change of conducting the business. A change in the entire setup of a company implies change in the way of thinking, way of doing, what they want to achieve, how

they want to achieve. A strategy in organization's context involves changes in terms the resources they have employed, the scope of the company and the competitive advantage they have on the competitor. While, strategic change incorporates change in terms of production quality and its difference it provides with the competitor's products. In harmony with the definition of strategic change, organizations and their external environment are the ultimate drivers of strategic change. The reason behind this is that the robust between organizations and their external environment forces like the existence of opportunities and threats, dictates the overall performance the firm depends upon. In other words, due to change in the forces of external environmental, organizations would most probably change their strategy to respond to these changes.

## 2. WHY IS CHANGE IMPORTANT IN AN ORGANIZATION?

In today's fast-moving environment, trying to keep up with the pace of change to any business is likely to be truly disappointed. In fact, organizations should embrace change. The importance of change for any organization comes as a result of seeing that any business would likely lose the competitive edge and fail to meet the demands of what most think to be a mounting base for gaining loyal customers.

Organizational change happens when an organization makes a transition from its present state to some desired upcoming state. Additionally, today's business environment requires firms keep up with changes almost constantly if they wish to constantly remain competitive. Factors such as globalization of markets and rapidly evolving technological advancements force businesses to respond in order to survive. Changes of this kind may be relatively minor like installing a new software program or bigger changes like refocusing an overall marketing strategy, transforming a company in the face of persistent foreign competition and fighting off an antagonistic takeover.

Organizational change initiatives often emerge out of problems faced by an organization. In several cases, however, organizations change from the forward motion of enlightened leaders who first identify and then develop new capabilities dormant in the organization or its state of affairs. However, organizational change might fail or result in resistance by the personnel. The failure might be due to the approach in which change has been foreseen, announced, and implemented or because internal resistance to it. Employees, in other words, interrupt those changes if they perceive them as adversative to their own interests.

## 3. THE DIFFERENT TYPES OF ORGANIZATIONAL CHANGE

Responding at its best to changes is not an easy task at all due to the availability of choices that exist on how one could approach them. Several types of change exist which managers can adopt with the aim of helping companies achieve desired future status. On the whole, types of change fall into two broad categories: evolutionary change and revolutionary change. Evolutionary change manifests itself gradually, alternating, and focused in a narrower way. (George & Jones 2007; Miller, 1980-1982<sup>13</sup>. Its main principle is to make continuous improvement in order to fiddle with the environment changes (Wick, & Quinn, 1999)<sup>14</sup>.

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<sup>13</sup> George, J. M., & Jones, G. R. (2007). *Understanding and Managing Organizational Behavior* (5rd) New York: Pearson Education, Inc.

<sup>14</sup> Wick, K. E., & Quinn, R. E. (1999). *Organizational change and development.*- *Annual Review of Psychology*, 50, 361-386.



Revolutionary change manifests itself in a more rapid, vivid, and focused in a broader way. It often occurs when the present operation scheme can no longer accomplish the demand of the external environment, and a noteworthy change has to be made in a short period to keep the organization work. The most far and wide known types of evolutionary change is the theory of socio-technical systems, management by objectives and total quality management (George, & Jones, 2002; Yang, Zhou, & Yu, 2009)<sup>15</sup>. The theory of socio-technical systems stresses out the significance of the social and technological views within the organization along the process of change. With other words, it gives the accent to the development of the most advantageous partnership between members of the organization and the technology. Next, management by objectives specify the weight of regular meetings between management and its subordinates. The objective is to evaluate work performance, assess future work goals and thrash out challenges and barriers in an endeavor to motivate work efficacy and coherence (Cummings, & Worley, 2001)<sup>16</sup>.

There are also three crucial types of revolutionary change: reengineering, restructuring, and innovation (George, & Jones, 2002)<sup>17</sup>. First, reengineering involves the essential rethinking and fundamental redesign of business processes to accomplish dramatic improvement in serious, contemporary actions of performance such as quality, cost, service, and speed (Hammer & Champy, 1993)<sup>18</sup>. In addition, when organization experiences a quick worsening in performance, managers may attempt to turn things around by reform and reorganization. For instance, a company tries to make straightforward its organizational structure by eliminating divisions, levels in the hierarchy or departments; and downsizing employees to lower working costs. Innovation as it will be more thoroughly elaborated in the project later on, is the successful use of skills and resources to construct new technologies or fresh goods and services so that an company can change and better response to the demands of customers (Jones, 1988)<sup>19</sup>.

#### 4. AREAS OF ORGANIZATIONAL CHANGE

Each area, of course, is interrelated with the other and companies often must apply changes each of them when they endeavor to make changes in one. Strategic change for instance, can happen on a large scale when an organization shifts its resources to penetrate a new line of business or on a small scale for instance, when a company makes productivity improvements in order to lower the costs.

##### 4.1. Technology

Technological changes usually represent the apparatus of greater strategic changes, although they sometimes take place on their own. A crucial aspect of changing technology is deciding who in the organization will be endangered and threaten by the change. To be successful, a technological change must be implemented into the organization's overall systems, and the structure of the management must be developed to support it. Moreover, structural changes can also happen due to strategic changes - as in the case where an organization decides

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<sup>15</sup> George, J. M., & Jones, G. R. (2002). *Understanding and Managing Organizational Behavior* (3rd) New York: Pearson Education, Inc.

<sup>16</sup> Cummings, T. G., & Worley, C. G. (2001). *Organization Development and Change*. Cincinnati, OH: SouthWestern College Publishing.

<sup>17</sup> George, J. M., & Jones, G. R. (2002). *Understanding and Managing Organizational Behavior* (3rd). New York: Pearson Education, Inc

<sup>18</sup> Hammer, M., & Champy, J. (1993). *Reengineering the Corporation*. New York: HarperCollins.

<sup>19</sup> Jones. (1988). *Organizational Theory*. In Burgelman, R. A., & Maidique, M. A. *Strategic Management of Technology and Innovation*. Homewood, IL: Irwin.

to get hold of another business and must integrate it - as well as due to changes in a managerial style or operational changes. For instance, a company that wanted to execute more participative decision making may require changes in its hierarchical structure. Changes in the people or employees is a necessary action to be taken due to other changes, or sometimes companies only look for change in workers' attitudes and behaviors in order to rise their effectiveness or to inspire individual and team creativeness and hard -work. Usually people changes are the easier said than done type of changes and vital part of the overall change process. So, the science of organization development was created to arrange on changing people on the job through various techniques like education and training, career planning and team building.

#### **4.2. Customer Needs**

A world constantly evolves and together with it customer needs grow and change as well, opening new requirements for new types of goods and services and creating new areas of opportunity for organizations to meet needs.

#### **4.3. The Economy**

The impact of the area of economy is great to organizations, the influence can be stressful and manifested in both positive and negative ways. Expansion incorporating additional personnel, facilities and resources must be taken into consideration, if there is a strong economy and rising demand for goods and services. Opportunities for staff brought about by these changes are very precious and beneficial, but also represent new challenges to deal with. On the other hand, a weak economy gives an open way to more problems as organizations find themselves obliged to make hard decisions that can blow employees' salaries and benefits and even threaten their jobs. At this point what is crucial for companies is the ability to quickly manage both ends of the continuum in order to maintain a powerful brand and strong relationships with consumers/customers as well as employees.

#### **4.4. Growth Opportunities**

Change is important in any company because in this way employees learn new skills, exercise their creativity in ways that ultimately benefit the company through fresh ideas and increased commitment and it also offers chances to them explore new opportunities. Basically, preparing employees to confront successfully with these changes includes a deep analysis of the tools, methods and training needed to help them acquire new skills. Moreover, training can be provided through both ways traditional and online. Traditional classroom settings, for instance, are still practiced or, increasingly, through different online learning opportunities in the form of courses. Significantly, companies need to do a well-obtained job of evaluating employees' skills and capabilities and then undertaking necessary steps to fill the gaps between present skills and the skills required to respond to growth.

#### **4.5. Challenging the Status Quo**

To affect the bottom line directly, a simple burden of asking the question 'why?' can produce many answers leading to fresh ideas and innovations. Organizations benefit from change that whose outcomes create new ways of looking at customer needs, new ways of strengthening customer interactions, new ways of delivering customer service and new products that might attract new markets where a company can in turn penetrate. Furthermore, new employees joining a company are especially important and valuable because they can often point to areas of

opportunity for improvement rather than those who have been involved for a longer period in the organization and who may have overlooked. However, even existing employees/workers should be encouraged and motivated to question why things are done in a particular way and search for new ways to get the tasks and work done faster, better and with greater levels of outcome, quality and service.

## **5. TOTAL QUALITY MANAGEMENT**

The process by which management and employees are engaged and involved them self in the constant and day by day improvement in products and services is defined as Total Quality management<sup>820</sup>. The fundamental aim of the TQM is to boost the business towards higher levels by the combination management apparatus and quality and to avoid as much as possible the unnecessary outcomes that happen due to wasteful practices. Additionally, in TQM the word quality is a trait that describes the attitude and behavior and the overall culture of a company, striving to provide better services and goods to their customer. The whole philosophy integrating all organizational functions should direct it energy and focus on the satisfaction of customer needs. Besides, TQM shows the way to constant improvement in all aspects of the business that definitely causes the continuous improvement in capabilities of people, procedures and processes, technology and machine capabilities.

### **5.1. Elements of TQM**

The process of TQM incorporates several elements that are being used by a company. These are:

- Involvement of leadership and upper management
- Vision, mission and guiding principles
- Job-related skills training, communication, teamwork and leadership
- Improvement of the overall communication
- Customer satisfaction
- Focal point is improving the working environment
- Struggle for continuous improvement

## **6. INNOVATION AND CHANGE**

Innovation has to be supported by collaboration, ideation, implementation and value creation.

### **6.1. Collaboration**

Teamwork is crucial to getting things done. Nowadays the global and digital 24/7 world, challenges are more complex; it's becoming highly important to bring more diverse and fresher minds to the table and to break down silos.

Collaboration is one kind of group activity familiar to community development. In addition, there is no shortage of initiatives which intend to be two-way. It is true that collaboration has never been easy, mostly because competition and conflict within and among teams dominates the scene. As everyone tends to avoid tension, what we actually may be left with in communities is peaceful coexistence, and not collaboration. Furthermore, it may be a good time for re-thinking

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<sup>20</sup> Kristen Terry (2010)

collaboration as collaboration means to work together on the relationships towards a well-prepared process in achieving common outcomes.

## 6.2. Ideation

Fresh, new ideas help your organization stand out. With passionate competition for resources, companies must differentiate in order to survive. Mark Lange<sup>21</sup>, was the presenter in the session entitled "Accelerating Entrepreneurship and Its Impact on Community and Economic Development."

The Edward Lowe Foundation makes use of ideation to elaborate entrepreneurship in the form of economic development strategy. Lange says:

- Companies headquartered out of the state do not provide much more influence on job creation than the local businesses
- Taking care of second-stage businesses is highly important to job growth
- Business relocation has not a much larger impact on job creation compared to business expansion.

## 6.3. Implementation

How good are the ideas if they are not practiced? Organizations must appoint the best people to champion their ideas and keep boosting those good ideas moving forward. So, there is no shortage of conversations on how technology is changing lives and how technological innovations and advancements are being implemented at the speed of light.

## 6.4. Value Creation

If the new ideas are able to create value that's when you have created an innovation. Companies must implement ideas and programs identified as most efficient and effective in delivering value to all involved stakeholders.

The main purpose of innovation is to create business value. Value is explained in many ways, such as the creation of entirely new goods and services, incremental improvements to existing products or cost reductions. Businesses strive to create value because their survival, growth and ability to compete in a speedily changing market highly depends on whether they innovate effectively<sup>22</sup>.

## 7. MANAGING ORGANIZATIONAL CHANGE

Planning and implementing change in organizations in such a way as to minimize employee resistance and cost to the organization while simultaneously maximizing the effectiveness of the change effort are all elements within the process of effectively managing organizational change.

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<sup>21</sup> executive director of the Edward Lowe Foundation

<sup>22</sup><https://www.stlouisfed.org/publications/bridges/summer-2009/the-four-key-elements-of-innovation-collaborationideation-implementation-and-value-creation>

## 7.1. Resistance to Change

In the procedure of a change, no matter how small, the manager should expect to expect some resistance from within the organization. Resistance to change is considered as normal phenomenon; people stick to habits and to the status quo most of the time. However, resistance can be minimized by good managerial actions. In addition to this, people must be motivated to shake off old habits. This must occur in stages rather than suddenly so that "managed change" is manifested as "natural change." Moreover, to normal inaction, organization change introduces anxieties about the future and if future after the change comes to be perceived positively, resistance will be present in a lower extent.

Key ingredients in minimizing negative reactions and feedback are education and communication. Employees can be informed about both the logic behind it before it takes place through, group presentations, or individual discussions, reports, memos and the nature of the change as well. Another important component of overcoming resistance is inviting employees to involve themselves and participate in the process of the design and implementation levels of the change effort. What can be deployed, are organized forms of facilitation and support. Managers can make sure that employees/workers will have the resources and tools to bring about the change. Furthermore, managers can make themselves available to provide explanations and to minimize stress arising in many angles of situations.

Some organizations manage to overcome resistance to change through negotiation and rewards. They offer employees very concrete incentives to make sure their cooperation is guaranteed. Other organizations resort to using subtle tactics such as giving a resistance leader a prominent position in the change effort, which in other words can be called manipulation. A final option is coercion, which comprises of practices such as punishing people who resist or using force to ensure their cooperation. Although this method can be useful when rapidity is of the essence concern, it can have quite negative effects on the organization. Of course, no method is convenient and appropriate to every situation that might happen in the company, and a number of different methods may be combined if they promise better results.

## 8. FORCES IN ORGANIZATIONAL CHANGE

According to Lewin's model of force-field analysis, a company is an open system. There are two forces in organizational change (Lewin, 1951)<sup>23</sup>, one it is the driving force - switching of the company to a totally new direction; while the other it is the restraining force - preventing the company from changing. In situations when the driving force is more powerful than the restraining force, change in the company occurs, and the company will shift towards a new direction, while when restraining is more powerful than the driving force, organization will stay at the existing position; and when both of these forces are equally powerful and balanced, it will stay stable for some limited period. Additionally, when organization is about to change, there are various forces to prevent them from change, which is the above-mentioned restraining forces. Moreover, restraining forces can be divided into three levels: individual level, secondary unit level, and organization level. (Yang, Zhuo, & Yu, 2009)<sup>24</sup>. These factors mentioned in the level of a company include the organizational structure inactivity, system anxiety and the pressure from past success as well as managerial culture. Next factors in secondary unit level include the different point of view and conflict of interest arises between different departments. First, factors

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<sup>23</sup> Lewin, K. (1951). *Field Theory in Social Science: Selected Theoretical Papers*. New York: Harper & Row.

<sup>24</sup> Yang, R. S., Zhuo, X. Z., & Yu, H. Y. (2009). *Organization theory and management: cases, measurements, and industrial applications*. Taipei: Yeh-Yeh

in individual level include the lack of trust, misunderstanding, own benefit threat feeling, uncertainty, custom and so on so forth. The question arises on how to manage such factors that may threaten the successful change of the business. The active ways to gain the support of organization's members are through communication, education, involvement and active participation. On the other hand, the passive ways to diminish members' resistance are the following acts: negotiation control, assistance, and coercion (Kotter, & Schlesinger, 1979)<sup>25</sup>. These represent the most effective methods and approaches in different situations. Therefore, the supervisor must manage the organization change at all steps.

### 8.1. Techniques for Managing Change Effectively

Moving the business from its present state to a future desired situation at lower costs to the company is actually effective and successful management of the change. Key steps in that process are:

1. Considerate attention on the present state of the company -this means to identify problems and troubles the company faces right now. All these problems should be given a priority according to its state of urgency and assessing the sorts of changes needed to solve the particular problems.
2. Proficiently envisioning and thoroughly structuring the state of the company which is desired - this point is when you basically picture the ideal condition for the company after the change is implemented, transmitting this vision clearly to everybody involved in the process of change effort, and scheming a resources for transition to the new state. An important part of the transition in this phase is to be able to manage stability and other components such as key staff together with the organization's overall mission, which should remain steady in the center of chaos to help people decrease the level of stress and anxiety.
3. The order in the implementation of change is crucial – supervising and dealing effectively with the transition may be useful to design a plan, find the necessary resources, and employ a key individual to take care and be constantly in charge of the change process. The leaders of the company should attempt to produce enthusiasm and euphoria for the change by sharing their visions, aims and goals, and acting as role models. In some cases, it might be beneficial to direct energy for smaller victories first in order to open the way for later greater successes.

Of course, change is natural. A more creative way of facing with the dynamisms of transformation in industries rather than watching them happen in a chaos way, proactive management of change better adapt with the future is invariably a more required process that will show greater results with the help of the organization's human resources management rather than without them.

## 9. WHY DOES ORGANIZATIONAL CHANGE FAIL?

According to a research conducted by McKinsey (Isern & Pung, 2007)<sup>26</sup>, 38 percent of the interviewees responded that the change implemented in their company successfully increased their performance in the work, and 30 percent responded that they think the change within the organization has managed to provide a long term health in the overall business process. This is a result of several factors that have considerable effects on either success or failure of the business.

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<sup>25</sup> Kotter, J. P., & Schlesinger, L. A. (1979). *Choosing strategies for change*. Harvard Business Review, 57, 106-114

<sup>26</sup> Isern, J., & Pung, A. (2007). *Harnessing energy to drive organizational change*. McKinsey Quarterly, 1, 16-19.



The six most vital factors are the following: the reluctance or readiness to change, quick solution expectation, lack of systematic plan for organization change, the spotlight of change activity instead of result, mismatch between change plan and company context as well as generally poor management in the whole change process (Yang, Zhuo, & Yu, 2009)<sup>27</sup>. Organizational change is achieved successfully if all these factors are considered and reviewed carefully. The following part of the paragraph will explain one by one each of them briefly. To be ready to change means the extent of positive acceptance and realization that the change is more than necessary accompanied by positive attitude toward the effect of change on self and the company (Armenakis, Harris, & Mossholder, 1993)<sup>28</sup>. The more you prepare, the greater the reception and decision-making power of the member would be. At the same time as groundwork is lower, the greater is the resistance to change, and the probability of organizational change to fail is going to be.

One more common reason why change in organizations can fail, is that most of the companies do not take the systematic viewpoint to make a holistic plan for organizational change. For instance, overlooking other factors that may affect employee's behavior like, structure, the system of organizing, culture, and so on so forth, and the trying to make change only through education and training does not work. Furthermore, some companies undertake identical plans of change applied to all departments and individuals without considering their differences.

Another error is to make a quick decision and quick solution. They usually suppose that if they introduce a set of organizational changes can solve all the troubles, and that recruiting an consultant out of the company can help on everything. However, this expectation, leads to a high dependence on the consultant which would make them invest less which in turn can end the plan programme too soon if the obtained results do not match their expectations believed in the start.. Besides, when designing the plan for the organizational change, members usually take the motion and change activity too seriously, while neglect the most important change goal itself. Therefore, members involve themselves in the activity energetically, but the achievement is actually quite limited.

Finally, poor management in change process is the next mistake that could be fatal. Numerous factors have to be considered and evaluated, moving, freezing or unfreezing levels. Overlooking definite factors go ahead to total failure of the organizational change. Lastly, the harmony between organizational context and the plan of change may also play a crucial role in the success or failure of organizational change. Thus, organizational change is to frame a new pattern of thinking and behavior in employees and when the new pattern contradicts with the old ones, the reluctance to change tends to make the plan to fail. Therefore, when designing a change plan, we must include the organizational context.

## 10. CONCLUSION

We can conclude that organizational change is one of the most significant factors, which through innovation and improvement obtains the intended success and productivity, which make companies survive in the era of vigorous competition. Organizational change happens for a number of reasons. Often this is because of changes in the internal and external environment. Factors of different nature such as globalization of markets and speedily evolving technology force businesses to respond in order to stay alive.

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<sup>27</sup> Yang, R. S., Zhuo, X. Z., & Yu, H. Y. (2009). *Organization theory and management: cases, measurements, and industrial applications*. Taipei: Yeh-Yeh.

<sup>28</sup> Armenakis, A. A., Harris, S. G., & Mossholder, K. W. (1993). *Creating readiness for change*. Human Relations, 46, 681-703.

Organizations implement changes to increase the effectiveness of the business. Change can be a complex process and there may be barriers to overcome. This is why implementing change programmes within an organization or a company requires effective managers.

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## **THE RELATIONSHIP BETWEEN LIQUIDITY AND PROFITABILITY: AN EMPIRICAL STUDY FOR THE CASE OF ALKALOID**

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### **ABSTRACT**

The relationship between liquidity and profitability is one of the most popular topics of research in the financial management field but still not exhaustively examined and documented for the industries in the Republic of North Macedonia. Taking into account the importance of the pharmaceutical industry for every country's well-being, the purpose of this paper is to examine the relationship between liquidity and profitability in the pharmaceutical sector in the Republic of North Macedonia. This paper analyzes the biggest and the most influential pharmaceutical producer and seller in the RNM, listed on the Macedonian Stock Exchange. For its purpose, this empirical research has used secondary annual financial data over the period 2010 – 2019. Current ratio (CR), quick ratio (QR) and cash ratio (CAR) were used to measure the liquidity position while return on assets (ROA) and return on equity (ROE) were used to measure the company's profitability. The statistical tests performed, primarily involved were descriptive statistics, correlation and regression analysis. The findings suggest that there is negative relationship between profitability and liquidity determinants of the biggest North Macedonian pharmaceutical firm. This study contributes to the existing literature in this field and represents one of the pioneer attempts in the case of RNM.

### **KEYWORDS**

current ratio, quick ratio, cash ratio, return on assets, return on equity, pharmaceutical firms

### **JEL CLASSIFICATION CODES**

G30 M20

### **1. INTRODUCTION**

In the corporate finance literature, profitability and liquidity are terms which represent one of the most prominent issues as they are major indicators of the firm's financial performance. An ultimate goal for any firm is to maximize profitability while being optimally liquid. Too much attention on profitability may lead the firm into bankruptcy by underestimating the liquidity needs. On the other hand, holding too much liquid assets in order to overcome possible liquidity problems may harm the profit level (Niresh, 2012). Manager's expertise plays crucial role in determining the optimal level of liquidity and profitability for enabling the best possible scenario for the firm. Their main concern is a set of financial metrics which explains the relationship between profitability and liquidity. Maintaining a profit level which would be supported at the same time by long-term interest and high liquidity is even harder in a volatile and complex industry. In the case of pharmaceutical companies which operate in an environment with stiff competition and strict regulations the accomplishment of the above mention goal is even a

bigger challenge. Globally many authors have analyzed the financial performance of the pharmaceutical sector but the financial performance of this industry in the Republic of North Macedonia is still not well known and that allows for further research.

This paper aims to study the relationship between liquidity and profitability variables, its significance and direction. The research is based on the annual audited financial statements of the biggest pharmaceutical company listed on Macedonian Stock Exchange (MSE), Alkaloid AD Skopje. The period subject to review in this study includes ten years, from 2010-2019. The statistical analysis is performed using current ratio (CR), quick ratio (QR) and cash ratio (CAR) as independent liquidity measures while return on assets (ROA) and return on equity (ROE) were used to measure profitability as a dependent variable. Although the pharmaceutical sector in North Macedonia is not so developed compared to other countries, this study contributes to the existing literature in different ways since this study is one of the first to measure the profitability and liquidity ratio within the sector since it represents continuation of a broader research for the whole pharmaceutical industry (Hristova, Srbinovska, Mileva & Zafirova, 2019). The remainder of this paper includes a literature review on liquidity and profitability and the existence of an association between the variables chosen, the research hypotheses, research methodology and research design, research statistics and results, followed by concluding remarks.

## **2. LITERATURE REVIEW**

### **2.1 Theoretical literature**

#### **2.1.1 Profitability**

The profit is the end result of how effectively are used all available resources. The profitability can be explained as the capability of making profit out of all the business activities which are undertaken by an organization, firm or an enterprise (Njure, 2014). Although, very different in their meaning, the terms “profitability” and “profit” very often, are used as synonyms. The profit is the amount of income generated after covering all incurred costs no matter of the type of the firm, its size or the industry where it operates, while profitability is a measure of the efficiency of the firm within the specific industry. The biggest difference between the terms “profitability” and “profit”, and the reason why both cannot be used interchangeably in every given situation, is the fact that although a firm makes profit at the yearend it does not mean that it is a profitable firm. Two firms which operate in a same or similar industry and have same amount of profit may vary in terms of profitability. In this sense, Kim, Mauer and Sherman (1998) said “Profit in two separate business entities may be identical, yet, many a times, it usually happens that their profitability varies when measured in terms of size of investment.” In this paper, we are mainly concerned about the firm’s profitability, and the term profitability will be used very intensively while the profit will be used as an explanatory term in a sense that a profitable firm makes a profit not vice versa.

#### **2.1.2 Liquidity**

In the financial literature both liquidity and profitability represent very complex phenomenon and there is a set of various definitions which are describing the terms, according to the context in which they are used or the perspective from which they are seen. Firm’s managers see the liquidity as the ease of converting the assets into cash since the assets which are hard to be sold become very expensive since they are sold with a loss incurring additional unexpected costs for the firm (Foucault, Pagano and Roell, 2013). Similarly, Damodaran (2005), describes the liquidity as an antonym of the illiquidity of an asset from a perspective of an investor, “When you buy a stock, bond, real asset or a business, you sometimes face buyer’s remorse, where you want to reverse your decision and sell what you just bought. The cost of illiquidity is the cost of this remorse”. For the purpose of the paper we will use much simpler definition of

liquidity: “A firm is liquid when it can pay bills on time without undue cost”, or defined in other words: “A firm is considered liquid when its assets exceed its liabilities” Maness and Zietlow (2005).

### **2.1.3 Financial ratios**

Financial analysis is one of the best tools for the assessment of the firm’s performance. The performance evaluation of a firm is mainly related to how well the firm can invest the capital and use its assets and revenues in the process of covering the expenses and paying off the liabilities (Hossan and Habib, 2010). The evaluation is generally done by analyzing items of the financial statements (mainly between balance sheets and income statements). The analysis of the financial statements can be best done by different numerical and percentage ratios.

In the article by Thachappilly (2009) all the ratios are divided in few categories such as profitability ratios, liquidity ratios, debt ratios, performance ratios and evaluation ratios.

For the purpose of this research the main focus will be put on the profitability and liquidity ratios which are applicable for the firms in the pharmaceutical sector.

## **2.2 Empirical literature**

### **2.2.1 Relationship between profitability and liquidity**

The influence and the importance of both liquidity and profitability as independent factors cannot be denied but the relationship between these two factors is still a very debatable subject and no theoretical consensus has been reached yet (Umobong, 2015). Indeed, it is questionable whether there is a relationship between the liquidity and the profitability of a firm at all, and if there is a relationship is it positive or negative?!

According to Chandra (2001), high level of liquidity is a sign of firm’s financial strength but according to Neto (2003) high level of liquidity can be as undesirable as a low level.

The economic theory, on the other hand, implies that the risk and the profit are strongly positively related. It means that riskier investments require higher return and vice versa, investments which bear little or no risk are less profitable. In our case it means that higher the liquidity the lower the risk for the company and lower the profit would be.

The controversy around the relationship between firm’s liquidity and profitability is yet not settled, therefore many theoretical and empirical studies from all around the world were conducted.

Eljeljly (2004), tested the relationship between liquidity and profitability over a sample of joint stock companies operating in Saudi Arabia. He used the current ratio and the cash gap as liquidity determinants. The conclusion was that there is a negative relationship between profitability and liquidity for the sampled firms in Saudi Arabia.

Shin and Soene (1998), were one of the first who relate the management of working capital with the firm’s profitability. They took a large sample of American firms listed on the US Stock Exchange and analyzed whether there is a relationship between the cash conversion cycle and the profitability for the chosen firms in the sample. The study resulted in concluding a very strong negative relation between the cash cycle and the profitability.

Rehman (2015) have chosen a different set of firms, Bloomberg’s 72 listed firms and checked for possible relation between the way of managing the working capital and the firm’s profitability. Multiple regression analysis performed on a given set of ratios, measuring the efficiency in managing the working capital, showed negative relationship between firm’s performance and the management of working capital.

Deloof (2003), has done one of the first studies regarding the abovementioned relationship for the European market. He formed a sample of 1,637 Belgian Firms. The conclusion which was reached was

very similar, he found a negative relation between the cash conversion cycle and the profitability represented by the ROA and ROS.

Theoretical and empirical consensus around the relation between the profitability and the liquidity is still not reached almost all studies which analyzed this relationship had a same conclusion of existence of negative relation between the profitability and the liquidity. As it can be seen from all studies cited above, the relation is analyzed for firms which operate in different types of industries but there was not such study which relates to the discussed topic but for the pharmaceutical sector. This deficiency leaves space for further analysis of the relationship between the liquidity and the profitability in the firms which operate in the pharmaceutical sector in the Republic of North Macedonia. The analysis for North Macedonia has started with the empirical study of the relationship between the profitability and liquidity for the pharmaceutical sector (Hristova, Srbinska, Mileva, & Zafirova, 2019), now continued and improved in this paper.

### 3. RESEARCH METHODOLOGY

#### 3.1 Research problem

The study of profits is very important because it provides information about the health of the firm, the health of the sector in which the firm operates and about the health of the economy as a whole in a given year. Changes in profitability determine the existence and the growth of a firm. A profitable firm contributes to the economic development of a country by offering excess employment and additional tax return to the governmental budget.

On the other hand, we know about lot of examples of corporate failures caused by liquidity problems. If the firm which is faced with a liquidity problem is big and influential for the economy and it goes bankrupt it will cause a financial distress for the other firms in that particular country or sector. Even if the firm is not so influential, its failure will compromise supplier relations and the consistency in the supplies for that sector. If this happens in sector where the stable supply of product is of crucial importance, the consequences may be even worse. One sector of such kind is the pharmaceutical sector where a failure of a big firm supplier of medicines may lead to a deficit of very important medicines which cannot be substituted immediately by the competition. Based on the above-mentioned facts, it is worth investigating the effect of liquidity on profitability of the firms in the pharmaceutical sector with a special attention to the biggest supplier in the pharmaceutical sector in the Republic of North Macedonia.

#### 3.2 Hypothesis

For the purpose of analyzing the research problem one general research question is raised so far:

- 1) Does a relationship between liquidity and profitability exist and whether it is significantly negative, taking into consideration the biggest supplier in the pharmaceutical sector in the Republic of North Macedonia?

In order to try to answer the above stated question and based on the reviewed literature, we build the hypothesis that will be tested in this research:

#### **HYPOTHESIS:**

*- There is a negative and significant relationship between liquidity and profitability determinants of the biggest supplier in the pharmaceutical sector in the Republic of North Macedonia.*

#### 3.3 The data

In order to do the statistical analysis, we gathered secondary data of the biggest pharmaceutical company in North Macedonia, listed on Macedonian Stock Exchange (MSE), Alkaloid AD Skopje. The data were primarily collected from the audited and consolidated annual report for the period 2010-2019.



The main reason why we decided to narrow down the research and cover only one firm in the given industry, listed on the MSE stock exchange, is because that firm is the biggest one, the most influential, has the biggest market share and exports its products abroad.

After the collecting stage, we conducted a statistical analysis by using SPSS statistical software package. The purpose of the statistical analysis is to test whether the profitability of a firm measured by ROA (return on assets) and ROE (return on equity) relates to company liquidity strategies whereby its efficiency was measured with the use of three liquidity measures: CR (current ratio), QR (quick ratio) and CAR (cash ratio). The statistical tools that were used in this research are Descriptive Statistics, Pearson correlation (Shapiro-Wilk test of normality) and regression analysis.

### 3.4 The model

For this study, we define two linear regression models in order to test the effect of independent variables measuring liquidity on the dependent variables measuring company's profitability.

$$ROA_t = \alpha + \beta(X_t) + \varepsilon_t \quad (1)$$

$$ROE_t = \alpha + \beta(X_t) + \varepsilon_t \quad (2)$$

where ROA and ROE represent two dependent variables, determinants of the profitability,  $\alpha$  represents unobserved, invariant, fixed company factor  $i$ ;  $X$  represents a vector of the liquidity determinants, as independent variables employed by the company in period  $t$ ;  $\varepsilon$  is the error term;  $\beta$  is the parameter to be estimated;  $t$  is the year.

## 4. DATA ANALYSIS AND RESULTS

This part summarizes all results regarding the profitability and the liquidity position of Alkaloid.

At first the descriptive analysis is conducted. Then we proceed with the correlation and linear regression analyses to examine the relationship between liquidity and profitability and to draw conclusions.

Table 1. Mean, Standard deviation, minimum and maximum scores, for ROA (return on assets), ROE (return on equity), current ratio, quick ratio and cash ratio.

	VALID N	MEAN	MINIMUM	MAXIMUM	STD. DEV
<b>ROA</b>	10	6,872%	6,291%	7,468%	0,388%
<b>ROE</b>	10	8,683%	7,955%	9,851%	0,61%
<b>CURRENT RATIO</b>	10	2,565	2,144	2,789	0,186
<b>QUICK RATIO</b>	10	1,461	1,0361	1,793	0,202
<b>CASH RATIO</b>	10	0,158	0,1001	0,271	0,064

Source: Author's calculations

From the results obtained in Table 1 it can be noted that the arithmetic mean (M), or the average ROA value is 6,9% with a minimum score of 6,3% and the maximum score for ROA 7,5%. For North Macedonia an industry average for these 10 years is not publicly available to be compared with.

Average ROE value is 8,7%, minimum score is 8% and maximum score is 9,9%. For North Macedonia an industry average for these 10 years is not publicly available to be compared with.

Liquidity is comprised of three subscales The first one is distinguished by a score of the arithmetic mean of  $M = 2,6$ . A current ratio above 1 means that the company is well positioned to cover its current liabilities although a ratio of 2:1 is widely accepted as a good indicator. Alkaloid has a high CR

and with an average value of 2,6 Alkaloid is able to pay off its liabilities using its short-term assets (i.e. cash, marketable securities accounts receivables, inventories).

The arithmetic mean of the second subscale (QR) is 1,5 with a maximum score of 1.8 and a minimum score of 1. Positive quick ratios show that the entities are able to repay the upcoming short-term liabilities only with the most liquid assets which are readily convertible into cash without a cost by having a ratio higher than 1:1.

Average CAR value is 0,158. Minimum score is 0,1 and maximum score is 0,27. As for the CAR ratio, an acceptable value is a ratio of at least 1:1, although CAR value lower than 1 is not necessarily alarming. The CAR ratio is a better indicator when analyzed for the whole industry. The difference between CAR and quick ratio is that CAR is taking into consideration only cash and cash equivalents ignoring receivables and inventories. Having a current and quick ratio above 1 means that Alkaloid will settle its current liabilities without any trouble by using more of the current assets and not just cash.

The following part of the research results examines the relationship between liquidity and probability in order to assess whether liquidity influences profitability, in which way, and to what extent using correlation coefficients and regression analysis. The analysis starts by analyzing the relationship between liquidity and profitability when profitability is determined using ROA (return on assets).

Table 2. Pearson correlation between ROA and current ratio

Correlations. Market correlations are significant at $p < 0,0500$ N =10	
Current Ratio	ROA
	-0,663
	$p = 0,037$

Source: Author's calculations

The correlation between current ratio and ROA for Alkaloid is negative. Since  $r = -0,663$ , as the liquidity in the firms increases the profitability decreases and vice versa profitability increases as the liquidity decreases. The correlation is statistically significant for  $p = 0,037$  (see Table 2).

Table 3. Linear regression analysis for prediction of ROA using current ratio

Model	Unstandardized Coefficients					Standardized Coefficients		95% Confidence Interval for B	
	B	Std. Error		Beta	T	Sig		Lower Bound	Upper Bound
(Constant)	,0104	,014			7,340	,000		,071	,137
CR	-,014	,006		-,663	-2,503	,037		-,027	-,001
a. Dependent Variable: ROA					R square=0,439				

Source: Author's calculations

In this analysis, CR appears as an independent variable. According to the results obtained, CR and ROA are negatively correlated: as current ratio increases for 1MKD the profitability decreases on average for 0,014MKD. Almost 44% of the changes in the profitability can be explained with the current ratio as a liquidity determinant (see Table 3).

Table 4. Pearson correlation between ROA and quick ratio

Correlations. Market correlations are significant at $p < 0,0500$ N =10	
Quick Ratio	ROA
	-0,687
	$p = 0,028$

Source: Author's calculations

The correlation between quick ratio and ROA for Alkaloid is negative. Since  $r = -0,687$ , as the liquidity in the firms increases the profitability decreases and vice versa profitability increases as the liquidity decreases. The correlation is statistically significant for  $p = 0,028$  (see Table 4).

Table 5. Linear regression analysis for prediction of ROA using quick ratio

Model	Unstandardized Coefficients Standardized Coefficients						95% Confidence Interval for B	
	B	Std. Error	Beta	T	Sig		Lower Bound	Upper Bound
(Constant)	,088	,007		12,121	,000		,071	,105
QR	-,013	,005	-,687	-2,677	,028		-,025	-,002
a. Dependent Variable: ROA						R square=0,473		

Source: Author's calculations

In this analysis, QR appears as an independent variable. According to the obtained results, QR and ROA are negatively correlated. When QR increases for 1MKD ROA decreases on average for 0,013MKD. Almost 50% (47,3%) of the changes in the profitability can be explained with this liquidity determinant quick ratio (see Table 5).

Table 6. Pearson correlation between ROA and cash ratio

Correlations. Market correlations are significant at $p < 0,0500$ N =10	
Cash Ratio	ROA
	-0,403
	$p = 0,248$

Source: Author's calculations

The correlation between cash ratio and ROA for Alkaloid is negative but is not statistically significant, because  $r = -0,403$ ,  $p = 0,248$ ;  $p > 0,05$  (see Table 6).

Table 7. Linear regression analysis for prediction of ROA using cash ratio

Model	Unstandardized Coefficients Standardized Coefficients						95% Confidence Interval for B	
	B	Std. Error	Beta	T	Sig		Lower Bound	Upper Bound
(Constant)	,073	,003		21,937	,000		,065	,080
CAR	-,024	,020	-,403	-1,245	,248		-,069	-,021
a. Dependent Variable: ROA						R square=0,162		

Source: Author's calculations

In this analysis, cash ratio appears as an independent variable. According to the obtained results, the cash ratio and ROA are negatively correlated but the relation is not statistically significant since  $p = 0,248$ . Only 16% of the changes in the profitability can be explained with cash ratio as a liquidity determinant (see Table 7).

The following part analyzes the relationship between liquidity and profitability when profitability is determined using ROE (return on equity).

Table 8. Pearson correlation between ROE and current ratio

Correlations. Market correlations are significant at $p < 0,0500$ N =10	
Current Ratio	ROE
	-0,828
	$p = 0,003$

Source: Author's calculations

The correlation between current ratio and ROE for Alkaloid is negative. Since  $r = -0,828$ , as the liquidity in the firms increases the profitability decreases and vice versa profitability increases as the liquidity decreases. The correlation is statistically significant for  $p = 0,003$ ,  $p < 0,05$  (see Table 8).

Table 9. Linear regression analysis for prediction of ROE using current ratio

Model	Unstandardized Coefficients Standardized Coefficients						95% Confidence Interval for B	
	B	Std. Error	Beta	T	Sig		Lower Bound	Upper Bound
(Constant)	,156	,017		9,352	,000		,118	,195
CR	-,027	,007	-,828	-4,171	,003		-,042	-,012
<b>a. Dependent Variable: ROE</b>						<b>R square=0,685</b>		

Source: Author's calculations

In this analysis, CR appears as an independent variable. According to the obtained results, CR and ROE are negatively correlated. When CR increases for 1MKD ROE decreases on average for 0,027MKD. Even 68,5% of the changes in the profitability can be explained with this liquidity determinant Current ratio (see Table 9).

Table 10. Pearson correlation between ROE and quick ratio

Correlations. Market correlations are significant at $p < 0,0500$ N =10	
Quick Ratio	ROE
	-0,797
	$p = 0,006$

Source: Author's calculations

The correlation between quick ratio and ROE is negative. Since  $r = -0,797$ , as the liquidity in the firms increases the profitability decreases and vice versa profitability increases as the liquidity decreases if taking into consideration the quick ratio as a liquidity indicator and return on equity as a profitability indicator. The correlation is statistically significant for  $p = 0,006$  (see Table 10).

Table 11. Linear regression analysis for prediction of ROE using quick ratio

Model	Unstandardized Coefficients Standardized Coefficients						95% Confidence Interval for B	
	B	Std. Error	Beta	T	Sig		Lower Bound	Upper Bound
(Constant)	,122	,010		12,834	,000		,100	,144
QR	-,024	,006	-,797	-3,728	,006		-,039	-,009
<b>a. Dependent Variable: ROE</b>						<b>R square=0,635</b>		

Source: Author's calculations

In this analysis, QR appears as an independent variable. According to the obtained results, QR and ROE are negatively correlated. When QR increases for 1MKD ROE decreases on average for 0,024MKD. Even 63,5% of the changes in the profitability can be explained with this liquidity determinant quick ratio (see Table 11).

Table 12. Pearson correlation between ROE and cash ratio

<b>Correlations. Market correlations are significant at <math>p &lt; 0,0500</math> N =10</b>	
<b>Cash Ratio</b>	ROE
	-0,487
	$p = 0,154$

Source: Author's calculations

The correlation between cash ratio and ROE for Alkaloid is negative but is not statistically significant, because  $r = -0,487$ ,  $p = 0,154$ ;  $p > 0,05$  (see Table 12).

Table 13. Linear regression analysis for prediction of ROE using cash ratio

Model	Unstandardized Coefficients Standardized Coefficients						95% Confidence Interval for B	
	B	Std. Error	Beta	T	Sig.		Lower Bound	Upper Bound
(Constant)	,094	,005		18,948	,000		,083	,106
CAR	-,046	,029	-,487	-1,575	,154		-,114	,021
<b>a. Dependent Variable: ROE</b>						<b>R square=0,237</b>		

Source: Author's calculations

In this analysis, cash ratio appears as an independent variable. According to the obtained results, the cash ratio and ROE are negatively correlated but the relation is not statistically significant since  $p = 0,154$ . Only 24% of the changes in the profitability can be explained with cash ratio as a liquidity determinant (see Table 13).

## 5. INTERPRETATION OF THE RESULTS

From the results obtained on the basis of regression analysis, a significant negative correlation was detected between return on assets (ROA) and current ratio (CR), between ROA and quick ratio (QR), between return on equity (ROE) and CR and between ROE and QR. The movements in ROA are significantly explained using CR and QR as explanatory variable in the regression models given the R square value of around cca.45% in both instances. In addition, the movements in ROE are significantly explained using CR and QR as explanatory variable in the regression models given the R square value of around cca.65% in both instances. Given the significant correlation between CR and QR as liquidity indicators and ROA and ROE as profitability indicators, the hypothesis stating that there is a negative and significant relationship between liquidity and profitability of the biggest supplier in the pharmaceutical sector in the RNM is **accepted**, because of the significant negative correlations identified above.

The research conducted by Siame (2012), whose goal was to determine whether there is a relationship between liquidity and profitability and to further describe the nature of the possible relationship between liquidity and profitability of South African firms listed on the Johannesburg Stock Exchange (JSE), resulted in a significant negative relationship between operating profitability and the cash conversion cycle of the firm. The findings of this paper are also in line with (Eljelly, 2004 according to Siame, 2012)), (Deloof, 2003 according to Siame, 2012) and (Raheman & Nasr, 2007 according to Siame, 2012) who found a strong negative relationship between measures of working capital management and operating profitability.

The results of this paper are in line with the above-mentioned studies, as with most of the studies that deal with this topic, although they all analyze very different and locally very distant countries.

Ljubich (2017), has a very similar study regarding the relationship between liquidity and profitability in 40 firm in Croatia. Although the firms operate in different industries than the pharmaceutical industry, Croatia is a Balkan country as it is Macedonia and they are much more similar in many aspects than all other Asian and American countries. Ljubich made a sample of 40 Croatian countries which have

publicly available financial statements. The firms are operating in four different industries since the purpose of the study is to analyze the relationship between the liquidity and the profitability in a broader sense not just in one industry. He analyzed the period between 2012-2015. The main hypothesis in this study was that there is a positive relationship between the current liquidity and the profitability in a firm measured by ROA. This hypothesis is totally opposite to the hypothesis stated in this study but the end result was that Ljubich actually found a negative relationship between liquidity and profitability so he rejected all the previously assumed hypothesis.

## 6. CONCLUSION

From the reviewed studies and papers, it can be concluded that most of the authors who analyzed the relationship between liquidity and profitability, indeed revealed a negative relationship between liquidity and profitability. In other words, as the firm's profitability increases the liquidity level decreases. This paper intended to determine the relationship between liquidity as measured by current ratio, quick ratio and cash ratio and profitability as measured by ROA (return of assets) and ROE (return on equity) of the biggest pharmaceutical company in North Macedonia. In order to do this, the research was designed as a correlation study where relationships were tested. The analyses were performed on the financial data of the most influential MSE-listed representative from the pharmaceutical industry in RNM, Alkaloid AD Skopje. The conclusion of this study is that there is a negative relationship between profitability and liquidity at the 5% level of significance, and that the liquidity is one of the determinants of profitability when taking into account the operations of Alkaloid AD Skopje.

Future studies in this area can rely on measuring liquidity and profitability using different indicators and expand it to entities from other industries.

## 7. LIMITATIONS

One disadvantage of this research is the number of observations which was limited to 10 years and not more, due to the lack of publicly available and reliable data for the rest of the period. This may have affected the results of the study and thus the findings should not be universally applied to every company from the pharmaceutical sector for each given period. Moreover, as the study was done only in North Macedonia, the results may not be applicable to other countries with a different environment. The uniqueness of the operating environment may hinder the application of these results in other countries where the macro and micro environments are substantially different. Furthermore, there might be some data that are not publicly available, that could affect the analysis in a significant manner. Since there are other factors that affect profitability of companies, therefore the results may be different if the relationship between the liquidity and the profitability was not studied in isolation of those other factors.



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# **EVALUATION OF THE FINANCIAL PERFORMANCES OF THE COMPANIES FROM THE CONFECTIONERY INDUSTRY IN NORTH MACEDONIA**

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## **ABSTRACT**

The purpose of the paper is to conduct an evaluation of the financial performances of the companies from the confectionery industry in North Macedonia. The companies that are evaluated and analyzed are competitive within the food sector, i.e. the confectionery industry. The objective of this research is to highlight and compare the financial situation of Evropa AD Skopje and Vitaminka AD Prilep as representatives of the confectionery industry in Macedonia. The paper is dedicated to the practical use of financial analysis, analyzing data from the audited financial statements and income statements. The theoretical section of the research contains a discussion regarding the different factors that affect the confectionery industry, an analysis of the most appropriate financial factors that are determined by many researchers, specific financial statements, methods of financial statement analysis and financial ratio analysis. Similarly, the annual performances of the two companies are not analyzed and used in order to choose the best one in the market, rather the selection of the two companies would provide an example to rate how a company's individual performances are used aiming for comparison with a similar entity that operates in the same market or industry. The study demonstrates that the Macedonian confectionery industry is significantly affected by both companies, especially in the period from 2014 to 2017. Development and stable situations were observed within the studied companies, with positive and negative manners throughout the years, however resulting as a strong pillar of the industry.

## **KEYWORDS**

Evaluation, confectionery, financial performance, confectionery industry

## **JEL CLASSIFICATION CODES**

D2, L2, L66

## **1. INTRODUCTION**

The modernization of financial methods has made it possible for any researcher and manager to evaluate and obtain valid information regarding the financial performance and how to consider the performance of an organization or an industry for every operating company in a confectionery market.

Companies are constantly attempting to survive, adapt, develop, influence, and perform. In order to provide a clear picture of what a company can or should change towards improvement of the current performance, companies conduct an evaluation of the financial performance. Namely, the available public audit reports of the two companies from the confectionery industry provided by the Macedonian stock exchange represented an additional guarantee for a high level of comparability. According to J. Marjanova (2000), which elaborated the marketing research of chocolate market in Macedonia, stated that the entire Macedonian industry within the confectionery market in Macedonia is overtaken by many foreign brands and businesses, the most bought products in chocolate industry are Milka, Nestle, Dorina and then the domestic products. Shaping the global financial situation, the emerging markets of confectionery products such as Macedonia have become substantially important. Relevant factors such as economy, technology, competition and country policies have a decisive role in the performance of any confectionery company in Macedonia and the region.

The key players in Macedonia that largely invest were Evropa AD Skopje (hereinafter Evropa) and Vitaminka AD Prilep (hereinafter Vitaminka). The aim of the research is to perform an evaluation of the financial results that have a significant role in determining the company's performance to meet and forecast the financial goals. In addition, the annual performances of the two Macedonian companies for the period 2014-2017 are taken into consideration. To make an effective comparison of Vitaminka and Evropa, using data from the annual reports and the Macedonian stock exchange, a comparative financial statement analysis through a horizontal and a vertical analysis will show the current evaluation performance of the companies and the Macedonian confectionery industry.

The analysis is expected to help the author perform an evaluation of the final situation and the final results of the observed companies. Although the empirical research will primarily use secondary data from the published audited annual reports of the companies, the author will also investigate web resources to perform more profound searches ensuring not to miss out any relevant factors about the companies.

## **2. MACEDONIAN CONFECTIONERY INDUSTRY-STATE OF ART**

The Macedonian confectionery industry is an important part of the food industry with a relevant positive impact on the external trading balance of the country. The export value of finished confectionery goods is almost 10% of the value of total exports by Macedonian food manufacturers, based on Euromonitor International elaborating the overall confectionery industry in Macedonia. The confectionery industry is characterized by strong and expressed rivalry among competitors' influences and a high possibility of new entrants, large number of substitute products, high bargaining power on the side of suppliers and consumers. The trends in the confectionery industry in Macedonia include chocolate and sugar confectionery products. Because of increased unit prices of cocoa in the international market, Macedonian chocolate confectionery companies continued to face challenges in 2017 and at the beginning of 2018.

According to Jovanov M. (2012), the confectionery market in Macedonia is a market where the possibility to create a sustainable competitive advantage and competitive positioning is directly influenced by a proactive approach to strategic planning in general, and management activities specifically. The increasing demand for Macedonian candies internationally is primarily propelling a demand for the market. Moreover, the number of consumers switching to healthy snacks is propelling market players to introduce innovation in their product portfolios. Macedonian market players are significantly facing competition from the increasing healthy snack markets as the population of health-aware consumers is growing constantly each year.

The confectionery industry today has a possible production capacity of about 45.000 to 50.000 tons per year. But in recent years, with the international crisis and the pressure resulting from intensified competition from imports, the domestic market has declined. The output was demanded in the increase of

export, though with a lower profitability per unit product, which in 2016 compared to 2008 increased by 42.5% in terms of the volume of production. According to the State Statistical Office of Macedonia, the manufacturing of food products constituted 11.47 % of the total industrial production in the country. Therefore, this indicates that the Macedonian food production industry has good prospects for growth and development in the following years.

The confectionery industry is composed of three main segments, chocolate confectionery, sugar confectionery and gum products. The use of sugar and sugar substitutes characterizes all these categories. On the basis of generated sales, Western Europe is the leading region in the global confectionery market. Based on results with a positive impact on the external trading balance of the country, it was observed that the value of exported confectionary products is almost 10.5% of the total export of food products in Macedonia.

### 3. LITERATURE REVIEW

The performance evaluation of a company requires the consideration of several criteria and performance evaluation needs to be carried out with a balanced multidimensional system, including financial indicators such as financial statements and financial ratios. According to Campbell R. Harvey (2007, p.17), it is considered that an evaluation of a performance is a comparison of a company's performance in relation to a group of comparable companies. This evaluation can be performed periodically in order to measure competitiveness, and to judge a particular company's performance. Collis and Jarvis (2002) stated that the evaluation of the company's financial performance includes the basic concept and methods to measure the preparation, analysis and interpretation of a corporate financial statement. The main focus is to understand the relevance, structure and information goal of the relative financial statements such as balance sheet, income statement, and financial ratios.

Morgan (2004) states that there are several methods and theories regarding the emergence of the evaluation of the company's performance and believes that trend performances appeared in Venice in the fifteenth century, with the emergence of double accounting. Another view, according to Johnson and Kaplan (1987), suggests that performance evaluation emerged as a concept during the industrial revolution. The company's performance represents the aggregation of its stages of action, from intention to results (Lebas 1995), meaning that results cannot be separated from the achieved performance.

Radun V. (2013) also explained that this phenomenon is noticed among strong confectionery players that have developed competitive advantage and has been frequently applied in the last four years, primarily in exports of the countries from the region. Vodopivec (2016) explains that long term ambitions are the primary objectives when following the stages of growth in the region. The company's products are present on all continents, however the exported quantities outside the region are lower and mainly intended for customers who are originally from the Balkan region.

Stoica (2002) states that the main attraction of emerging markets relies on high return opportunities and a potential for growth. According to the World Bank, Macedonia was on the very high 22<sup>nd</sup> place in doing business. According to the confectionery industry, trends show that the country is not sufficiently concerned with the development of the industry, some of its measures even discriminate domestic producers in comparison to importers. This indicator refers primarily to the tax and customs policies, which directly burden the price of the domestic products by making them uncompetitive in terms of prices compared to imported products.

Analysts concluded that the capacities of this branch are larger than the domestic market needs and indicated that about 35% of the annual production is being exported. Confectionery companies have applied European quality and European standards in their production, with continuous investments in new technology and expansion of product lines. Performance evaluation in real terms is not an issue that matters only once in a year, regardless of whether the company's process will realize it or not, performance is being evaluated constantly. Every daily process, every completed assignment shows a chance to determine how well objectives are being accomplished. In general, the performance evaluation

analysis aims to put down on a paper a conclusion of these day to day evaluations and helps the author or the company to maintain the evaluation as objectively as possible.

#### **4. RESEARCH METHODOLOGY**

Evaluation of the financial position and performance of the two main confectionary companies is the purpose and aim of the author. The research contains an extensive and intensive study of both Macedonian companies and regional ones. The methodology section provides information about the method or technique which the researcher or author applies to conduct the paper and also specifies the procedures and data followed by the researcher. Data collection and analysis are conducted by using secondary data and literature research that are already published. The companies' audited financial reports are considered for preparing the analysis and comparing the research. The final part of the chapter will also assess and include the reporting of the collected data.

First, the confectionery industry will be elaborated and prospects of the companies that directly reflect the industry together with data collection prepared for forward analysis. Second, preparation and conducting of financial statement analysis, comparative and common-size financial analysis will be specifically performed, both analysis have the potential to discuss and present the prospects and financial performance of the company. The research paper is based on the method of using sources of information and data such as the Macedonian Stock Exchange, journal articles, theses, studies, research papers, and audited financial reports.

The data analysis will summarize the collected data and it directly involves the interpretation of the data collected through the financial statements' analysis. Data analysis for quantitative research involves critical analysis and interpretation of data numbers and figures and solutions with an attempt to assess the financial performance of the company. In this section of the research methodology, the collected data from the quantitative research is presented, described, analyzed and interpreted in a financial form in the following section of the paper.

#### **5. RESEACH RESULTS AND DISUCSSION**

Financial analysis is the process of identifying the financial strengths and weaknesses of the company, establishing relationships between the items of the balance sheet and income statement. Under the financial analysis, different methods of financial analysis will be used to have a clear evaluation of a company's situation. Analysis such as: Comparative financial statement analysis and common-size financial statement analysis.

##### **5.1 Comparative financial analysis**

The section of comparative financial analysis contains horizontal analyses of the balance sheet and income statement of the companies in question, vertical analysis will also be included. This method of analysis is known as trend analysis, which allows the assessment of relative changes of different items over time. It indicates the behavior of revenues, expenses and other items of the financial statements over the analyzed time. The company's assets, liabilities and equity for a specific period are analyzed and presented in the balance sheet. The sub-accounts of the balance sheet include the assets account that includes current assets and fixed assets of the company. The other sub-account includes all liabilities and equity. While total liabilities are summed up with equity in order to obtain liabilities and shareholder's equity, which is always equal to the total assets. The following table indicates the Balance sheet of Evropa AD Skopje from 2014-2017 in total amounts and the change of percentage compared to the base year 2014.

**Table 1 Balance sheet of Evropa AD Skopje (2014-2017) in 000 MKD**

<i>Assets</i>	Evropa 2014	Evropa 2015	Percent Increase (decrease) 2014-2015	Evropa 2016	Percent Increase (decrease) 2014-2016	Evropa 2017	Percent Increase or (decrease) 2014-2017
<b>Non-current assets</b>	<b>620.272</b>	<b>599.396</b>	<b>(3.48%)</b>	<b>566.765</b>	<b>(8.62%)</b>	<b>551.821</b>	<b>(11.03%)</b>
<b>Intangible assets</b>	<b>377</b>	<b>152</b>	<b>(148%)</b>	<b>0</b>	<b>100%</b>	<b>0</b>	<b>100%</b>
<b>Property, plant and equipment</b>	<b>371.515</b>	<b>376.659</b>	<b>1.36%</b>	<b>344.377</b>	<b>(7.3%)</b>	<b>313.817</b>	<b>(15.5%)</b>
Property.	139.624	156.337	<b>10.69%</b>	146.802	<b>5.1%</b>	137.253	<b>(1.7%)</b>
Plant and equipment	229.718	220.046	<b>4.39%</b>	197.299	<b>(14.2)</b>	176.039	<b>(23.3%)</b>
<b>Long-term financial instruments</b>	<b>248.380</b>	<b>222.585</b>	<b>(11.5)</b>	<b>222.388</b>	<b>(10.4%)</b>	<b>238.004</b>	<b>(4.1)</b>
<b>Current Assets</b>	<b>410.145</b>	<b>373.403</b>	<b>(9.83)</b>	<b>341.469</b>	<b>(16.7%)</b>	<b>345.536</b>	<b>(15.7%)</b>
Inventories	119.824	113.841	<b>(5.25%)</b>	124.000	<b>3.5%</b>	114.755	<b>(4.12%)</b>
Cash and cash equivalents	8.210	15.184	<b>46%</b>	20.343	<b>148%</b>	34.068	<b>314.9%</b>
Prepaid expenses	407	372	<b>(9.4%)</b>	299	<b>(26.5%)</b>	596	<b>46.5%</b>
<b>Total Assets</b>	<b>1.030.417</b>	<b>972.799</b>	<b>(5.9%)</b>	<b>908.234</b>	<b>(11.9%)</b>	<b>897.357</b>	<b>(14.8%)</b>
<b>Equity and Liabilities</b>							
<b>EQUITY</b>	<b>698.714</b>	<b>715.491</b>	<b>2.34%</b>	<b>697.877</b>	<b>(0.12%)</b>	<b>727.636</b>	<b>4.1%</b>
<b>LIABILITIES</b>	<b>331.703</b>	<b>337.455</b>	<b>1.7%</b>	<b>210.357</b>	<b>(36.5%)</b>	<b>169.721</b>	<b>(48.8%)</b>
<b>CURRENT LIABILITIES</b>	<b>201.039</b>	<b>257.308</b>	<b>21.9%</b>	<b>160.632</b>	<b>(20.1%)</b>	<b>147.939</b>	<b>(35.8%)</b>
<b>LONG-TERM LIABILITIES</b>	<b>0</b>	<b>80.147</b>	<b>100%</b>	<b>0</b>	<b>/</b>	<b>21.782</b>	<b>100%</b>
Long-term borrowings	<b>130.664</b>	80.147	<b>(63.03%)</b>	<b>49.725</b>	<b>(61.2%)</b>	21.782	<b>(599.8%)</b>
<b>TOTAL CAPITAL AND RESERVES</b>	<b>1.030.417</b>	<b>972.799</b>	<b>(5.9%)</b>	<b>908.234</b>	<b>(11.8%)</b>	<b>897.357</b>	<b>(14.8%)</b>

Source: Company's official financial statements – official internal source

In order to evaluate and analyze the trend of assets over the period from 2014 to 2017, the most important indicators are analyzed and considered, which include fixed assets, current assets, and total assets. Based on presented data in the Table 1, there was a significant decrease in total assets from the base year 2014 to the following years. Specifically, from 2014 to 2017. Based on Evropa's results, the total assets decreased by 14.8% and the fixed assets also faced a slight increase of 12.4%. On the other hand, Vitaminka's results shows the opposite, from 2014 to 2017 the total assets reached a significant increase by 16.6%, the positive results and trends also continued in fixed assets and huge differences were created with a rise of 35% from 2014 to 2017.

The table 1 assesses the comparison of Evropa's balance sheet, where the base year is 2014, to obtain an analysis with 2015. As mentioned, the main elements of the balance sheet that are analyzed and compared include assets, liabilities and equity. If the company, in our case Evropa, has lower current assets than current liabilities, this directly means that they should have to take loans in order to cover or pay the liabilities. Evropa has the lowest amount of current assets in 2015 compared to the previous year, which has decreased significantly by 9.83%. In reality this can imply that the company has invested in equipment, property or plant. The company's management was clever in 2014 to keep the double amount of current assets in order to cover the current liabilities.

The total assets together with the total liabilities & shareholder's equity decreased in 2015 by approximately 5.9%, although total liabilities and equity rose by 1.7% and 2.34% respectively, in this case the particular reason are long-term liabilities. Likewise, the comparison of the balance sheet from Dec. 31 2014 – 2016 are presented in Table 1, column 5 and 6 with amount and percentage changes.

The current assets in 2016 confront the highest decrease during the four analyzed years compared to the base one, on the other hand current liabilities declined by 20.1%. One can notice that long-term



borrowings have reduced significantly, by as much as 61.2%. Also total assets together with total liabilities and shareholder's equity suffered a 12.8% decrease in 2016.

Similar to the two previous analyzed years, in 2017 the total assets rose by around 15% and were specifically followed by total liabilities and shareholder's equity with the same percentage. The current assets faced a modulation by 14.5% which is a half of the decreased amount or percentage of current liabilities, that is, 35.8%. The lowest amount of fixed assets, current assets and current liability is observed in 2017, which has significantly affected the increase in equity by 4.1%. Another interesting fact for analysis is that the total liabilities sharply decreased in 2017, by precisely 48.8%.

The following table indicates the Balance sheet of Vitaminka AD Prilep from 2014-2017 in total amounts and the change of percentage compared to the base year 2014.

**Table 2: Balance sheet of Vitaminka AD Prilep (2014-2017) in 000 MKD**

<i>Assets</i>	Vitaminka 2014	Vitaminka 2015	Percent Increase or (decrease) 2014-2015	Vitaminka 2016	Percent Increase or (decrease) 2014-2016	Vitaminka 2017	Percent Increase or (decrease) 2014-2017
<b>Non-current assets</b>	<b>534.237</b>	<b>689.298</b>	<b>22.4%</b>	<b>772.445</b>	<b>30.8%</b>	<b>1.436.576</b>	<b>59.2%</b>
<b>Intangible assets</b>	<b>1.043</b>	<b>974</b>	<b>(6.61%)</b>	<b>848</b>	<b>(18.7%)</b>	<b>504</b>	<b>(51.6%)</b>
<b>Property, plant and equipment</b>	<b>521.471</b>	<b>669.122</b>	<b>22.1%</b>	<b>754.340</b>	<b>30.7%</b>	<b>802.860</b>	<b>35.0%</b>
Property.	385.061	436.523	11.7%	441.301	12.7%	438.083	12.0%
Plant and equipment	126.138	216.767	41.8%	306.950	58.9%	332.163	62.02%
<b>Long-term financial instruments</b>	<b>11.723</b>	<b>19.202</b>	<b>38.9%</b>	<b>17.257</b>	<b>32.06%</b>	<b>19.030</b>	<b>38.3%</b>
<b>Current Assets</b>	<b>663.369</b>	<b>655.219</b>	<b>(1.22%)</b>	<b>597.388</b>	<b>(9.94%)</b>	<b>613.438</b>	<b>(7.5%)</b>
Inventories	254.444	242.611	(4.6%)	253.481	(0.37%)	229.753	(9.7%)
Cash and cash equivalents	88.668	75.056	(15.3%)	22.511	(74.6%)	64.396	(27.4%)
Prepaid expenses	6.322	5.612	(11.2%)	8.935	41.3%	6.734	6.11%
<b>Total Assets</b>	<b>1.197.606</b>	<b>1.344.517</b>	<b>10.9%</b>	<b>1.369.833</b>	<b>12.5%</b>	<b>1.436.576</b>	<b>16.6%</b>
<b>Equity and Liabilities</b>							
<b>EQUITY</b>	<b>770.215</b>	<b>802.891</b>	<b>4.0%</b>	<b>791.153</b>	<b>2.64%</b>	<b>817.799</b>	<b>5.8%</b>
<b>LIABILITIES</b>	<b>427.391</b>	<b>541.626</b>	<b>21.1%</b>	<b>578.680</b>	<b>26.1%</b>	<b>618.777</b>	<b>30.9%</b>
<b>CURRENT LIABILITIES</b>	<b>254.892</b>	<b>311.061</b>	<b>18.05%</b>	<b>390.640</b>	<b>34.7%</b>	<b>366.850</b>	<b>30.5%</b>
<b>LONG-TERM LIABILITIES</b>		<b>230.565</b>	<b>100%</b>	<b>188.040</b>	<b>100%</b>	<b>251.927</b>	<b>100%</b>
Long-term borrowings	172.499	0	(100%)	0	(100%)	0	(100%)
<b>TOTAL CAPITAL AND RESERVES</b>	<b>1.197.606</b>	<b>1.344.517</b>	<b>10.9%</b>	<b>1.369.833</b>	<b>12.5%</b>	<b>618.777</b>	<b>16.6%</b>

Source: Company's official financial statements – official internal source

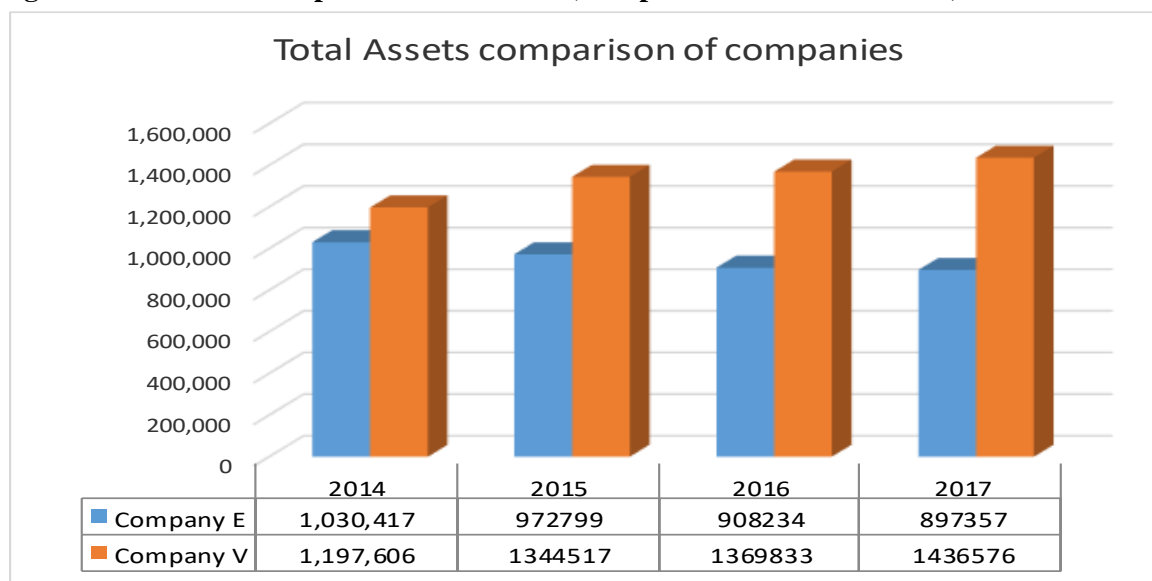
In order to take the analysis to the next level in the research, an additional technique was added in order to obtain a more solid comparative balance sheet analysis for the companies. For example, the table shows the amount differences, both increased or a decrease, and by comparing and calculating these numbers over the analyzed years one can estimate the percentage of an increase/a decrease. As indicated in the tables above, every analyzed table starts by assessing the account or percentage that changed from the base or first year, which is 2014, to the second one.

By reviewing the same amounts of current assets, more effect is given to the changes, current assets decrease at the end of year two by 1.22% while fixed assets increase by 22.4%. The company's total assets in 2017 compared to the base year increased by approximately 10.9%. The increase in the company's accounts payable and the increase in short-term liabilities sharply indicated the increased percentage of total liabilities, specifically 21.1%. On the other hand, equity experienced a trivial increase of approximately 4.0% in total, and the total liabilities and shareholder's equity have progressed and increased by 10.9%. The balance sheet of Vitaminka is a snapshot and a report showing how the company has performed over these four years. By applying the comparative balance sheet, the same company's financial statements are presented for two or several successive periods. In the thesis, the calculation of denar changes or percentage changes in the items is known as horizontal analysis. The percentage of denars change calculated from column 5 is expressed in column 6.

The percentages reveal that in 2016 the current assets decreased by 9.94%, on the other hand, the receivables increased by 3.2%. The decrease of long-term borrowings indicated that interest charges will be lower in the future. The percentage of current liabilities increased 34.7%, which signifies an increase of total liabilities by 26.1%. The total assets and total equity & liabilities in 2016 increased around 12.5%. The comparative balance sheet of Vitaminka for 2017 compared to the base year, shows that there has been a decrease of current assets by 7.5%. Furthermore, the current liabilities increased by 30.5% which indicates that the company has not paid the liabilities within the determined period. Non-current assets, receivables, equity, and liabilities have increased. Total assets and total liabilities & equity have matched and progressed by around 16.6%. The overall financial position of Vitaminka for the year of 2017 is satisfactory.

A comparison of the company's total assets, based on the results calculations is presented in the Figure 1.

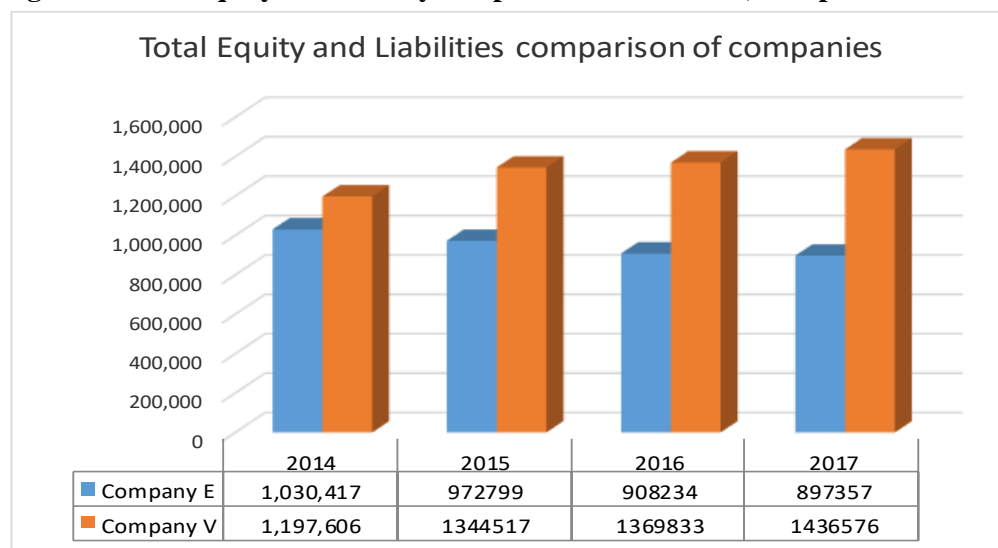
**Figure 1: Total asset comparison - 2014-2017 (Evropa AD vs. Vitaminka AD)**



Source: author's calculations

As assumed from the tables, Evropa's total assets are decreasing from the base year until the last analysed year. From the classification of assets, the percentage and amount of fixed assets dominated in Evropa's assets. The opposite phenomenon was noticed in Vitaminka's total assets with a stable and continuous growth year-by-year. The diversity of the assets' categorization was noticed in Vitaminka's results, changing during the period of analysis.

A comparison of the company's total equity and liabilities based on the results calculations is presented in the Figure 2.

**Figure 2: Total equity and liability comparison- 2014-2017 ( Evropa AD vs. Vitaminka AD)**

Source: author's calculations

According to the assets, the same years are used and only the most significant items are considered and represented. For 2016, there was a significant decrease in debts or liabilities. The overall decrease of total equity and liabilities amounted to 14.8%. Based on 2014, liabilities increased again in 2015 without any significant change of equity levels. The pattern of total equity and liabilities continues in Table 4.1 from 2014 to 2017 indicating Evropa's decreasing results.

In Vitaminka's table, one can notice a significant increase in total equity and liabilities by 16.6% during the analyzed periods, from 2014 to 2017. An increase is also observed in liabilities in all preceding years, this increase in liabilities is due to the fact that loans were contracted to support the expansion projects. The increase from 2016 to 2017 was due to the restructuring of some company's debt by converting it into equity.

## 5.2. Vertical Analysis of assets in relative values

Vertical analysis is conducted on financial statements and it involves a comparison of two or several years for the same statements. In a vertical analysis, each item in a financial statement is compared to a base number set to 100 percent and each item on the financial statement is then reported as a percentage on that basis. Vertical analysis is also often used for comparing companies in the form of benchmarking, because the headings occur in any given organization, this will make it easy to compare organizations.

The convertibility percentages of the assets are indicated in the Table 3. The percentages of categorized assets describe if the company can or cannot easily and readily convert assets into cash and cash equivalents.

**Table 3 Total assets (in %) -Evropa AD Skopje**

Evropa	2014	2015	2016	2017
<b>TOTAL ASSETS</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Fixed assets</b>	<b>60.1%</b>	<b>62.6%</b>	<b>62.4%</b>	<b>61.49%</b>
<b>Current assets</b>	<b>39%</b>	<b>38.4%</b>	<b>37.6%</b>	<b>38.51%</b>
<b>Inventories</b>	24.3%	23.5%	13%	12.7%

<b>Trade and other receivables</b>	26.3%	24.9%	21.4%	20.4%
<b>Short-term investment</b>	0.96%	0.31%	0.006%	1.39%
<b>Cash and bank balance</b>	6.79%	1.56%	2.23%	3.8%

Source: author's calculations

The convertibility percentages of the assets for Vitaminka AD are shown in the Table 4. The percentages of categorized assets describe if the company can or cannot easily and readily convert assets into cash and cash equivalents.

**Table 4 Total Assets (in %) – Vitaminka AD Prilep**

<b>Vitaminka</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>TOTAL ASSETS</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Fixed assets</b>	<b>44.6%</b>	<b>51.2%</b>	<b>56.3%</b>	<b>56.6%</b>
<b>Current assets</b>	<b>55.4%</b>	<b>48.8%</b>	<b>43.7%</b>	<b>43.4%</b>
<b>Inventories</b>	21.2%	18%	18.5%	15.9%
<b>Trade and other receivables</b>	23.1%	24.6%	22.8%	21.7%
<b>Short-term investment</b>	3.01%	0%	0.002%	0.0006%
<b>Cash and bank balance</b>	7.4%	5.5%	1.64%	4.2%

Source: author's calculations

As total assets are assessed in the tables above, the same pattern also follows for total equity and liabilities, separately stated in percentage.

**Table 5 Total Liabilities and Equity in percentage – Evropa**

<b>Evropa</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>TOTAL (E &amp; L)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Total Equity</b>	<b>67.8%</b>	<b>73.5%</b>	<b>76.8%</b>	<b>81%</b>
<b>Total Liabilities</b>	<b>32.2%</b>	<b>26.5%</b>	<b>23.2%</b>	<b>19%</b>
<b>Current liabilities</b>	19.5%	18.2%	17.6%	16.4%
<b>Non-current liabilities</b>	12.7%	8.3%	5.6%	2.6%

Source: author's calculations

The table of accounts for Vitaminka AD includes the balance sheet total liabilities and equity as 100%, then categorized into total equity and liabilities. Vitaminka's liabilities indicate that the companies own, on other hand equity includes the claims against the company's assets.

**Table 6 Total Liabilities and Equity in percentage – Vitaminka AD Skopje**

<b>Vitaminka</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>TOTAL (E &amp; L)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Total Equity</b>	<b>64.3%</b>	<b>59.7%</b>	<b>57.7%</b>	<b>56.9%</b>
<b>Total Liabilities</b>	<b>35.7%</b>	<b>40.3%</b>	<b>42.5%</b>	<b>43.1%</b>
<b>Current liabilities</b>	21.2%	23.1%	28.5%	25.5%
<b>Non-current liabilities</b>	14.5%	17.2%	14%	17.6%

Source: author's calculations

Results from the table are also indicated in the chart below. From the chart one can conclude that Vitaminka's total equity was decreasing from 2014 to 2017, unlike Evropa's total equity that was increasing. In the table the total liabilities are categorized into non-current and current liabilities from the indicated percentage in Table above. The table assesses the current liabilities with a partially high percentage and shows that the debts in the next 12 months are higher rather than in the long run.

## 6. CONCLUSION

Both analyzed companies (Evropa AD. and Vitaminka AD) are the entities with a long tradition and they have existed on the market for a long time. For generations they have sweetened the lives of people of all ages with their products, and provided unforgettable moments filled with joy and happiness, making themselves recognizable brands in the domestic and foreign market. Both companies have managed and developed the industry by launching a variety of products on foreign markets. Today, Evropa AD is a contemporary factory that produces chocolates, waffles and candies, its results indicate a company with high achievements. The certificates for meeting and developing the necessary standards show the unmistakable quality of products.

Evropa's production and operation are focused on the consumers and their wishes, which will directly build an organizational culture that provides immaculate operation. The ambition of Vitaminka's management was increasing the product capacity of the company. From a company that produced pepper, now it has become a giant business in the confectionery market in Macedonia. It reached this position by having a goal and a vision to achieve and build the image of number one food company in Macedonia and in the region. The products of both companies are easily reachable and affordable for everyone.

The current activities and goals confirm that Vitaminka AD has been increasing its presence in the country and in many foreign countries. When it comes to the analysis of financial statements and the ratios, it can be clearly shown that Evropa AD is in a much better position. By analyzing the situation, definitely one can notice that the sale of both companies has varied over the course of four years.

Generally, companies tend to keep their assets, liabilities and equity at an expected level during the operating year, having in mind the market where both companies operate, as well as considering the current financial and political situation. Since the comparison is more thoroughly, the analysis shows that Vitaminka AD had improved much more when it comes to sales, which indicates that their strategy is progressing well. Furthermore, it was found that Vitaminka has stable and positive growth, while Evropa AD on the other hand, had a decrease of 4.3% in 2015, and 5.75% in 2016.

From the analysis in the cash account, it can be clearly noticed that throughout the period of four years, some critical situations have been managed in order to change the negative percentage from 2014 to a positive value of 34% in the period of the following two years. Still, when it comes to this indicator, things were not going in a good direction, instead of increasing the cash they managed to decrease it.

Regarding the liabilities, it can be concluded that Vitaminka AD showed positive results when it comes to payables. By calculating the results, in 2014 and 2015 the company experienced a drop of 19.16% and 7.49%. Another important liability indicator was the settlement of long-term debts towards creditors throughout the year, in this situation Evropa AD has proven itself better and better managed than Vitaminka AD. The company had a good operation and reduced the loan by 79.66% one year later and in 2016 the company finished with a decreased loan by 74.21%. In the last two years, Vitaminka AD did the opposite, they increased the borrowings.

However, the situation can also be evaluated from the ratios and the conclusion is that Evropa is currently in a much better position than Vitaminka AD. Considering the analyzed situation, it is obvious that both companies have really good current ratios since they could pay off their current liabilities with the company's current assets.

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# GLOBAL GOVERNANCE IN THE LIGHT OF PANDEMIC COVID 19

Gafur Zharku

## ABSTRACT

The situation, with the COVID-19 has emerged with the enforcement of new societal rules. Moreover, when the language of global governance is evoked, the global rules and norms are intended to become a substitute for the authority and rule of territorial state. United Nation can play important role in establishing a credible global governance system of rule. Moreover, UN with their credibility can be in purpose for successful coordination and cooperation among national sovereign states. The contemporary situation and precaution measure with pandemic COVID-19 are similar with the infection control in Islam which includes isolation and quarantine. Moreover, the precautionary principle contributes to overcome pandemic situation with COVID-19 and can facilitate the management of interdependence and increase the policy coordination among state. In interaction between states for allocation and protection of Global Public Goods is desirable outcome of agreement pursued by justice and fairness. In this discourse in international arena Islam plays an important part in protecting GPG and resolving situation with the COVID-19. So global governance helps to resolve collective action problems experienced by members of international system and to provide and protect global public goods which states acting individually cannot ensure.

## KEYWORDS

Global Governance, United Nation, Covid 19, Islam, Precautionary principle, Global Public Goods

## JEL CLASSIFICATION CODES

FO2, F59, H40,019

## 1. INTRODUCTION

Global governance refers to de jure mechanism intended for the organization of international relation as they concern the executive systems in charge of stating and applying international rules as well as public and private actor (Alliance for responsible, plural and united world, 2000) According to them they suggest the three principles for renewed global governance. First at all, the principle of responsibility of state that all power induces responsibility. Second, the principle of subsidiarity which implies shared responsibility and third, the principle of plurality of states where action must not conflict with the diversity of cultural background.

The main objective of this study is to present the approach on management of global governance associated with Pandemic issue COVID-19. The situation, with the COVID-19, has emerged with the enforcement of new societal rules. Therefore, for us is important how are perceived and accepted the measure as a, isolation, distance, mask, limitation of movement and the implementation of other Global Rules.

The remainder of this paper attempts to formulate replies to these issues and to improve the scientific and societal comprehension of this social dynamics that impact the international institutions, states and everyday lives of many people in contemporary society. In addition, this study may serve as a stepping stone for future social and economic research in this rapidly evolving social phenomenon. The research problem forms a methodological challenge because it requires an explorative study of global phenomena, applying innovative concepts.

The main challenge of this research paper is that the concepts and theories should be developed out of the data and these emerging concepts and theories should be improved by checking them repeatedly against new sources which are collected specifically for this purpose (as the data about Pandemic COVID-19 constantly change).

This choice is made to leave more room for theoretical reflection and conceptualization on the basis of existing literature and limit the study only to development of the theory rather than to empirical research. Through this study-approach an in-depth analysis was made for this contemporary phenomenon of global governance associated with Pandemic issue COVID-19 using multiple sources of evidence and combining theoretical thinking (development of innovative concepts) and empirical reflection.

The secondary sources were used to address the research problem formulated, in combination with the accessibility of primary material and the available resources at the moment.

## 2. GLOBAL GOVERNANCE AND PANDEMIC COVID 19

Global governance as a term sometimes is confronted and contestable (Dingwerth and Pattberg, 2006). Finkelstein (1995) argues, “We say ‘governance’ because we don’t really know what to call what is going on,” and that ‘Global Governance’ appears to be virtually anything”.

Moreover, when the language of global governance is evoked, the global rules and norms are intended to become a substitute for the authority and rule of territorial state. This result raise when the mechanism of global governance is supposed to embrace the functions of the state which is no longer able to perform due to their global norm. This puts global governance in opposition to the principle of sovereignty (ibid).

An awareness of conceptual ambiguity led to conclusion that global governance is a theme in need of focus (Graam and Powel, 1994). The important perspective is presented by the advocates for strengthening the UN as a center of Global governance. The commission on global Governance within the UN has proposed a program for reinventing the UN with enhanced legal order. They define global governance as a follow: “Governance is the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be their interest (Commission on Global Governance, 1995). According to Rosenau (1992), the term global governance for the first time is used in order to emphasize the implication of widespread reorientation of individuals, political skills and horizons. Moreover, for him Global governance is closely related with the work to recognize the global change and to reduce the complexity (Rosenau, 1992). While to point out that governance is not synonymous with government, we need to stress that the government are backed by formal authority and also with power to ensure their policies. But in contrast governance perform activities backed by shared goals which not necessarily rely a police power to overcome defiance and attain compliance (Rosenau, 1992).

According to Latham et al. (1999) we have another approach to global governance similar to Keohane definition which states that governance in the global arena refers to all governance that occurs throughout the global order. Thus, the former still operates at the state level even if its operation is global (Latham et al. 1999).

In order to clarify global governance Gordenker and Weis (1999) define the global governance as “efforts to bring more orderly and sociable responses to social and political issues that go beyond the capacities of states to address individually”. In other words, thus reflect situation which various state and

non-state actors are in scene, in process of making a global rule protecting their interests as we have same situation with COVID-19 (request for isolation-quarantine and other precaution measure).

The moral component is an important in this discourse. Moreover, for Habermas (1998) moral norm are valid if “the foreseeable consequences and side effect of its general observance for the interest and value orientations of each individual could be jointly accepted by all concerned without coercion. Moreover, it is integrated approach with the diversity of actors in behaving and accepting the diversity of values among each other. Thus, the process must be seen not solely by individual action of a broad picture of global governance but as a temptation to bring in an integrated framework, legally, economically, culturally.

However, the formulation, implementation monitoring and enforcement of societal rules could in principle also occur through nonofficial channels (Sholte, 2004; Brasset, 2008).

Moreover, the legitimacy with the recommendations from the World Health organization how to deal with the pandemic COVID-19, management of Borders and other internal precaution measure as an isolation and limitation of fundamental freedom of citizens as free movement of people, goods, labors, restriction for assembly, restriction of assembly and religious practice and other recommendations all in function for prevention from COVID-19 and a precaution measure to handle the COVID-19.

Moreover, we need to accept global governance as a set of power relation that extends across multiple levels (from local to global) multiple players (public and private) and different dimensions psychological, racial, familiar in order to avoid limitations of previous approaches (Sholte, 2004; Brasset, 2008). The implementation of measures concerning with the pandemic COVID-19 show up new impetus or new reality, the legitimacy without contestation. Although, this new dimension of behaving has emerged as a reflection for new concept concretely a global ethic with moral denomination, only in the pandemic era. The former director of IMF Horst Kohler has affirmed: “A global world needs a global ethics” (Sholte, 2004; Brasset, 2008). Importance of ethics has raised in governmental and civil sector. In this line, Higgot (2000) stipulates: “Politics in the context of the emerging global conversation about governance, needs to be understood as not only the pursuit of effective and efficient government, but also a normative, indeed explicitly ethical approach to the advancement of a more just agenda of global economic management (Higgot, 2000).

### **3. THE UN REFORM AS A CHALLENGE FOR GLOBAL GOVERNANCE**

The central challenge for the UN today is that the institutional framework and the capacity within the UN for dealing with contemporary global challenges are not equal with the scope, scale and nature of the challenges themselves.

United Nation can play important role in establishing a credible global governance system of rule. Moreover, UN with their credibility can be in purpose for successful coordination and cooperation among national sovereign states. Rosenau express his view that the world is divided into two systems the system of sovereign states and emerging multicentric world and the United Nations play the solitary role as the bridge between them. (Rosenau and Czeimpel, 1992).

The UN has the potentially to ensure that the ideas, norms and rules which underpin global governance reflect the diversity of values and interest in the world (Makinda, 2000). The external or judicial sovereignty is important component of state, which has over it no other authority than that of international law (Smit, 1999; Rugie, 1998). Thakur (2000) argued: “The greatest strength of United nations is that it is only universal forum for international cooperation and management. It must to continue to play crucial role in establishing normative order which strikes balance between the competing demands of equity and political reality” (Thakur et al. 2000). Therefore, to restore legitimacy UN is a best tool for renovation of existing legal order, from it generated numerous norm and legal agenda, and such issues as an environment-climate issue, migration, human rights and other area protecting global public goods and today pandemic COVID-19. However, Vienna declaration and

Program of action gives new dimension reflecting diversity and recognizing the significance of national and regional particularities and various historical, cultural and religious background (ibid).

There are several explicit reflections of institutional inadequacy that are at present under analysis and which have generated proposals for reorganization. First, the United Nations Security Council as a creation of the post-World War II alliance is provoking a crisis of obsolescence. The deliberation about representation and decision-making is in process. The second and third largest economies in the world, Germany and Japan are not represented as permanent members of the Security Council. But also Turkey and Islamic Countries and non-developing countries are not represented either. Thus, imply new solution and restructuring the UN -Security Council. Global challenges in the global age seem to be characterized more by interactions and communications rather than by isolation. Moreover, the Syria war and their reflection with suffering of millions of people and migration is best example for passive watching and by end of the day, breach of international law and abuse of power. However, within the UN as an international organization we need to perform new regulation for reorganization. Thus, reflect an international system based on specialized agencies into a state of inadequacy as the nature of contemporary interrelated problems exceeds their expertise based on specialization (Current situation with the World Health Org) (Ibid).

Confirming that, the institutional framework today is inadequate, it does not mean that it's not possible to invent a new formulation that is fully adequate and achieves perfect enhancements on all fronts.

#### 4. THE PRECAUTIONARY PRINCIPLE

The precautionary principle has increased as an important issue in multilateral environment agreements especially during the current situation with COVID-19. Although the principle where contentious during the negotiations leading to the 2001 Stockholm Convention on Persistent Organic pollutants<sup>29</sup>. This principle is important and requires observing their role in international environmental Law and managing the interdependence among states globally. Vital measures are appropriate when trying to control the spread of any or all infectious diseases. Some academics indicate that the main role of precautionary principle is the redistribution of the burden of scientific uncertainty (Maguire and Ellis, 2005). Different medical protocols and different measures taken by states all around the world enforce this uncertainty, thus institutionalizations of precautionary norms domestically, rise to be carried out at the global level, which reinforces the multilateral processes. The German Vorsorgeprinzip is typically related with the conceptual origins of the precautionary principle (Churchill and Freestone, 1991). Thus, also transmitted by 1991 as the “most important new policy approach in international environmental cooperation” (Ibid:36). After reviewing the international legal tool incorporating precaution, from Commission side it's argued that the principle” has been progressively consolidated in international environmental law, and so it has since become a full-fledged and general principle of international law”<sup>30</sup>. Moreover, it's “crystallized into a norm of customary international law” (McIntyre and Mosedale,). However, we have different set of opinions or contradictory about the precautionary principle as impractical or source for protectionism<sup>31</sup>. It was introduced in the international agenda in the case of marine pollution<sup>32</sup>. The principle has become established as a prevention norm in different issue in international agenda or in global governance related to climate change where States Parties “should take precautionary measures to anticipate, prevent

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<sup>29</sup> Convention on Persistent Organic Pollutants, 22 May 2001, 40 I.L.M.532.

<sup>30</sup> Communication from the Commission on the Precautionary Principle, COM (2000)1 final: 10 (hereinafter EC Communication on the Precautionary Principle).

<sup>31</sup> EC Communication on the Precautionary Principle, p. 6.

<sup>32</sup> Ministerial Declaration, Second International Conference on the Protection of the North Sea, London, 24–25 November 1987. See also, for example.

or minimize the causes of climate change and mitigate adverse effects “(United Nations Framework Convention on Climate Change, 9 May 1992, 31 I.L.M.849, art. 3). Another requirement imposed is that the measures taken “should be cost effective so as to ensure global benefits at the lowest possible cost” (Ibid).

The precautionary principle has also been incorporated into the WTO agreement on the application of SPS measures those necessary to protect “human, animal or plant life or health” and also used in several trade disputes. The European Union invoked the precautionary principle in support of its ban on importations of hormone-treated beef from Canada and the United States. The ban was declared to be in violation of GATT/WTO obligations: Report of the Appellate Body, EC Measures Concerning Meat and Meat Products (Hormones), WT/DS26/AB/R, 16 January 1998 (Appellate Body Report), but the relevance of precaution to international trade disciplines was acknowledged. The most important embodiments of precaution in international legal instrument Rio Declaration concretely the principle 15 which represents orientation point with the international legal meaning or almost the core principle in international law. The principle stipulates “In order to protect environment the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation”<sup>33</sup>. The principle encourages policymakers to avoid the paralysis of scientific knowledge uncertainty (McIntyre and Mosedale). Particularly for global governance is important to specify the outcome: put into effect the Stockholm Convention with the 151 states signatories, seventy-six of which were full parties having ratified domestically. Moreover, the precautionary principle contributes to overcome pandemic situation with Covid 19 and can facilitate the management of interdependence and increase the policy coordination among state. More recently international relation is concerned with different viruses and diseases and also with ecological issues (Lipschutz, 1997). In ecological processes and economic activities some unilateral attempts by states to prevent some certain environmental impacts are doomed to failure, because of prior commitment for arbitration as in WTO (Litfin 1999). Coordinated multilateral precautionary action on the global stage is response to the mutual weakness experienced by States.

## 5. GLOBAL PUBLIC GOODS AND GLOBAL GOVERNANCE

The contemporary context, we have human, economic and environmental interdependence. In light of these interdependencies the current system and international law are challenged with non-exhaustive list of need, starting with the current situations with the pandemic COVID-19 virus (concerning the public health), refugees, international crime, poverty, international peace and environment<sup>34</sup>. All these are questions of Global Public goods. The question which arises is whether current international legal order is capable to cope with the challenges of reality. Market does not perform in efficient manner with regard to Global Public goods. Important difference between Public and Private public goods are non-excludability and non-rivalry (see Samuelson, Cooter and Ulen). The different problems which challenging as well as a social, cultural, environmental and other telling us the allocation of goods isn't in optimal way. As an example, the environment the different measures taken individually by state or action on climate change has failed or are not satisfying. It is argued with the evidence of negative impact upon the atmosphere. The GPG with the problems occurring among us, require integrated solutions<sup>35</sup>. As example the deliberation about implementation of Kyoto protocol.

<sup>33</sup> Rio Declaration on Environment and Development, Report of the United Nations Conference on Environment and development, UN Doc. A/CONF.151/6/Rev.1(1992), 31 I.L.M.874(1992)

<sup>34</sup> See basic document, [http://www.icjci.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER\\_II](http://www.icjci.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER_II)

<sup>35</sup> EU Focus on Global Public Goods, The EU at the WSSD, 2002, <http://europa.eu.int/comm/environment/wssd/publicgoods.pdf>. (13 November 2003).



Discussing the different problems taking place in international arena the Security Council has declared in its Summit declaration of 31 January 1991 that the threats to international peace and security can evolve from "sources of instability in the economic, social, humanitarian and the ecological field"<sup>36</sup>. Despite this declaration Security Council hasn't taken any enforcement measures to protect other Global Public goods than international peace and security<sup>37</sup>.

The current situations in the global level, verifying that, to achieve better result, there is the need for coordination and agreement. For better allocation of GPG's the problem rose with noncompliance. In Hobbes theorem is pointed: "Some transaction costs are endogenous to the legal system in the sense that legal rules can lower them" (Cooter, 1982). Law must prevent coercive threats and to eliminate the destructiveness of disagreement. This is called the normative Hobbes theorem. If there is only disagreement in society, there will be chaos in society. Thomas Hobbes (17 century) thought that people would seldom be rational enough agree, even if there no serious impediments to bargaining (*homo hominis lupus*). There natural cupidity would lead them to quarrel unless a third, stronger party forced them to agree. This idea is explained at length in Cooter (1982), "The cost of Coase". To protect global common, we need to work on definition for sustainable arrangement on global governance. Present generation should weight the impact of their action on future generation (see Kaul, Grunberg and Stern, *year*). In interaction between states for allocation of GPG's is desirable outcome of agreement pursued by justice and the aimed-on confidence building as an example for the EC treaty. There is also currently no exit option in the EU treaty. This might change when the new European Constitution is adopted in this process must be involved multiplicity and diverse actor for achieving lower transaction costs. Probably principle "res comunis" and common heritage of mankind stresses and hold right to use GPG's but also implies obligation for all. The current reality with pandemic situation has affirmed that the obligation not rest only on government but also on "citizens, as individuals and as members of different private groups and association. It's important that the national legal order must be linked with international legal order and so international interest become national interest (K. Annan, 1999).

## 6. ISLAM AND MEASURE CONCERNING THE PANDEMIC COVID 19

The contemporary situation and precaution measure with pandemic COVID-19 are similar with the infection control in Islam which includes isolation and quarantine.

In the context of the discourse here is useful concept of soft power in relationship of religion in the international arena as a "Capability of an entity, usually but not necessarily state to influence what others do through attraction and persuasion" (Haynes, 2009).

Islam as world faith is a holistic belief system and it takes into account the physical, emotional, and spiritual wellbeing of individuals and societies. Moreover, the care for the human being is important, safeguarding communities, including its weakest members, is of principal importance. More than 1400 years ago, Prophet Muhammad, may the mercy and blessings of God be upon him, was teaching his followers hygiene practices that are still applicable in the 21<sup>st</sup> century.

The recommendations and teaching of Prophet Muhammad, give you an idea about, that clearly indicates Islam's stance on coughing and sneezing openly. Prophet Muhammad educated the believers to cover their faces with hand or something else when sneezing(Imam Mustadrak Haakim *Al-Mustadrak ala aṣ-Ṣaḥeḥayn*).

Prophet Muhammad, may the mercy and blessings of God be upon him, introduced strategies that are today implemented by many governments' public health authorities. He recommended his followers (the believers) not to travel to places known to be afflicted with illness and he advised those in the contaminated areas or people not to leave and spread the disease further afield. The Prophet Muhammad

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<sup>36</sup> UN Doc. S/42111 (1992).

<sup>37</sup> Ibid



said: **“If you hear that there is a plague in a land, do not enter it; and if it (plague) visits a land while you are therein, do not go out of it”** (Imam Sahihul Buhary) Therefore, the Prophet also advised ill people not to visit healthy people. Different states around the world have different strategy, some of them are legally able to oblige sick, infectious people to remain in quarantine or in isolation and to keep distance in order to stop the spread of disease.

The teaching and principles of Islam are intended to benefit all of humankind. Instructions and recommendations for personal hygiene and cleanliness promote the well-being of individuals and communities. Precaution and Infection control is important in Islamic hygiene behavior. Washing the hands, the mask-covering the mouth when sneezing or coughing, voluntary isolation, when one is feeling unwell, and restricted travel is an effective and comprehensive public health strategy. Precaution and other measures taken in the 21<sup>st</sup> century to prevent the spread of infections and viruses conform almost exactly to the hygiene and infection control practices taught by Prophet Muhammad. Islam is a religion concerned with creating a society of healthy believers.

## CONCLUSION

The international organizations their accountability, legitimacy and effectiveness require more attention. We must be aware about the fact that we have different approach arranging the global governance process and also with the fact that in some cases we are facing with double standard. Recent development shows us how is difficult to treat some sensitive issue thorough Security council. Because Intergovernmental and multilateral treaty making process under UN sponsorship provides god opportunity for future, but at the moment they are facing with lack of legitimacy (The UN and the Security Council, and at the moment WHO).

However today is important to mention that we are in the need for clear and legitimate system within a function to cope with the internal and external challenges among member to avoid conflicts and to perform abilities and rules how to achieve the balance between members. Dynamic of globally changes to contemporary world require dynamic answer. Some of the functions of governance are performed by the activities that are not product and result from the government but from the treaties or international agreements. Its show us that we have a need for management of communication between states globally not only for the trade, to remove the barriers of misunderstanding for the ability to implement more international agreements and to have coordination in the function to cope with challenges of contemporary and future crisis.

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