



Универзитет „Св. Кирил и Методиј“
ЕКОНОМСКИ ИНСТИТУТ

ISSN 1857-7741 (online)
UDC - 338

Economic development

ЕКОНОМСКИ РАЗВОЈ

Journal of
The Institute of Economics - Skopje
Year.19
No. 3/2017



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ЕКОНОМСКИ РАЗВОЈ

JOURNAL OF THE INSTITUTE OF ECONOMICS - SKOPJE

Year. 19 No. 3/ 2017

Skopje, December, 2017

Economic Development

Published by:

Institute of Economics-Skopje, University “Ss. Cyril and Methodius”,
Republic of Macedonia

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Cover design: Koco Fidanovski

Computer preparation and printing: MAR-SAZ TASKO DOOEL-Skopje

UDK-CIP Catalogue record from National and University Library

“St.Kliment Ohridski”-Skopje

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Published **three times per year**

Available on the websites: www.ek-inst.ukim.edu.mk

Abstracted/indexed in: *EBSCO Business Source Complete, EBSCO*

Discovery Service (EDS) in EBSCO Publishing Database, (Ipswich USA);

CEEOL Central and Eastern European Online Library, (Frankfurt, Germany)

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Dear reader,

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Skopje, July, 2017

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Editor-in-chief

BILJANA ANGELOVA*
ISKRA STANCHEVA GIGOV**

COINCIDENT INDICATOR FOR ASSESSING THE STATE OF THE BUSINESS CYCLE IN REPUBLIC OF MACEDONIA

Abstract

Assessing the state of the business cycle is a complex task that requires a lot of expertise. In developed countries special committees for business cycle dating (such as CEPR or NBER committees in the EU and the USA) are being formed and these committees inform the concerned public about the most recent business cycle developments. In developed countries can also find a plenitude of business cycle indicators developed for the purpose of presenting business cycle information in a way more apprehensible to the general public. However, in Balkan countries, except Croatia, neither business cycle committees nor business cycle indicators exist. Such a situation is thus ideal for the proliferation of irresponsible and populist economic policies that thrive when general public is uninformed about the actual state of the economy. Therefore, the tendency of this paper is to demonstrate and master the previously developed methodology applied by Croatia in order to be able to apply it in the future in the Republic of Macedonia, and thus to assess the business cycles through the construction and assessment of the coincident indicators. The obtained indicators will show the current phase of the cycle of the economy and what measures should be taken.

Key words: business fluctuation, cycle, coincident indicator, economic activity, peaks and troughs

JEL classification: E3, C5

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Introduction

The conditions of the business cycle are of paramount importance in any economy around the world. The business sector, the financial markets and the institutions responsible for implementing various economic policies, devote huge resources to assess the continued development of the state of the real economy. In order to avoid the disadvantages of the only indicator of the business cycle conditions available from the official statistical offices (services), which is the Gross Domestic Product (GDP), efforts are being made to accurately determine the current state of the real economy, which are necessary. For this purpose, several new approaches have been developed in the literature in order to find alternative solutions for approximating the conditions of the business cycle. One of those ways is the creation of different indicators for tracking business cycles, such as Leading, Coincident and Lagging indicators. The indicators for tracking the activities of the business cycle (especially the Coincident and leading economic indicators) are the focus of the academics and policymakers. Leading indicators are those that are usually used as a tool for predicting the business cycle development, while coincident indicators are used as a tool for assessing the current state of the business cycle and possibly for predicting the immediate future.

Given the importance of this type of indicators, in this article focus is on showing the way in which the coincident indicator of real economic activity is constructed using a dynamic factor model, combined with a correlation analysis, logit and Markov switching (MS) model. In order to easily understand the construction of this indicator, it is more specifically represented by the example of Croatia. This is done in order to serve as an example of how such a composite coincident indicator could be built in the Republic of Macedonia, which is especially important when making business decisions and creating macroeconomic policies of the economy.

1. INDICATORS FOR TRACKING THE BUSINESS CYCLE ACTIVITIES

In the theory and practice several cyclical indicators are applied in order to track the activities of each business cycle. Basically, they can be classified into three categories, according to their usual timing of calculation in terms of the business cycle: leading indicators, coincident indicators, and lagging indicators.

Leading indicators are determined for categories that predict a change in the business cycle. Leading indicators are indicators that usually, but not always, change before the economy as a whole changes.¹ These types of indicators signal future events. For example, stock market returns are a leading indicator: the stock market usually begins to decline before the economy as a whole decline and usually begins to improve before the general economy begins to recover from a recession. Other leading indicators include the index of consumer expectations, building permits, and money supply (M1, the stock price, credit). Despite these other potential leading indicators might include: the confidence of producers/consumers; activity/orders of companies; international indicators; prices (interest rates, exchange rates), vacancies, bankruptcies.

Hence, in principle there are 5 leading indicators in total, of which 4 are confidence indicators (Table 1). This is quite logical, because as a sentiment factor, confidence in the economy will adjust to the business cycle faster than the physical economic indicators and labor market indicators (production, unemployment, consumption, exports, bankruptcy, etc.).

Table 1. Phasing of business cycle indicators

Business Cycle Phasing	Sentiment Indicators	Economic Indicators	Labour market Indicators
Leading	Consumer - confidence Large purchases Producer - confidence Orders received		Temp jobs
Coincident		Manufacturing Fixed capital - formation Consumption Exports GDP Capital market rate	Bankruptcies
Lagging			Vacancies Unemployment Labour volume

Source: CBS

Source: <https://www.cbs.nl/en-gb/background/2009/42/the-business-cycle-tracer-leading-coincident-and-lagging-indicators>

¹ Sullivan; Steven M. Sheffrin, Economics: Principles in action. Upper Saddle River, New Jersey 07458: Pearson Prentice Hall, 2003, p. 314.

As a rule, leading indicators are the first to show how macro-economic activity is headed in the medium term. Normally they move into a next phase an average six months earlier than the coincident indicators.

Lagging indicators are indicators that usually change once the economy as a whole changes. Usually the lag is for several quarters of the year. The unemployment rate is a lagging indicator. Namely, employment tends to increase two or three quarters, after the improvement of the general economy. In the performance measurement system, the profits earned by the business is a lagging indicator so that it reflects the previous efficiency; similarly, improving customer satisfaction is the result of initiatives taken in the past.

Lagging economic indicators provide the final, conclusive evidence that peaks and troughs did occur, making it possible to direct attention to the next phase of the business cycle. These lagging indicators are the second confirmation that the business cycle has moved to or is in a next phase. And it is no coincidence that the 3 lagging indicators are all labour market indicators: labour volume, job vacancies and unemployment (Table 1). Compared with the other two groups of indicators, the movements of the lagging indicators are the calmest. Once they begin to change, there is no doubt about the way the economy is headed. The role of the lagging indicators is mainly to confirm the durability of the business cycle changes. This is important because the course of the cycle is not constant but variable.

Coincident indicator, is created as an indicator that changes along with the business cycle and it provides information about the current state of the economy. It contains all information that otherwise would be calculated by analyzing a number of economic series. Hence, it is an ideal tool that the public can use to keep track of the business cycle trends and in that way to make every decision of public policy in an appropriate economic context.

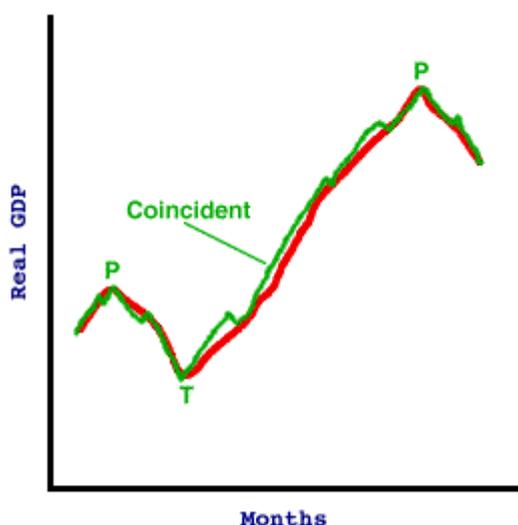
In general, these indicators are a series of data composed of several measures of economic activity collected from different sources in order to track the activity of the business cycle on a monthly basis. In particular, they measure four key aspects of the aggregate economy:

- employment,
- production,
- income and
- sales.

When concerns are directed toward the current state of the macroeconomy, these are the four most important areas of interest. When the aggregate economy is expanding or contracting, these are the four areas that are expanding and contracting. Each of these four individual areas is useful in its own right, but when combined as a composite measure, even greater insight into the business-cycle activity is achieved. There are 7 coincident indicators (Table 1), of which 6 economic and 1 labour market indicator (bankruptcies). The coincident indicators are very important for the business cycle tracking.

Coincident economic indicators give consumers, business leaders and policy makers an information about the current state of the economy and make it possible to determine in which direction the economy could move. The role of this indicator is to estimate what is the actual frequency (incidence) of the peaks and the troughs of the business cycle at the time when they actually occur.² Namely, when the economy grows, then coincident indicators are also increasing and when the economy falls, then the indicators are also declining at that moment. The coincident economic indicators are used as a primary source of information used to document “official” business cycle turning points.

Chart 1. Coincident indicators



Source: http://www.amosweb.com/cgi-bin/awb_nav.pl?s=wpd&c=dsp&k=coincident%20economic%20indicators

² Smith Emrys Charles, ‘Economic Indicators,’ in Wankel, c. (ed.) Encyclopedia of business in Today’s World, California, USA, 2009.

Chart 1 is used to illustrate how coincident economic indicators relate to the official tracking of business cycle peaks and troughs. First, to take in consideration the somewhat jagged red line shown on the chart, which provides a hypothetical tracking of real GDP over several months. Evident two peaks marked by P and a trough indicated by T. The thin green line that rises and falls along with the rise and fall of real GDP, tracking together the peaks and troughs of the business cycle, is a coincident indicator line that lies almost at the top of the red real GDP line.

Coincident business cycle indicators are useful in three ways. First, it is a single-number business cycle indicator containing information that would otherwise have to be accrued by analyzing a large number of economic time series. Second, unlike the GDP series, it provides monthly estimates of the state of the economy, thus providing information on subtle changes that took place in a short period of time. Third, coincident business cycle indicators are available one to three months prior to quarterly GDP estimates, meaning that policy-makers and the general public can observe the current state of the economy in a timely manner. There are a several other arguments as to why coincident indicators may be a useful alternative measure of the state of the economy compared to GDP. GDP, as well as other economic series, is estimated with noise. On the other hand, the coincident indicator, that uses statistical weights to combine a large number of economic series, can be able to abstract in a certain part of this noise. The assessment of the business cycle based only on aggregate GDP also can not take into account important developments in the various sectors of the economy. For example, estimates of GDP at times can be driven by temporary shocks to one part of the economy, such as short-term shocks to the agricultural sector or to public spending, that are not representative of developments in the broader economy. In addition, coincident indicators could be less prone to the revisions that are made with GDP, in part due to the fact that they can be constructed from series that either are not revised or are subject to smaller revisions.³

³ Gillitzer Christian, Kearns Jonathan and Richards Anthony, THE AUSTRALIAN BUSINESS CYCLE: A COINCIDENT INDICATOR APPROACH, Economic Group, Reserve Bank of Australia, Research Discussion Paper 2005-07, October 2005, p. 1

2. CREATING THE COMPOSITE COINCIDENT INDICATOR

2.1. Literature review

Dynamic factor models used its wider application in the analysis and forecasts of business cycles in the late 1980s, after which a series of papers from Stock and Watson were published. Stock and Watson (1989) applied a single factor to model the co-movements of the four main coincident indicators in United States: industrial production, real disposable income, hours of work and sales. The main assumption of this dynamic factor model is that the given set of data is driven by two components, the first one is an unobservable common component, while the second one is a variable-specific unobservable component. The use of dynamic factor model was further improved by many authors Stock and Watson (1991, 1993), Kapetanios and Marcellino (2003), Forni, Hallin, Lippi, and Reichlin (2000, 2001, 2005), and Doz, Giannone, and Reichlin (2011, 2012).⁴

Unlike the dynamic factor model, Markov switching (MS) model provides a dependency between the growth rate of the variables and the business cycle status. This model after its introduction in econometrics by Goldfeld and Quandt (1973) is extended by Hamilton (1989). The Hamilton's approach is that the expansion and contraction of the business cycle can be seen as different regimes with the business cycle modelled as a Markov chain. Unlike dynamic factor model in which the single unobservable component is continuous, the unobservable component in the MS model is a discrete variable and indirectly determines behaviour of the variables. Hamilton's work contributed to the considerable scope of research that follows, such as those of Diebold and Rudebusch (1996).⁵

According to our findings, there are no studies that use MS model, the dynamic factor model, or the combination of these two models in order to construct a monthly composite coincident indicator for European post-transition countries. It is also characteristic that in recent years in these countries, dynamic factor models have been applied more intensively in order to build short-term composite coincident indicators that are used for predictive purposes. This is the case with Arnoštová, Havrlant, Růžička and

⁴ Bakarić Rašić Ivana, Tkalec Marina & Vizek Maruška, Constructing a composite coincident indicator for a post-transition country, *Economic Research-Ekonomska Istraživanja*, VO L. 29, NO . 1, 2016, p. 436

⁵ *Ibidem*

Luboš (2011) and Rusnak (2013) that develop cyclical indicators for the Czech Republic and Porshakov, Deryugina, Ponomarenko and Sinyakov (2015) that build a composite coincident indicator for Russia.⁶ The only work that combine MS and dynamic factor models (DFM) in order to construct a coincident indicator of real economic activity in Croatia, as one of the post-transition economies, is the one of Bakaric I. R., Tkalec M. and Wizek M. (2016).⁷ It is taken as an example that should be taken into consideration in the Republic of Macedonia.

Considering that in the Republic of Macedonia so far analyzes have been made only in the context of determining the usefulness of applying the leading indicators for tracking and forecasting of the business cycle, and the coincident indicator is not applied at all, it is quite justifiable to see some examples of its application as is the case with the Republic of Croatia. This would be an incentive in the future to carry out such analyzes and to assess the current state of the business cycle by applying the coincident indicator in the Republic of Macedonia.

2.2. The main steps for constructing the composite coincident indicator

Constructing a monthly coincident indicator of real economic activity involves showing the time series that closely and carefully track the entire business cycle and its turning points. Hence, in the example of Croatia, 278 time series available for the Croatian economy are investigated, and those that match the reference GDP and the most probability of entering the recession series are selected. This statistical database covers the most important sectors of the Croatian economy such as:⁸ Prices of industrial products (8 indicators),

⁶ Arnoštová, K., Havrlant, D., Růžička, L., & Luboš, T. P., Short-term forecasting of Czech quarterly GDP using monthly indicators. *Finance a Uver*, 61, 2011, p. 566–583; Rusnák, M. Nowcasting Czech GDP in real time, Working Papers 2013/6, Czech National Bank, 2013; and Porshakov, A., Deryugina, E., Ponomarenko, A., & Sinyakov, A., Nowcasting and short-term forecasting of Russian GDP with a dynamic factor model, BOFIT Discussion papers, 19/2015.

⁷ Bakarić Rašić Ivana, Tkalec Marina & Vizek Maruška, Constructing a composite coincident indicator for a post-transition country, *Economic Research-Ekonomska Istraživanja*, VO L. 29, NO. 1, 2016

⁸ Bakarić Rašić Ivana, Tkalec Marina & Vizek Maruška, Constructing a composite coincident indicator for a post-transition country, *Economic Research-Ekonomska Istraživanja*, VO L. 29, NO. 1, 2016, p. 437

Consumer prices (20 indicators), Industrial production (40 indicators), Construction (3 indicators), Trade (1 indicator), Tourism (6 indicators), Unemployment (7 indicators), Employment (24 indicators), Gross wages (23 indicators), Net wages (24 indicators), Capital market (2 indicators), Monetary statistics (66 indicators), Fiscal indicators (17 indicators), International series/statistics (15 indicators), Foreign trade (22 indicators). In order to choose the series that will form the Croatian coincident indicator, statistical and econometric techniques, i.e. correlation coefficients, logit model and Markov switching (MS) model are used. First of all, from total 278 series, 22 series that have a significant and the highest correlation coefficient with GDP are selected. These are potential components of the composite coincident indicator and they are shown in Table 2.

Table 2. Potential CCI components correlation coefficients

Indicator	Time lag				
	t	t-1	t-2	t-3	t-4
Domestic tourists' arrivals	0.79*	0.76*	0.62*	0.50*	0.33*
Total industrial production	0.85*	0.81*	0.74*	0.57*	0.37*
Gross volume index of industrial production – Intermediate goods	0.81*	0.78*	0.73*	0.54*	0.37*
Gross volume index of industrial production – Consumer durables	0.46*	0.53*	0.59*	0.48*	0.31*
Gross volume index of industrial production – Consumer non-durables	0.71*	0.62*	0.55*	0.38*	0.19
Gross volume index of industrial production – Manufacturing	0.84*	0.79*	0.72*	0.55*	0.35*
Gross volume index of industrial production – Other mining and quarrying	0.61*	0.60*	0.56*	0.44*	0.28
Gross volume index of industrial production – Manufacture of food products	0.72*	0.70*	0.56*	0.49*	0.35*
Gross volume index of industrial production – Manufacture of fabricated metal products, except machinery and equipment	0.79*	0.77*	0.66*	0.44*	0.31*
Volume index of real retail sales	0.76*	0.78*	0.75*	0.61*	0.45*
Total import of goods	0.83*	0.77*	0.65*	0.45*	0.23
Import of food and live animals	0.71*	0.59*	0.41*	0.19	0.08
Import of machinery and transport equipment	0.77*	0.68*	0.56*	0.43*	0.23
Import of miscellaneous manufactured articles	0.90*	0.85*	0.71*	0.50*	0.38*
Newly registered unemployed persons	-0.75*	-0.72*	-0.56*	-0.35*	-0.16
Value added tax revenues (net)	0.74*	0.69*	0.65*	0.50*	0.32*
Employment contribution revenues	0.70*	0.62*	0.56*	0.50*	0.38*
Money M1 (in million kuna)	0.65*	0.68*	0.64*	0.57*	0.44*
Broadest money M4 (in million kuna)	0.47*	0.43*	0.35*	0.35*	0.32*
Time and savings deposits with banks (in million kuna)	0.77*	0.70*	0.56*	0.46*	0.37*
Loans to households (in million kuna) – nominal	0.69*	0.64*	0.59*	0.54*	0.50*
Spread: Long-term credits indexed to foreign currency RH (total average) – Euro Area 12-month money market rate	-0.71*	-0.76*	-0.74*	-0.70*	-0.56*

Source: Bakarić Rašić Ivana, Tkalec Marina & Vizek Maruška, Constructing a composite coincident indicator for a post-transition country, Economic Research-Ekonomska Istraživanja, VO L. 29, NO. 1, 2016, p. 440

Further, it is continued with logit analysis using 11 variables that are characterized not only by the highest current coefficients of the correlation, but also with a higher level of aggregation of data, since the higher series aggregation more realizes the behavior of the referent GDP series.

In the next step, the Markov switching (MS) model is applied in order to derive the smoothed probability of entering in recession from the series of real GDP in the first differences. This probability is used to build a binary series that proxies recessions and expansions using the transformation rule. Namely, the dependent variable was obtained by converting smoothed transition recession probabilities into a discrete variable that defines whether the economy is in an expansion or recession regime at time t . The dependent variable has value 1 if there is a recession (transition probabilities are greater or equal to 0.5), and has value 0 if there is expansion (transition probabilities are smaller or equal to 0.5).⁹

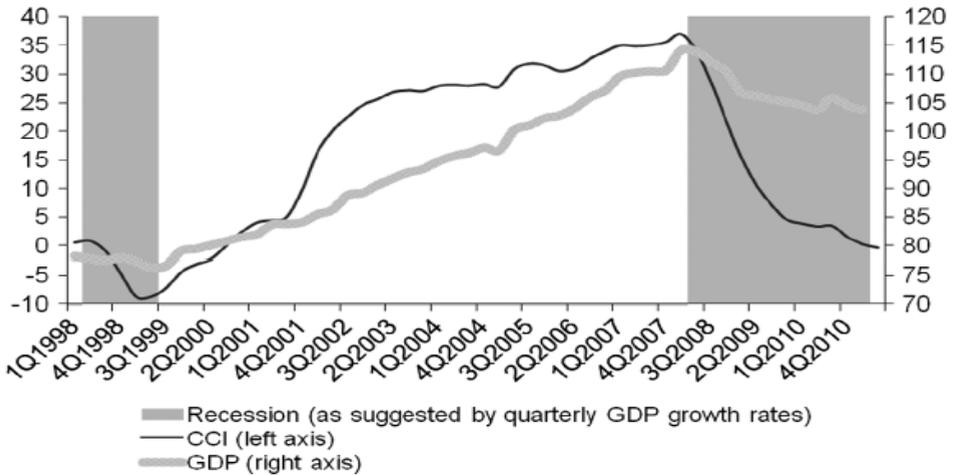
As a third step, the logit model is applied in order to determine the final components of the composite coincident indicator. Logit assessment begins with a wider model that includes the dependent variable, constant and potential components of the coincident indicator in annual growth rates in time t , $t-1$, $t-2$, and $t-3$. On the basis of z-statistics and their p-values, those time series that have the best coincident properties, i.e. those with highly current growth rates, the lowest Schwarz information criteria and representative statistics for LR and McFadden R^2 are selected. In the case of Croatia, the results of the logit estimates indicate that the following series should be included in the composite coincident indicator: total industrial production, volume index of real retail sales, value added tax revenues (net) and broad money M4.¹⁰

Once the best components of the coincident indicator have been identified, the dynamic factor model is applied and its common component i.e. the monthly composite coincident indicator is estimated. It represents the overall fluctuations of the business cycle instead of GDP. Chart 2 presents the estimated common factor of the coincident indicator that is based on four coincident variables and compares it with the series of GDP in order to show how really the composite indicator coincides with the overall business cycle trends, in the case of Croatia.

⁹ *ibid.*, p. 438 and 440

¹⁰ *ibid.* p. 441

Chart 2. Composite coincident indicator and GDP



Source: Bakarić Rašić Ivana, Tkalec Marina & Vizek Maruška, Constructing a composite coincident indicator for a post-transition country, *Economic Research-Ekonomska Istraživanja*, VO L. 29, NO. 1, 2016, p. 442

As can be seen, the composite coincident indicator closely follows the behavior of GDP, and corresponds to changes in the business cycle mode, whose dating is based on quarterly GDP growth rates. This suggests that the monthly coincident indicator can be used not only as an indicator of the business cycle, but also as a tool for predicting future business cycle trends.

Conclusion

By applying the coincident indicator, the activity cycle of the business cycle is tracked on a monthly basis, for a certain period, the subtle changes that occurred in a short period of time are realized and the real frequency of the peaks and troughs of the business cycle are determined in the time when they actually happen. Thus, the “official” turning points in the business cycle are documented and consumers, business leaders and policy makers are provided with information on the current state of the economy and the direction in which the economy could move in the future. Thus, from what has been shown for Croatia, it is concluded that the composite indicator successfully fulfills its goal to closely monitor the behavior of GDP, and the changes in its trend correspond with changes in the business cycle regime (ie recessions and expansions). This points to the exceptional importance and

usefulness of the composite coincident indicator for each economy, as well as for the Republic of Macedonia. Hence, the elaborated methodology used in constructing the composite coincident indicator and the concrete example presented for calculating this indicator in the case of Croatia is expected to stimulate and facilitate in the future the application of this indicator in assessing the business cycle current situation in Republic of Macedonia. With the building of this indicator can be interpreted monthly changes in the value of the index and present findings obtained from the analysis of the index. This will show in which phase of the economic cycle the economy is located and what are the key points where it is necessary to intervene in the future. It will certainly help a lot of consumers, business leaders and policy makers to learn about the current state of the economy and the direction that could move the economy, which more appropriately can define economic policies.

References

1. Arnoštová, K., Havrlant, D., Růžička, L., & Luboš, T. P., Short-term forecasting of Czech quarterly GDP using monthly indicators. *Finance a Uver*, 61, 2011
2. Bakarić Rašić Ivana, Tkalec Marina & Vizek Maruška, Constructing a composite coincident indicator for a post-transition country, *Economic Research-Ekonomska Istraživanja*, VO L. 29, NO. 1, 2016
3. Christian Gillitzer, Jonathan Kearns and Anthony Richards, THE AUSTRALIAN BUSINESS CYCLE: A COINCIDENT INDICATOR APPROACH, Economic Group, Reserve Bank of Australia, Research Discussion Paper 2005-07, October 2005
4. Porshakov, A., Deryugina, E., Ponomarenko, A., & Sinyakov, A., Nowcasting and short-term forecasting of Russian GDP with a dynamic factor model, *BOFIT Discussion papers*, 19/2015
5. Rusnák, M., Nowcasting Czech GDP in real time, *Working Papers 2013/6*, Czech National Bank, 2013
6. Smith Emrys Charles, 'Economic Indicators,' in Wankel, c. (ed.) *Encyclopedia of business in Today's World*, California, USA, 2009
7. Sullivan; Steven M. Sheffrin, *Economics: Principles in action*. Upper Saddle River, New Jersey 07458: Pearson Prentice Hall, 2003
8. http://www.amosweb.com/cgi-bin/awb_nav.pl?s=wpd&c=dsp&k=coincident%20economic%20indicators
9. <https://www.cbs.nl/en-gb/background/2009/42/the-business-cycle-tracer-leading-coincident-and-lagging-indicators>

BILJANA ANGELOVA*
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**ECONOMIC AND DEVELOPMENT ASPECTS OF INVESTMENT
PROJECTS FOR ENERGY EFFICIENCY**

Abstract

Satisfying the country's energy need is limited by the available energy and economic resources, but also from economic, political and energy conditions in the immediate and wider environment.

The environmental consequences of energy consumption are topics that have long been neglected, generally speaking, there is still not enough account for the social, environmental, economic, and security aspects of energy use, in order to meet the growing energy needs.

Energy efficiency is primarily a matter of awareness of the people and their desire to change their habits towards efficient energy consumption and sustainable development, rather than working on complex technical solutions.

For the application of new technical measures should be decided on the basis of their economic viability, which the family will raise energy and economic efficiency.

Key words: energy efficiency, sustainable development,
economic efficiency

JEL Classification: Q01, Q53, Q56

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Introduction

Energy is generally involved in all spheres of life and as a catalyst for all productive activities and supporter of the social activities. The amount and structure of energy consumption depends on the general state of the economy, especially the manufacturing and service sector, but also from the general level of development of the country and cultural values of all the beliefs and norms.

When providing recommendations to improve energy efficiency was first necessary to consider the habits of consumers and their focusing on conscious and conscientious choices of energy use. Such measures are free, and can contribute to significant energy savings. Even after you develop the level of awareness among consumers about the use of efficient energy consumers need to focus on new technical measures to reduce energy consumption.

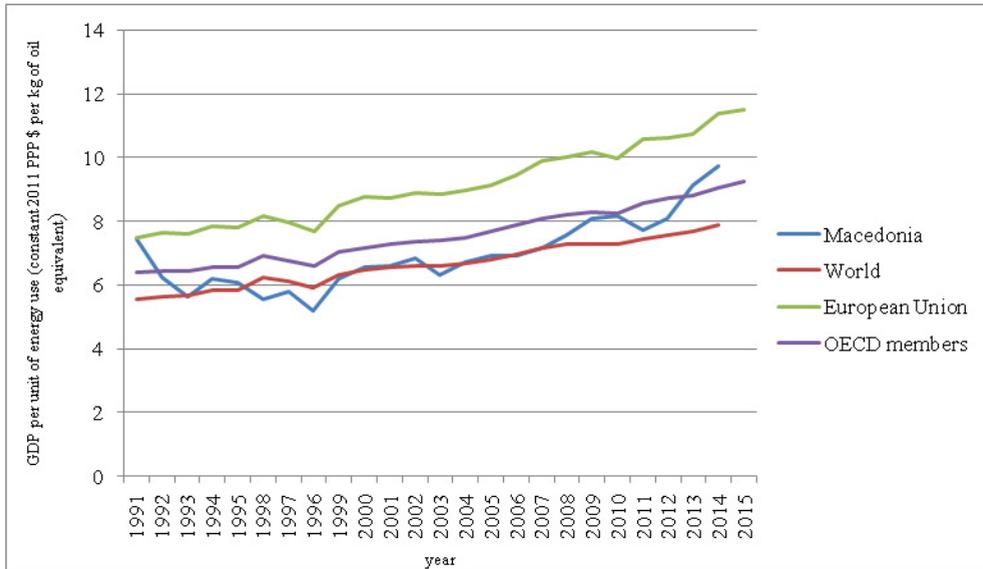
The accelerated technical and technological development, demographic changes and the increase in the consumption of all types of goods, without exception, result in pollution of the environment and devastation of the basic life resources. The construction and use of buildings in the housing and public sector, as well as the commissioning of energy systems, has a negative impact on the environment, which points to the need for a new environmentally conscious and conscientious approach.

1.ENERGY EFFICIENCY

1.1. What is Energy Efficiency?

Energy efficiency implies the achievement of equal quality and level in the production of goods and services with less amount of used energy. With the increase of energy efficiency, many economic, social and environmental problems are being solved. The energy efficiency from 1991 to 2015, as GDP per unit of energy consumed, has been steadily increasing in the world, the EU and the OECD mark continuous increasment, and in Macedonia until the first half of the 1990s.there is decreasing, but then there is steady growth, in 2014 the level of energy efficiency is higher than in the World and OECD, but lower than the EU, see Chart1.

Chart1. Energy efficiency,1991/2015



Source:World Bank:World Development Indicators,GDP perunit of energy use (constant 2011 PPP\$ per kg of oil equivalent, 1991-2015,Last Updated:03/23/2017

According to the International Organization for Standardization, Energy Efficiency is a relationship or other quantitative relationship between the result of performance, service, commodity or energy, and energy input.¹

Practically, energy efficiency is a sum of planned and implemented measures aimed at using the minimum possible amount of energy in order to maintain the level of comfort and the production rate to be at the very least. Under energy efficiency, we mean the efficient use of energy in all sectors of final energy consumption, that is, both in the economy and in the households.

1.2 Sustainable Development, Reasons for Energy Efficiency

A key condition for the economic and social development of each country is access to energy at affordable prices. On the other hand, the production of energy and its use significantly affects the environment, causing pollution from a local, regional and global character, resulting in climate change. The consumption of fossil fuels (coal, oil and oil derivatives,

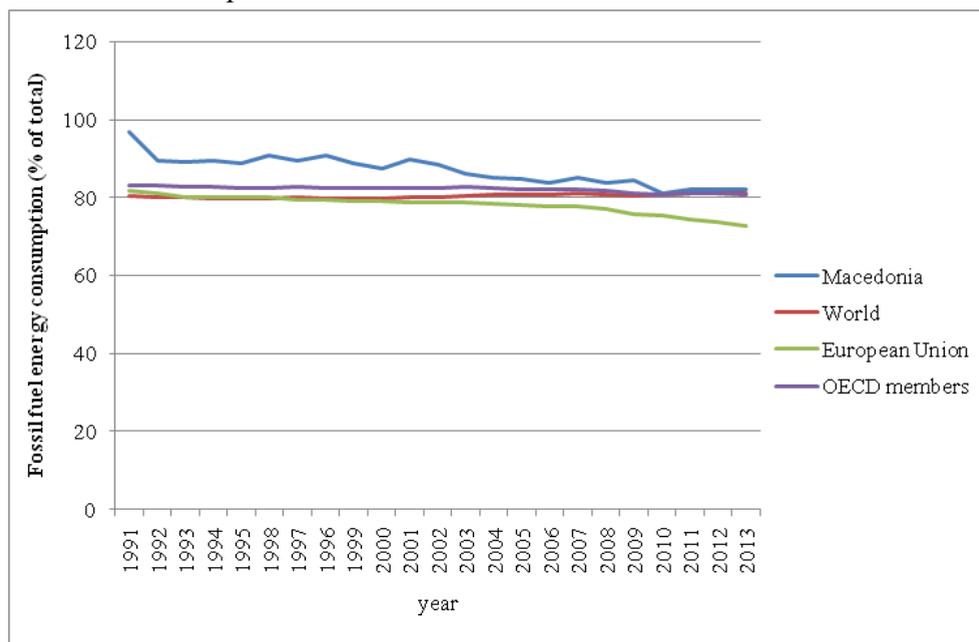
¹ ISO (International Organization for Standardization): ISO 50001: 2011 Energy management systems – Requirements with guidance for use.

and natural gas) is still dominant, both in the World and in Macedonia, EU countries and the OECD, see Chart2.

In the past thirty years, the United Nations has initiated and implemented a number of actions in the field of energy in order to stimulate participation and cooperation between member states in resolving all problems in the use of energy sources as a prerequisite for sustainable development. The focus of the activities is the implementation of Sustainable Energy for All and the achievement of the three goals: universal access to energy, renewable energy and energy efficiency.

Energy is one of the important issues for the EU, and the Energy Commission has two priority areas, Sustainable Development and Economic Reform. The aim of the European Energy Policy is to ensure a secure, stable and sustainable supply of energy at affordable prices. Energy policy is based on the EU 20-20-20 targets to be achieved by 2020, namely, a 20% reduction in greenhouse gas emissions in the EU compared to 1990; A 20% share in energy must be from renewable energy sources in the total energy consumption in the EU; And 20% higher energy efficiency in the EU.

Chart2. Consumption of fossil fuels



Source: World Bank: World Development Indicators, Fossil fuel energy consumption (% of total) , 1991-2013, Last Updated: 03/23/2017.

The EU's long-term goals in reducing greenhouse gas emissions, so by 2050 to be reduced to 80-95% compared to 1990, by supplying energy and maintaining competitiveness. In this context, the EU establishes a predictable framework for energy and climate policies that will cover the time after 2020, providing security for investors, new opportunities for low-carbon technologies and jobs in the EU energy sector. In the framework of energy and climate policies by 2030, the EU predicts encouraging the further development of a competitive and reliable energy system due to: providing access to energy for all; Increased security of energy supply in the EU; Reducing dependence on energy imports; And opening up new opportunities for growth and employment.

In Macedonia, the total energy required by energy types, as well as the final energy consumption by energy type expressed in (%), are given respectively in the Table1 and Table2. The dominant need for solid fuels and petroleum products can be noticed from the tables. According to the State statistical office of the Republic of Macedonia data² in 2015, the total gross primary production of energy in Macedonia is 1.273.340toe or 46.96% of the total energy required. The total energy requirement for 2015 is 2.711.259toe. The largest final energy consumers in 2015 are: traffic with 32.5%, households with 27.9% and industry with 24.5% (of the available final consumption).

The energy sector is directly linked with greenhouse gas emissions, as most of the 80% of the energy produced comes from fossil fuels. These during the combustion emit CO₂, the main greenhouse gas. Due to this fact, the energy policy focuses on reducing the use of fossil fuels and increasing the use of low carbon energy sources.

² STATE STATISTICAL OFFICE OF THE REPUBLIC OF MACEDONIA: Statistical Review 6.4.12.01/707

Table1. Total energy required by energy type(%)

year	Solid fuels	Total Oil products	Natural gas	Electric energy	Hydro-electric energy	Solar energy	Geo-thermal energy	bio-mass	bio-fuel
2000	50,84	34,99	1,94	0,35	3,64		0,56	7,68	
2001	58,00	29,52	2,66	1,38	2,01		0,86	5,55	
2002	46,76	40,56	2,55	2,35	2,25		0,45	5,08	
2003	51,64	31,97	2,36	2,99	4,31		0,48	6,24	
2004	50,40	32,57	2,07	3,68	4,64		0,43	6,22	
2005	50,96	31,84	2,17	4,80	4,48		0,35	5,39	
2006	48,50	33,08	2,27	5,28	4,85		0,35	5,66	
2007	47,98	34,35	2,80	7,06	2,86		0,32	4,63	
2008	49,35	31,28	3,19	7,77	2,39		0,30	5,68	0,04
2009	47,63	34,53	2,27	4,40	3,89		0,35	6,86	0,07
2010 ¹	45,06	32,78	3,31	4,25	7,26	0,00	0,41	6,91	0,02

Source:State statistical office of the Republic of Macedonia, Statistical Review 6.4.12.01/707

¹Preliminary data

Table2. Final energy consumption by types of fuels(%)

Year	Solid fuels	Total oil products	Natural gas	Electric energy	Thermal energy	Geo-thermal energy	Biomass
2000	6.8	41.8	0.4	27.9	9.5	0.9	12.7
2001	6.8	40.3	1.8	30.3	9.3	1.5	10.0
2002	4.1	53.8	1.8	24.0	7.6	0.7	7.9
2003	6.0	42.3	1.9	30.7	8.0	0.8	10.4
2004	6.3	42.1	1.9	31.0	7.6	0.7	10.4
2005	7.7	41.3	1.9	31.9	7.6	0.5	9.0
2006	8.1	40.4	2.0	32.5	6.9	0.6	9.6
2007	9.8	41.7	1.9	32.3	6.0	0.5	7.7
2008	8.3	40.7	1.8	33.5	5.8	0.5	9.6
2009	4.0	43.5	1.7	32.9	5.9	0.5	11.4
2010	6.2	43.0	1.7	32.6	5.1	0.5	11.0

Source:State statistical office of the Republic of Macedonia, Statistical Review 6.4.12.01/707

The Republic of Macedonia has ratified the United Nations Framework Convention on Climate Change and the Kyoto Protocol as a country that is not in Annex I. At the moment, Macedonia has no quantified commitments to reduce greenhouse gas emissions, but will need to be included in the future in common European efforts and goals on climate change. Obligations would be to limit the growth of greenhouse gas emissions. Therefore, when planning future projects in the energy sector, account should be taken of the increased operating costs of coal fired thermal power plants due to the application of measures and policies related to the obligation to purchase greenhouse gas emission allowances, as well as increased investment costs when building a New and revitalization of coal fired power plants due to the requirement for using “clean coal”, that is, in general, to comply with the European standards for large plants.

Today, however, it is recognized in large numbers, primarily in the developed countries, that the previously uncontrolled approach to energy consumption is unsustainable. The approach to human activities on a planet Earth is sustainable only and only then if a certain level of quality of life allows maintaining a natural basis for the future development of all living beings. The principles of sustainable development, generally speaking, oblige to save all types of energy, energy efficiency in all segments of human work (construction, industry, transport, etc.), a significant increase in the share of renewable energy sources and undertaking a number of measures with Purpose environmental protection.

1.3 Economic justification for energy efficiency

Energy is not free, it consumes part of the business or home budget, but this energy price tends to increase continuously, despite its variation. Energy is more expensive, as its resources are limited, environmental protection requirements are stricter, and the reduction of climate change requires major energy intensification. The ability to meet the growing tendency of the price of energy, especially if it is imported, is a challenge for the whole society. The usual opportunities go in the direction of subsidizing or increasing the price of energy. If they had an intervention of the state through the mechanism of energy subsidy, then the increase in the price of energy would not be felt by the economy or the households, but in that case the competitiveness of the economy and the standard of living of households is reduced, that is, for

subsidizing it is necessary To provide funds by redistribution of income from one sector of activities to another, which reduces the competitiveness of the economy, but also the standard of living of households. If the energy price rises then there is a decline in the standard of living of households and a decrease in the competitiveness of the economy. These two common opportunities have the same result in reducing the competitiveness of the economy and the decline in the standard of living in households, and for these reasons they have no economic justification.

According to the neoclassical theory of welfare economics, every balance of economy with perfect competition is Pareto optimal, and that Pareto is an efficient allocation of resources if the free action of the mechanisms of the perfect market is allowed given the initial allocation of resources. Defining the indicators of economic efficiency in the direction of improving the quality, productivity and economy are reflected in: allocation or price efficiency; Production or technical efficiency; And dynamic efficiency. With the allocation or price efficiency it is expected to achieve the price equal to the marginal cost of production of goods, with production or technical efficiency, it is expected to minimize the costs of production, and with dynamic efficiency, optimization of the investment decisions is expected. Assuming the perfect market, all three efficiencies complement one another, but also with Pareto efficiency. The arguments are that the market environment creates pressures for companies to offer better goods to their customers through increased internal efficiency, by reducing costs, which Will result in lower average prices. Also, the exposure of companies to market competition will result in better investment decisions.

2. ECONOMIC ASSESSMENT OF PROJECTS FOR ENERGY EFFICIENCY

Efficient use of energy achieves proportional money savings, that is, a direct reduction in the costs of the energy used. In essence, energy efficiency is its close connection to the economic benefits arising from the implementation of its measures. The main reason for introducing projects to increase energy efficiency, as well as the main motivation for accepting these measures by consumers are exactly the energy savings that result in financial gain. The decision to implement an energy efficiency measure should be made on the basis of an estimate of its cost-effectiveness.

2.1 Parameters of the cost-effectiveness of the projects

By reducing energy consumption and/or using renewable energy, significant financial savings are achieved which, in an acceptable period, should exceed the investment in the projects, as well as the costs for operation and maintenance of the systems, and bring adequate profits. In practice Most often there is a problem of choice, that is, the best project of several possible energy efficiency projects. The basic goals of evaluating the feasibility and justifiability of energy efficiency projects are: to ascertain whether the project is financially viable and economically justified; To allow comparison of the cost-effectiveness of various projects; And to enable a feasibility study for funding.

Energy efficiency projects require investment in the first year, while the effects are realized over the years in the future. To enable comparison of the investments and the results of the project, it is necessary to calculate the value of money in time. The calculation is carried out in two directions depending on whether we want to know the value of the money we now have after a certain number of years, or, we want to know the current value of the money that we will realize in the future years. The determination of the present value Of future cash inflows from realized savings, allows comparison of various measures and projects for energy efficiency. Determining the future value of money (Future value FV) is done by integrating racist money. Interest is an increase in the value of the available money for a yield that can be realized in each future accounting year.

The determination of the present value of the money, which will be realized in the coming years, is performed by discounting, ie downgrading of the present time. When calculating the present value of money, a key point is the determination of the discount rate, which should reflect the missing possible income. The amount of the selected discount rate depends on the structure of the funding sources of the project and the amount of project risk. It can be determined on the basis of the interest rates of commercial banks and on the basis of the average prices of the source for financing the project. The determination of the discount rate based on the bank interest rate is performed when the project is fully financed with a bank loan.

If it is desired to calculate the real value of the discount rate, then the rate of inflation must be excluded from the established nominal discount rate. The determination of the discount rate based on the average cost of the

funding sources for the project is carried out when the project is funded by various sources of funds, such as budget funds, private capital and bank loans.

One of the simplest ways to evaluate projects is a simple payback period PB. A simple payback period is the time it takes to generate total investment investments from future project revenues. The main disadvantage of this indicator of the return on investment returns is the neglect of the time value of money and income, which is realized over the entire duration of the project. The introduction of time value of money, by way of discounting future revenues, can calculate a dynamic return on investment investment. A dynamic return on an investment investment is a time that is needed to bring the project's future revenues down to today's value, the total investment investments are charged. For his calculation it is necessary to perform discounting of projected future revenues of the project.

Investment projects start with investment in the "zero year of the project." After that year, in the period of project exploitation, the revenues and costs of using the project arise. If the current value of the project revenues subtracts the present value of all investment and operational Costs, we get net present value NPV of the project. The present value of the project is the newly created value, which remains after covering the total project costs.

The project is cost-effective when the net present value is greater than zero, that is, when the savings are reduced during the economic life of the project larger than the total reduced investments. Otherwise there is no point in investing in such a project. The present value should be applied in the valuation Of the project's cost-effectiveness, because it takes into account the entire lifespan of the project. This indicator does not provide an opportunity to compare projects with a different amount of investment, which is exceeded by using a net current coefficient Value.Net present value ratio (NPVQ) is the ratio of the net present value to the present value of the total investment expense.

The resulting coefficient shows how much money is earned per annum by investing a monetary unit in the project. The project is cost-effective when the net present value is greater than zero. Given that the coefficient shows the amount of the newly created value per unit of invested funds, it can To be used for ranking different measures and projects, which have a different amount of total investments.

Internal rate of return IRR is the discount rate that equals the present value of savings income with the present value of the total project costs. That is the discount rate at which the net present value of the project equals zero.

For this parameter, it is not possible to derive an analytical expression, but an interactive procedure is used for this. The project evaluation based on the internal rate of return is made as follows: IRR of the selected project option must be higher or at least equal to the IRR of the other analyzed project options or possible asset investments; And, the IRR of the project should be greater or at least equal to the discount rate, which reflects the cost of funding for the project (interest on the debt and return of the company). A decision-making criterion for one of the alternative projects is to select those projects that have the highest internal rate of return. The lack of this indicator is that it can favor projects that require lower investment and result in a lower return in absolute terms.

Benefit Cost Ratio (BCR) is the present value of the overall project benefits, divided by the present value of the total cost of the project. If the $BCR > 1$ project is cost-effective. The value of the BCR larger than the unit project is sustainable because the benefits measured at the present value of the inflows are greater than the costs measured with the current value of the outflows. The rule is that they should reject all projects with a gain ratio and cost BCR whose value is smaller than the unit. Based on this coefficient it is possible to perform the ranking of the projects.

2.2 Cost Benefit Analysis

Cost Benefit Analysis (CBA) provides a comprehensive assessment of energy efficiency projects through: defining project objectives, defining the project, feasibility analysis and options, financial analysis, economic analysis and risk analysis.

Defining the objectives of the energy efficiency project is essential for identifying the project where the social economic benefits that can be achieved through the realization of the project are defined. Examples of the goals of the energy efficiency project can be: change in the structure of the used sources Energy, modernization of equipment in order to protect the environment, reduce consumption of imported energy through the use of own and renewable energy sources, increase the production of From renewable sources in order to achieve global European and national goals such as reducing greenhouse gas emissions.

The project must be clearly defined and constitute a separate technical and technological unit. The company needs to prove that the selected

project is the best option among the others analyzed. Within the feasibility and opportunities analysis, possible options should be considered within the framework of the existing infrastructure and possible alternatives for production and consumption of energy during the performance of the activity.

When deciding on projects, consideration should be given to the financial cost-effectiveness of FNPV costs and the NPVQ net present value coefficient. When FNPV is less than zero, it is necessary to see the total social benefits and costs as well as to calculate the economic indicators for cost-effectiveness. There is a choice between multiple options that selects the one that has the highest coefficient NPVQ.

Within the framework of the economic analysis, the feasibility of implementing the project from the aspect of benefit for the whole society, the region, the country is examined. The social benefits of energy efficiency projects are reflected in: cash benefits from sales or energy savings; Reducing global warming and adversely affecting the environment and human health, using renewable energy sources and reducing energy consumption and greenhouse gas emissions; Use of fossil fuels and non-renewable energy sources for other purposes and future needs; Reducing energy consumption; As well as reducing the import of energy. Social costs are perceived in: removing adverse effects on air, water and land; Indirect effects of loss of land or disturbance of the natural environment; As well as waste of resources and raw materials that could be used in another way by achieving greater benefits for the social community.

The indicators of economic viability of the project are: economic net present value ENPV, economic internal rate of return ERR, and coefficient of benefits and costs BCR. If the ENPV is less than zero, the project should not be implemented. When choosing between multiple projects, the one that has the highest value of the ENPV should be selected. The decision on the ERR framework implies that the project will be eligible if the ERR is greater than Social opportunity costs of capital, however, the ERR has significant constraints and is a bad substitute for NPV as a decision-making indicator. A simple comparison of the ERR value can lead to a wrong conclusion, especially when it comes to projects of different sizes In terms of total investments. In many cases, the ERR may have more than one value. Deciding on a BCR, it comes down to the following: if the value of BCR is greater than the unit project is sustainable, if the BCR value is less than the unit the project should be rejected.

In general, any project whose ERR is lower than the discount rate or the value of the ENPV is negative should be reconsidered or rejected. Any project whose value BCR is smaller than the unit needs to be carefully re-examined or rejected. In some exceptional cases, the negative value of the ENPV can be accepted if there are significant benefits that are not expressed in cash, but then it must be shown in detail.

Risk analysis should enable determining to what extent the realization of the *cost*-effectiveness (NPV and IRR) indicators depends on the changes in the starting assumptions during the implementation of the project.

Key assumptions for risk analysis are: investment costs and duration of the investment; Change in demand for energy; Dynamics of support policy. The rules for decision making in risk analysis in cases where there is significant uncertainty when making a decision to accept the project, should take into account the following: if the smallest possible NPV is greater than zero, the project should be accepted; If the largest possible NPV is less than zero project should be rejected. If the maximum NPV is greater than zero, and the minimum is less than zero, NPV should be calculated. If NPV is greater than zero, the project should be accepted.

Conclusion

It can be said that every kWh of energy that we will not spend in vain means a certain amount of greenhouse gases that are not released into the atmosphere. The efficient use of energy raises the quality of the environment and at the same time contributes to the global fight to prevent climate change.

The economically efficient use of energy is the use that results, combined with other inputs, the smallest production costs and the optimal allocation of resources assuming cost-effectiveness of all inputs.

The basic objectives for assessing the feasibility and justification of the measures and projects for energy efficiency are in the direction of determining their financial viability and economic justification, enabling the comparison of the cost-effectiveness of various measures and projects, and assessing the acceptability for financing the measures and projects.

The choice of a project or energy efficiency measure is recommended depending on the values of: the net present net present value -EnPV, the net present value coefficient-NPVQ, the financial ROI of the FNPV project, the

economic internal rate of return-ERR, the coefficient Of Benefits and Costs-BCR, and in some exceptional cases where the value of the indicators is negative and there are significant benefits that are not presented in a monetary way, they are advised to be detailed and described in detail.

References

1. Violeta Tasheva: Public sector economy with special emphasis on the energy system and development of the transmission network of the Republic of Macedonia, Doctoral dissertation, 2016, EI-Skopje.
2. ISO (International Organization for Standardization): ISO 50001: 2011
3. STATE STATISTICAL OFFICE OF THE REPUBLIC OF MACEDONIA: Statistical Review 6.4.12.01/707,
4. EUROPEAN COMMISSION Directorate General Regional Policy: Guide to Cost-Benefit Analysis of Investment Projects Economic appraisal tool for Cohesion Policy 2014-2020
5. COMISSION STAFF WORKING DOCUMENT: Good Practice in Energy Efficiency Accompanying the document Proposal for a Directive of the European Parliament and of the Council amending the Directive 2012/27 / EU on Energy Efficiency {COM (2016) 761 final}
6. International Energy Agency: Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings, Paris, 2008.
7. <http://www.worldbank.org/>
8. <http://www.stat.gov.mk/>

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THE IMPORTANCE OF MARKETING RESEARCH FOR THE COMPETITIVENESS OF SMALL ENTERPRISES IN REPUBLIC OF MACEDONIA

Abstract

Meeting the global needs of consumers by applying a marketing concept is one of the key factors for competitive success and is a basis for positioning of enterprises, regardless of the nature of their activity or size.

All enterprises need a marketing concept, regardless of their size and business activity. Even though small enterprises, in terms of their size and flexibility have many specifics and differences, marketing is a universal concept in terms of fulfilling numerous factors of competitiveness.

To achieve sustainable growth and competitive position, small enterprises should be oriented towards exploring the factors of the immediate and more wider environment and should identify approaches and strategies for market positioning according to the needs and demands of consumers.

In this paper, a theoretical and empirical review has been made on the application of marketing research in small enterprises in Republic of Macedonia, in relation to several factors of their competitiveness. The analysis of the current situation of the use of marketing research, in terms of improving competitiveness, shows that small enterprises in the country do not sufficiently apply the marketing concept and marketing research for improving their competitiveness and their successful positioning in the global market.

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Key words: marketing research, competitiveness, SMS's,
Republic of Macedonia

Jel classification: M3

Introduction

In order to ensure survival in a dynamic environment, small enterprises need to have certain competencies and knowledge about the market. To achieve sustainable growth and a competitive position, they need to constantly be oriented towards exploring the factors of the immediate and more wider environment and should identify approaches and strategies for market positioning according to the needs and demands of consumers.

Meeting the global needs of consumers by applying a marketing concept is a crucial factor for competitive success and a basis for positioning of enterprises, regardless of the nature of their activity or their size. The challenges in this sense are greater for small enterprises, if one takes into consideration the numerous factors in the immediate and more wider environment.

In the broader literature in the field of marketing, many aspects have been identified for its application in small enterprises in relation to their competitiveness. Basically, it is about mutual conditionality and determination of marketing and entrepreneurship in the direction of increasing competitiveness. Basically, such determination is based on the development of the marketing concept as a new paradigm in relation to the classical marketing mix, whereby consumer needs are the basic marketing focus. According to this concept, marketing is viewed from the perspective of the individual who is “networked” in a system of value-creating, which at the same time is the crucial link between competitiveness and marketing research. The basis of this connectivity is the practice of a marketing concept that is based on information from the marketing research of the wider and immediate environment, research of consumers and their needs and opportunities for greater competitiveness by creating a new value for consumers (the market). Within the framework of the empirical research, an analysis has been made of the data received from the research on small enterprises on the territory of Republic of Macedonia in terms of several factors of competitiveness.

1. MARKETING RESEARCH IN SMALL ENTERPRISES – THEORETICAL REVIEW

Given that market research is defined as systematic defining, gathering, interpreting and summarizing information that help the business in solving specific problems on the market, or making use of favorable market situations, it is necessary to define how much they are actually used in the enterprises themselves. Putting consumers of products and services in the center of an enterprise is a starting assumption for business success of marketing oriented enterprises. Satisfying the needs, wants and preferences of consumers in solving their problems and demands with adequate products and services, is a starting point for initiating all business decisions in an enterprise.

Entrepreneurs as founders and owners of small enterprises usually have limited resources, because of which only a small number of them manage to survive and develop over a longer period of time. At the beginning, only those who base their strategy on the marketing concept manage to succeed: to satisfy the needs of consumers and to achieve competitive success on the market. Without applying marketing in business operations, it is hardly possible for any enterprise to achieve market success.

Research in some countries shows that in practice, small enterprises do not apply marketing strategies that essentially are the same with the theoretical views and concepts for their application.

Research carried out for determining the application of marketing activities as part of the behavior (managerial and operational aspects of market orientation), in the category of small businesses in the Split-Dalmatia region, shows that small businesses have inadequate capacity (both quantitatively and qualitatively) for a more systematic autonomous implementation of all marketing activities. This unfavorable situation points to the notion that there is successful merging of small entrepreneurs, namely, it has been concluded that most of the small businesses operate through personal and informal networks. Furthermore, the results of this research show that the marketing activities in many small business entities are implemented without previously being planned and managed. Mainly, they are not implemented systematically, much less through a formal organization of the marketing function, or through cooperation with external experts. These findings are confirmed also by results of other surveys that refer to the absence of a methodological approach

for marketing research and marketing planning in small businesses, which is usually replaced with a strong emphasis on customer care, reliance on intuition and environmental awareness.¹

Another study indicates the type of marketing activities that are implemented by small enterprises in Albania and the reasons that condition this. Research shows there is limited knowledge about marketing among the interviewed entrepreneurs, with one aspect that refers to the focus of consumers and their needs. Also, it has been confirmed that small enterprises do not have marketing resources and use traditional marketing, while the gathering of information from the market is carried out through a network of personal contacts, instead of with systematic market research.²

According to the third research, the changes taking place in the marketing practice of companies in the Czech Republic in the period 1999-2003 show that despite the progress, in most of the small enterprises in 2003 there is a lack of independence in the operation of the marketing sectors and that clearly defined marketing strategies are not implemented. In another study, a comparative analysis is made in regards to the practice of building linkages in small companies in Poland and the Czech Republic. Small enterprises in the Czech Republic have better developed marketing skills and are more oriented towards long-term benefits in relation to the Polish small enterprises.

In Republic of Slovenia, more research has been conducted on how small enterprises understand and apply marketing in their working. It has been concluded that the application of marketing in these enterprises is informal, unstructured, pragmatic, reactive, limited in its size and intensity.³

Similar characteristics have been noted in small enterprises from other countries in the region, especially in terms of the lack of independence of the marketing sectors, the role of the owner/manager, manner of acquiring information through close connections with clients and lack of marketing planning.

¹ Draganic D., Marketing activities of small businesses in Croatia: the case of Splitsko-Dalmatinska country, *Management*, Vol. 14, 2009, 1, pp. 39-58, <https://moj.efst.hr/management/Vol14No1-2009/3-Dragnic.pdf>, 21.9.2016

² Gorica K., Buhaljoti A., Entrepreneurial marketing : Evidence from SMEs in Albania, *American Journal of Marketing Research* Vol. 2, No. 2, 2016, pp. 46-52, <http://www.aiscience.org/journal/ajmr>, 21.9.2016

³ Bodlaj M., Rojšek I., Marketing in small firms: the case of Slovenia, *Economic and business review*, Vol. 16, No. 2, 2014, p. 101–119

2. MARKETING RESEARCH IN SMALL ENTERPRISES IN REPUBLIC OF MACEDONIA

As globalization proceeds, transition and developing countries and their enterprises face major challenges in strengthening their capacities to increase their competitiveness. In market economies, the enterprise sector is predominantly private and spans through the whole spectrum of economic activity in agriculture, manufacturing and services, including trade, and increasingly also infrastructure and social services. Within the private sector, there are different types of market players: the self-employed, micro, small, medium and large enterprises and multinational companies.

Private small and medium sized enterprises (SMEs) typically account for more than 95% of all firms, constitute a major source of employment and generate significant income from participation on domestic and export markets. Improved SME competitiveness could obviously contribute to economic and social development and poverty reduction. In developing and transition economies in a globalizing world, SMEs need to: i) build local SMEs' capacities to trade and take up expanding regional and international trade opportunities, and ii) strengthen SMEs' linkages with foreign investors and thus enhance FDI benefits to the local economy.⁴

Globalization and the rise of emerging market economies have increased the competition faced by firms in the Western Balkans. At the same time, the relatively small domestic markets of the Western Balkans mean that the wider opportunities offered by internationalization may be crucial for enterprises' further advancement. For SMEs, especially, accessing international markets can open up new possibilities for growth. They can achieve economies of scale in a way that might not be possible by operating in the domestic market only. Increased exposure to foreign firms further encourages innovation, quality improvements and enhanced productivity. Consequently, competition can also foster the long-term sustainability of firms.⁵

⁴ 2nd OECD conference of Ministers responsible for small and medium sized enterprises (SMEs) promoting entrepreneurship and innovative SMEs in a global economy: towards a more responsible and inclusive globalization, Istanbul, Turkey 3-5 June 2004, Promoting SMEs for development organization for development, OECD, 2004, p. 46

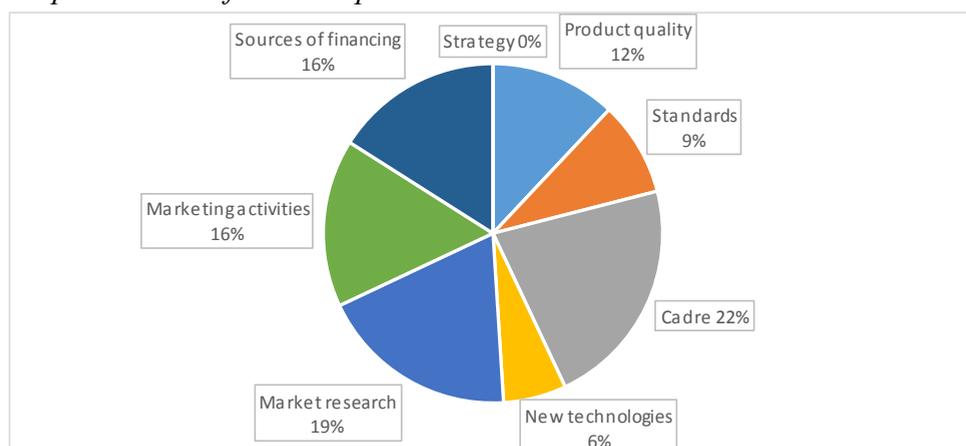
⁵ SME Policy Index Western Balkans and Turkey 2016, Assessing the Implementation of the Small Business Act for Europe, p.197

With the purpose of determining the situation in regards to the application of marketing research in small enterprises, from the perspective of their competitiveness, a survey was conducted on small and micro enterprises on the territory of the country. The questionnaire was answered by 32 firms, from 17 cities and all 8 regions in the country. The survey was carried out in the period August-December 2016.⁶

In terms of the business activities of the firms that responded to the questionnaire, most of them, namely 38% operate in the service industry, 25% in trade, 22% in production, 9% operates in the field of information technology and 6% in construction.

In regards to the factors that small enterprises lack for market competitiveness, it has been concluded that there is a lack of staff for market research. They equally lack funding sources and marketing activities, as factors that would contribute to greater competitiveness of enterprises. They also have insufficient quality of products along with a lack of standards and of new technologies (see Chart 1).

Chart 1: Which of the given factors are lacking in terms of the competitiveness of the enterprise?

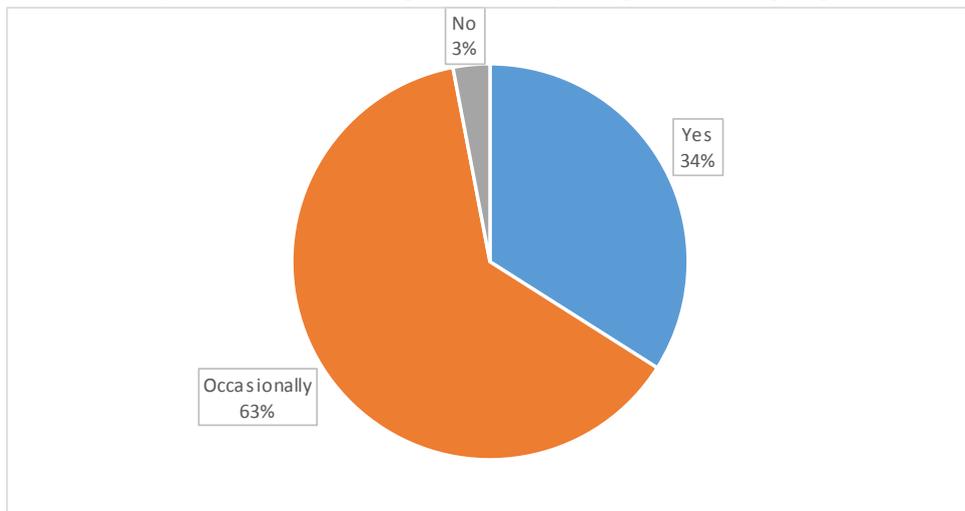


Source: Analysis of questionnaire results

Regarding the introduction of new products on the market, only one-third of small enterprises regularly introduce new products in their production program, whereas 3% do not introduce such products. Almost two-thirds of firms, however, introduce new products occasionally (see Chart 2).

⁶ “Application of marketing concept for small enterprises in Republic of Macedonia” (results of conducted research), Institute of Economics, 2015-16

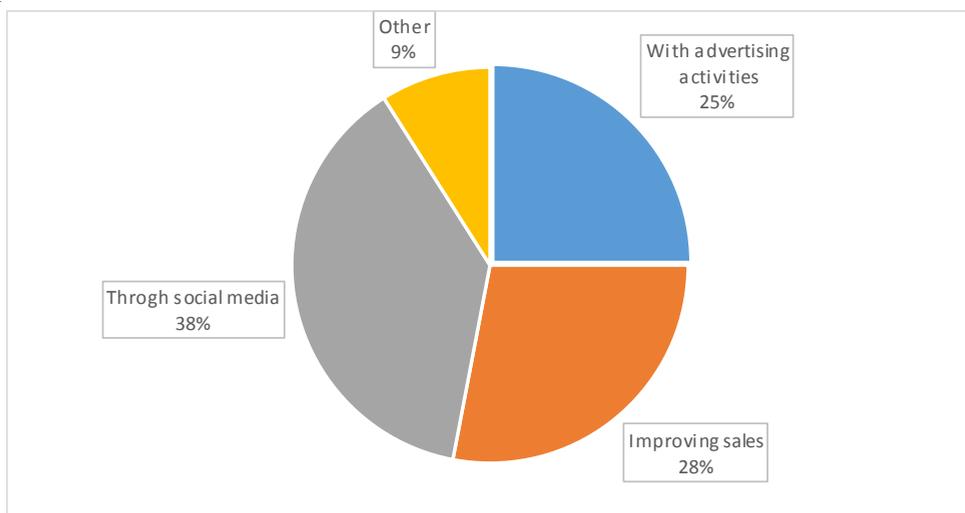
Chart 2: Do you introduce new products in your production program?



Source: Analysis of questionnaire results

Small enterprises usually promote their new products through the social media, followed by promotion of sales and advertizing activities. Some enterprises use other methods, more specifically, as they have stated, “direct communication”, “personal meetings” and “personal communication” (see Chart 3).

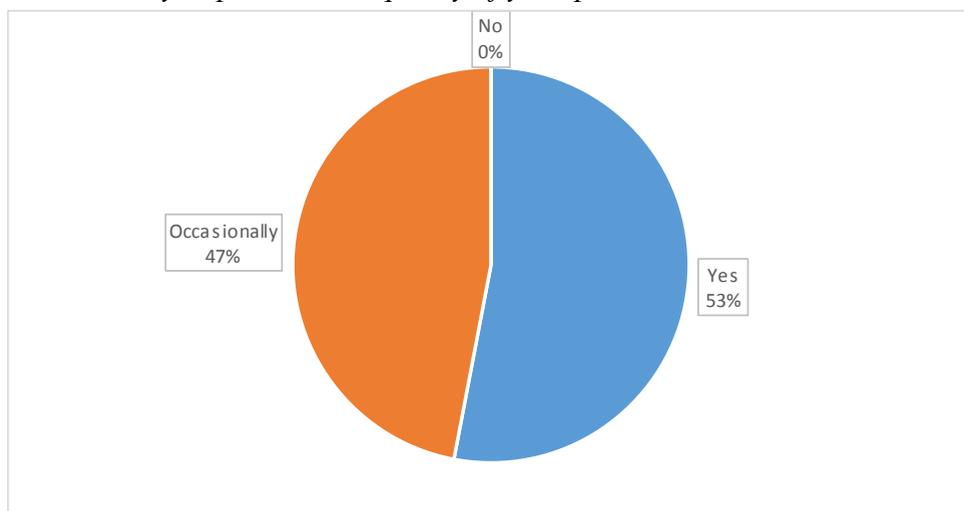
Chart 3: If you are introducing new products and services, how do you promote them?



Source: Analysis of questionnaire results

All surveyed enterprises stated that they do promote the quality of their products and services. A little over half of them (53%) say that they do this continuously, while 47% stated that they do this occasionally (see Chart 4).

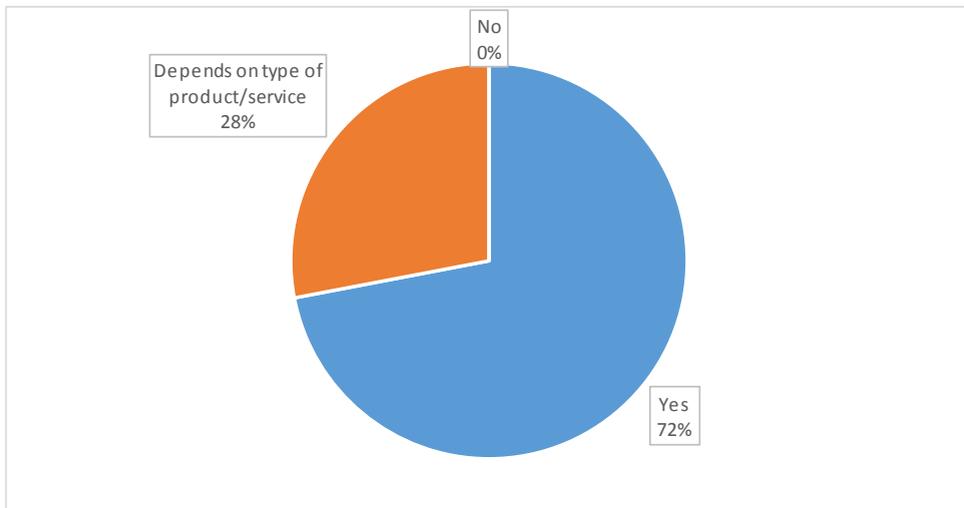
Chart 4: Do you promote the quality of your products/services?



Source: Analysis of questionnaire results

One of the most important factors of competitiveness is the promotion of quality and standardization for greater competitiveness on the market. In terms of this factor, almost three-fourths of the enterprises surveyed (72%) consider that promotion of quality and standardization are significant for greater competitiveness of their products and services on the market. A smaller part (28%), think that it depends on the type of product and service, while there are no enterprises that do not recognise this significance (see chart 5).

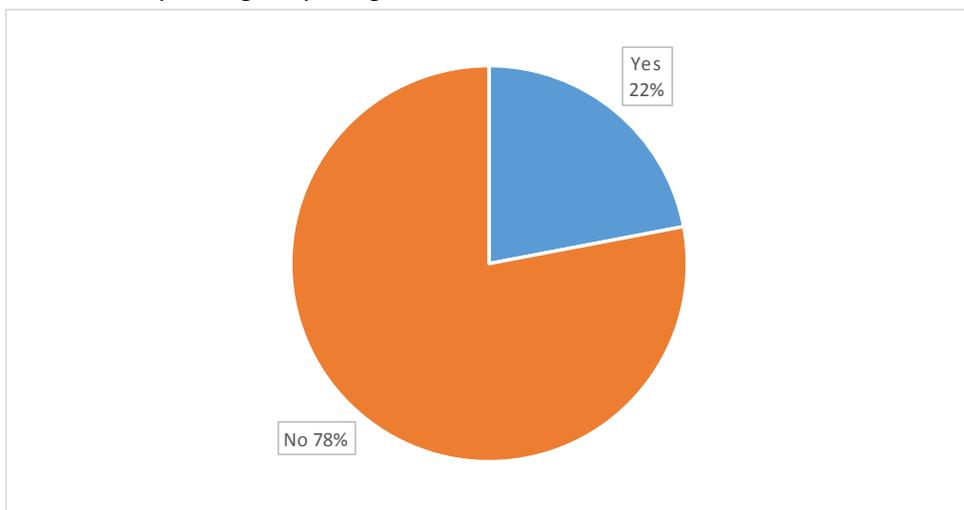
Chart 5: Do you consider that promotion of quality and standardzation are important for greater competativeness of your products/services on the market?



Source: Analysis of questionnaire results

Regarding the export of products and services, only 22% of enterprises export thier products and services, while a majority of them (78%) offer their products and services on the domestic market only (see Chart 6).

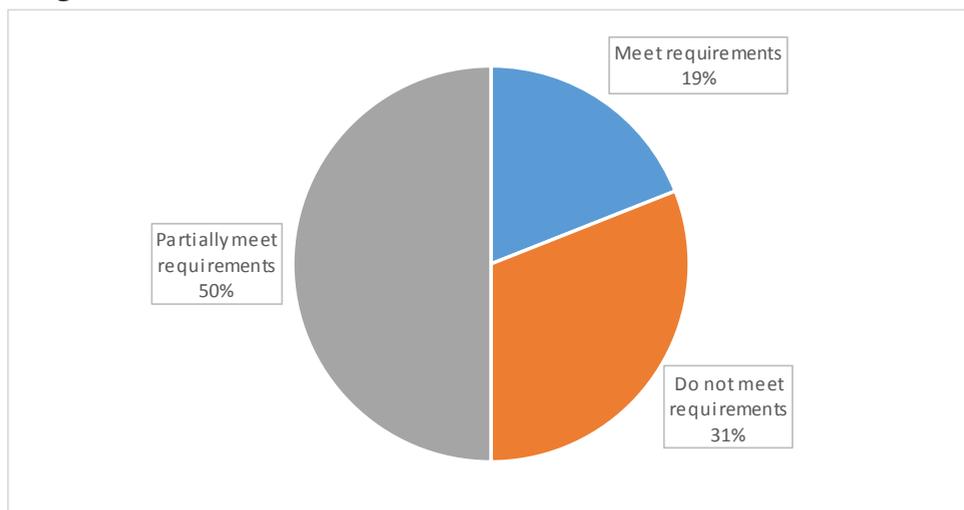
Chart 6: Do you export your products and services?



Source: Analysis of questionnaire results

A third of the enterprises consider that they do not meet the requirements of the foreign market, and up to a half of the firms think that they meet the requirements only partially, while 19% of the firms consider that they do meet the requirements (see Chart 7).

Chart 7: *If you export, assess the competitiveness of your enterprise on the foreign market:*



Source: Analysis of questionnaire results

The results of the research show that in terms of promoting the factors of competitiveness in small enterprises – marketing research is in the second place. Small enterprises introduce new products on the market, but use only some of the available media for their promotion. Around three-fourths of the enterprises surveyed consider that improving quality and standardization are important for greater competitiveness on the market. In regards to improvement of quality of the existing products and services, most of the enterprises believe that they are necessary and important for increasing competitiveness. Nevertheless, only a small number of export oriented enterprises only partially meet the requirements of foreign markets, which just indicates the low competitiveness of the export oriented small enterprises from Republic of Macedonia.

CONCLUSION

In current conditions, small enterprises are treated as key initiators of innovation, drivers of employment and social integration. Although competitiveness is a firm level phenomenon, macroeconomic and microeconomic environments influence market signals. However, competitive advantage is measured in relation to the rivals in the markets that firms compete in. Integration into regional and global trade and investment networks will require much effort, although it is not an impossible proposition.

Small enterprises are especially sensitive to turbulent changes in the business environment. From the perspective of the marketing concept and developing entrepreneurship, both at the global and regional level, these enterprises are facing more or less exposure to market oscillations under the influence of various factors. Changes entail the need for treating marketing as a dynamic rather than a static category, with the ultimate aim of convincing consumers to orient themselves towards an a supply on the market that refers to more competitive products/services.

Because of the strong and unequal competition of enterprises with different sizes and power, it is necessary to continuously keep innovating and introducing new products and services in the production programs of small enterprises. The risks resulting from changes in the market, both in terms of the supply and the demand, can be minimized only if these enterprises create and apply innovative and creative strategies based on information and knowledge about the market.

The research that has been performed in small enterprises in the country refers to the current situation in regards to the application of marketing in Republic of Macedonia. Based on the elaboration of theoretical knowledge and practical experience on the application of the marketing concept in small enterprises, as well as from the analysis of the results of the conducted survey research in Republic of Macedonia, conclusions have been made in regards to the research topic. As to the need for applying the marketing concept, there is no dilemma that it is necessary and an essential part of the development policy of small enterprises. The dilemma that arises concerns the manner of applying the marketing concept according to the specifics and size of the enterprises in terms of the available resources. Experiences in this field

and the results of the conducted research in Republic of Macedonia show a latent attitude to the issue of applying marketing in small enterprises, with the absence of a consistent, essential and methodological approach in its implementation. The improvement of the current situation should be sought in the direction of acquiring knowledge and experience for the application of marketing research in improving the competitiveness of small enterprises and their successful positioning on the market.

References:

1. Bodlaj M., Rojšek I., Marketing in small firms: the case of Slovenia, *Economic and business review*, Vol. 16, No. 2, 2014
2. Gorica K., Buhaljoti A., Entrepreneurial marketing : Evidence from SMEs in Albania, *American Journal of Marketing Research* Vol. 2, No. 2, 2016, pp. 46-52, <http://www.aiscience.org/journal/ajmr> , 21.9.2016
3. Draganic D., Marketing activities of small businesses in Croatia: the case of Splitsko-Dalmatinska country, *Management*, Vol. 14, 2009, 1, pp. 39-58, <https://moj.efst.hr/management/Vol14No1-2009/3-Dragnic.pdf> , 21.9.2016
4. “Application of marketing concept for small enterprises in Republic of Macedonia” (results of conducted research), Economic Institute, 2015-16
5. 2nd OECD conference of Ministers responsible for small and medium sized enterprises (SMEs) promoting entrepreneurship and innovative SMEs in a global economy: towards a more responsible and inclusive globalization, Istanbul, Turkey 3-5 June 2004, Promoting SMEs for development organization for development, OECD, 2004
6. SME Policy Index Western Balkans and Turkey 2016, Assessing the Implementation of the Small Business Act for Europe, 2016

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**POSSIBILITIES FOR IMPROVEMENT OF PROFITABILITY
OF ENTERPRISES IN TOURISM INDUSTRY
IN THE REPUBLIC OF MACEDONIA**

Abstract

This paper treats issues related to profitability of enterprises in tourism industry in the Republic of Macedonia. The aim is to calculate financial ratios for assessment of profitability level in tourism industry and to analyze them.

Profitability is very important in determining the success or failure of a business for enterprises at whole, as well as for the enterprises in tourism industry. Higher values of profitability ratios indicates that operation of the enterprise is more efficient. It is obvious that profitability depends on many factors as: size of the enterprise, experience in the business, it's debts, leverage level, working capital utilization, inventory etc. The trend of these factors can serve as a guideline for planning of the increased workload or additional capital investment.

Financial analyze from theoretical and practical aspect identifies many indicators for measurement of enterprise profitability. In that context, for the aim of this paper key ratios of profitability are estimated for enterprises in Macedonian tourism industry.

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Key words: profitability, tourism industry, financial statements, enterprises, Republic of Macedonia.

JEL Classification: M21; G32; Z3

Introduction

Number of indicators used in financial analysis of enterprises are different depending on enterprises orientation and also it depends on the analyst purposes, the methodology applied, the type of industry that enterprise belongs to and etc. For that purpose, data from intra-statements and official financial statements of enterprises are used.

That means that in enterprises tourism industry, also record all activities and transactions in financial statements, which are then used in decision-making of different parts as: managers, owners, government, banks and other financial institutions, business partners, competitors and other stakeholders. Thus the profitability indicators are also used for the same purpose and it seems to be a significant determinant of an enterprise's credit risk. This is very important question in periods of lack of own capital and funds for doing business, when enterprises are forced to borrow from external financial sources.

However, there are evident shortcomings in making business decisions in tourism industry based solely on the financial analysis. Major weaknesses are related to: the use of only historical data, overlooked market value of assets in the balance sheet, high level of use of figurative accounting, neglect of important economic information on micro and macro level and the like. So, different aspect should be taken into account, weather we analyze all financial indicators, or we are focused on profitability level, as an important one

1. IMPORTANCE OF PROFITABILITY FOR ENTERPRISES IN TOURISM INDUSTRY

Success of tourism enterprises is a result of a complex investigation of external environment for market needs and opportunities from one side and from the creation and development of certain advantages of the enterprise from other side. Consequently, success is connected to specific resources that are unique for the enterprise and difficult to be imitated by other enterprises.

Such measurable characteristics include financial resources (own funds, borrowed funds), natural resources (size of the enterprise, capitalization) and intangible resources (human capital and innovation, which are approximated by the educational level of the personnel, and commercial resources such as trademarks, reputation etc. which are approximated by advertising expenses and export activities). (Agiomirgianakis et al. 2013)

Profit is especially important because it is necessary for the survival of a business. Low profitability contributes to under-capitalization problems because it leads to fewer dollars as retained earnings and therefore to a reliance on external capital. The ultimate goal of every investment is not solely the revenue grow or cost savings, but the generation of healthy returns, and that is what we call profitability. Profit margin is one of the main financial benchmark indicators between companies. Profitability is also usually the ultimate goal of any company (Žager, Mamić Sačer, & Dečman, 2012).

2. DEFINING AND MEASURING PROFITABILITY

One of the most difficult attributes of a firm to conceptualize and measure is profitability (Ross et al. 2007) . In a general sense, accounting profits are the difference between revenues and costs. However, the problem with accounting-based measures of profitability is that they ignore risk. In the economic sense, a firm is profitable only if its profitability is greater than investors can achieve independently in the capital market. In their text,) suggest some methods to measure profitability including profit margin or return on sales, return on assets, and return on equity.

- Profit margins are computed by dividing profits by total operating revenue and thus express profits as a percentage of total operating revenue.
- Return on assets is the ratio of income to average total assets, both before tax and after tax, and measures managerial performance.
- Return on equity is defined as net income divided by average stockholders' equity, and shows profit available for stockholders.

Business profit ratio shows the gross margin, ie how much of operating profit is generated by 100 units operating income. Net profit rate is a result remaining after covering all expenses of the enterprise, income tax, etc.,

or it shows the share of net profit in operating revenues. The meaning of this indicator comes to the fore if the results are compared with competing businesses in the same industry and is commonly used in practice.

ROA shows the profitability of total assets, ie the degree of growth of total operating assets involved in the enterprise. In fact, this indicator refers to the net profit and if it realizes unit engaged assets. Through this indicator data horizontal or trend analysis can be carried, or data might be compared with overall results of the tourism industry, group of enterprises or separate competitive enterprise.

Operating income ratio can be divided, if it is already known that than ROA can be increased by increasing the operating income through higher sale prices, declining of number of employees etc, as well as by faster turnover of total assets over a shorter turnover of inventories and faster collection of receivables. The point is to put attention on management of turnover of total assets in tourism enterprises.

Closely related to ROA is ROE and it is showing the level of return on equity while taking into account the financial structure that shows the growth of equity at the end of the period compared to the beginning. The results of this indicator can be improved by better level of net income and faster turnover of capital.

Table 1: Key profitability ratios

Ratio	Measurement or computation
<i>Business profit ratio</i>	<i>Operating income/total expences</i>
<i>Net profit rate</i>	<i>(Net income/sales) x (Sales/assets) x (Assets/equity)</i>
<i>ROA (Return on assets)</i>	<i>Net profit after tax/ total assets</i>
<i>ROE (Return on equity)</i>	<i>(Net profit margin) x (Total asset turnover) x (Leverage)</i>

It has to be considered that of the ratios summarized in table 1, four ratios: business profit rate and net profit rate, return on assets and return on equity are the most frequently used as the measurement of profitability of enterprises in whole, as in tourism industry, also.

3. FACTORS INFLUENCING PROFITABILITY OF ENTERPRISES IN TOURISM INDUSTRY

The main factors influencing profitability include revenue, costs and capital (Westerfield and Jaffe 1999) and (Cohen 1989). Recent literature analyzes the profitability of companies from various countries and economy sectors through indicators like net operating profitability (NOP) (Raheman et al., 2010), (Dong and Su., 2010), return on total assets (ROTA) (Deloof, 2003), (Padachi, 2006), return on invested capital (ROIC), return on assets (ROA) (Narware, 2010). In these cases, the elements considered by profitability analysis as independent variables are financial indicators that express the working capital.

Profitability at microeconomic level has been studied depending also on indicators such as current ratio, liquid ratio, receivables turnover ratio and working capital to total asset (Singh and Pandey, 2008). Other studies consider performance assessment expressed by earnings before interests and taxes (EBIT) and the associated risk resulted from the influence of using a certain financing structure (Akintoye, 2008) or expressing it through economic value added (EVA), return on equity (ROE), operating profit margin (OPM), earnings per share etc (Ryan, 2008).

According to consulted literature generally, many factors influence tourism enterprise profitability. Regarding the direction of the impact of specific determinants of profitability, theories are ambiguous about the how the size of firms actually affects profitability. According to many empirical studies at the international level, the average cost of small-sized firms exceeds the corresponding cost of large sized firms. Large firms may take advantage of economies of scale in their activities and this may well result in lower profitability of smaller firms (Barbosa and Louri, 2005). On the other hand, according to the Shumpeterian theory of creative destruction, small firms (especially in new technology fields) are usually the new entrants to the markets, gradually growing and acquiring market share and profits from the incumbent larger firms (Papadogonas, 2007). Therefore, although most researchers coincide that firm size impacts on firms performance, no clear consensus exists about the direction of this impact; however, based on the specific characteristics of the tourism industry where economies of scale appear to be present, it can be expected a positive impact.

However, from the viewpoint of financial management, there is very important role in financial analyze of so called DuPont analysis. DuPont analysis is considered a standard model to analyze the factors affecting on enterprise profitability as well as the profitability of tourism industry enterprises. According to Eisemann (1997), a virtue of DuPont analysis is its simplicity. Three fundamental ratios derive one summary ratio: return on equity (ROE). Their relationships are as follows:

$$\begin{aligned} \text{Return on equity} &= (\text{Net profit margin}) \times (\text{Total asset turnover}) \times (\text{Leverage}) \\ \text{Net income/equity} &= (\text{Net income/sales}) \times (\text{Sales/assets}) \times (\text{Assets/equity}) \end{aligned}$$

The ratios that determine ROE reflect three major performance dimensions of interest to all loan analysts: management of income statement, or how much profit a company can generate per 1 unit sales; and two aspects of management of balance sheet, that is how well assets can generate sales and the amount of solvency risk. The ratios also indicate that there are several paths that a business can use to gain a return for its owners: margin, volume, and leverage. While DuPont analysis technically only includes the three above mentioned ratios, the scope might be extended to incorporate most major financial ratios. It helps to think of the ratios as analogous to parts of a tree. The trunk is ROE and there are three major branches: profit margin, total asset turnover, and assets to equity.

From the equation of ROE, it appears that as leverage increases, ROE will increase too. The problem is that another effect of an increase in leverage is larger interest expense, which, causes a decrease in the profit margin and ROE. Thus leverage spreads its effects over two ratios, making it hard to disentangle the impact of leverage and operations. Moreover, profit margin is not really an accurate measure of operations, since it combines operations with financial leverage. To overcome this problem, the number of ratios is broken-down into smaller groups while permitting a more complete separation of operations and financial leverage. That is shown in the following equation:

$$\begin{aligned} \text{Net income/equity} &= (\text{operating income/sales}) \times (\text{EBT/operating income}) \times \\ &(\text{Net income/EBT}) \times (\text{sales/assets}) \times (\text{assets/equity}) \end{aligned}$$

This equation provides approach into profit margin and leverage. The first of the three new ratios, operating margin, relates operating income to sales. Because operating income is before deduction for interest, this ratio calculate the underlying profitability of the enterprise and, except for the impact of leasing, is independent of how the firm is financed. The second ratio earnings before taxes divided by operating income. This ratio shows the income statement effect of financial leverage. As financial leverage and interest expense increase, this ratio decreases. To see this, consider a situation where there is no interest expenses or non-operating income. Earnings before taxes and operating income would be identical and the value of the ratio would be one. The last new ratio is net income divided by earnings before taxes. This measures the effect of taxes and is actually equivalent to one minus the effective tax rate.

4. EMPIRICAL RESULTS FOR PROFITABILITY RATIOS OF ENTERPRISES IN TOURISM INDUSTRY IN THE REPUBLIC OF MACEDONIA

Generally, profitability as a principle for achieving maximum profit with less used assets, can be shown through analyzing the following indicators: indicator of business profit and net profit rate- as partial indicators, as well as through ROA (return on assets) and ROE (return of equity) indicators- as a synthetic one. Special system of analyzing the profitability of enterprises is through the Du Pont analysis system, where by disaggregating ROA and ROE on separate components, management is trying to perceive appropriate strategies for improving profitability of tourism enterprise.

Despite the theoretical approach for determining the profitability level of enterprises in tourism industry, for the purpose of this paper quantitative research is conducted, too. Data that are further analyzed in the paper are derived through research conducted by questionnaire in period 2014/ 2015. The questionnaire was sent to 32 enterprises in tourism industry in the Republic of Macedonia, of which 25 enterprises have provided the answers to the questionnaire .

In Table 2 is shown an overview of the results obtained from the calculation of theoretical displayed indicators of surveyed enterprises for a period of 5 years.

Table 2: Profitability ratios of enterprises in tourism industry in the Republic of Macedonia

<i>Profitability ratios in tourism industry</i>	2011	2012	2013	2014	2015
<i>Business profit ratio</i>	14,53%	9,17%	16,56%	16,5%	16,58%
<i>Net profit rate</i>	14,31%	9,62%	15,98%	15,95%	15,99%
<i>ROA (Return on assets)</i>	2,16%	3,64%	6,52%	6,5%	6,55%
<i>ROE (Return on equity)</i>	2,16%	3,92%	6,49%	6,47%	6,49%

Source: Calculated ratios based on data in financial statements for appropriate years of surveyed enterprises in tourism industry

According to data in table 2 it can be considered, that observed tourism enterprises don't have significant level of indebtedness for the analyzed period of 5 years. As it can be seen business profit ratio and net profit rate data show that the highest level is generated in period 2013-2015, and the same conclusion for that period can be made for ROA and ROE indicator in tourism industry in the Republic of Macedonia. Final conclusions for the profitability level of enterprises in tourism industry in the Republic of Macedonia can be made if all financial indicators, as liquidity indicators for the same period at first, are taken into account. Otherwise, in spite of good results of profitability indicators it might be not in an optimal frame. This means that the profitability of enterprises is very complicated and problematic issue.

Separately, in almost all above indicators for profitability of tourism industry it is evident improved substantially, over the last three years of the analyzed period. However, positive influence on this data has the process of gradually overcoming the economic crisis world while and on European continent. Consequently, indirect impact of economic crisis on Macedonian economy is lower. Also, the situation is a result of good policy making in recent period and measures that are undertaken toward special affirmation of tourism on international level.

Conclusion

The essence of financial analysis of profitability of enterprises consists of using the results obtained by calculating the indicators of balance sheet items and their comparison with the standard, theoretical and empirical sizes. Conclusions from the analysis process are useful for internal and external, current and potential stakeholders in decision-making process in tourism enterprises.

That approach gives more reliable picture for the enterprise profitability level. That means that it's possible to have more accurate amount of revenue and operating expenses of the enterprise as a whole and in parts, ie monitoring of profitability trends by units, which is very important element for successful doing business in enterprises of tourism industry.

In order successfully to manage businesses and to be profitable in tourism industry, it is essentially important according to the stated criteria periodically to compare performances among competitors in the same industry. In that way, tourism industry enterprises will go on in better direction, through improvement of their offer and better cost - effectiveness.

References:

1. Agiomirgianakis G., Magoutas, A., Sfakianakis, G., (2013). "Determinants of Profitability in the Greek Tourism Sector Revisited: The Impact of the Economic Crisis", *Journal of Tourism and Hospitality Management*, Vol. 1 No. 1, 12-17.
2. Akintoye I.R., (2008). Sensitivity of Performance to Capital Structure *European Journal of Social Sciences*, vol. 7 (1) 3.
3. Cohen, W. A. (1989), *The Entrepreneur and Small Business Financial Problem Solver*, John Wiley & Sons, New York.
4. Barbosa, N., Louri, H.,(2005). "Corporate Performance: Does Ownership Matter? A Comparison of Foreign-and Domestic-Owned Firms in Greece and Portugal", *Review of Industrial Organization*, 27, 73-102.
5. Deloof M., 2003. Does Working Capital Management Affect Profitability of Belgian Firms?, *Journal of Business&Accounting*, vol.30, issue 3-4

6. Dong H.P., Su J., (2010). The relationship between working capital management and profitability, *International Research Journal of Finance and Economics*, issue 49.
7. Eisemann, P. C., (1997) Return on equity and system ratio analysis, *Commercial Lending Review*, Summer, Boston.
8. Narware P.C., (2010). Working Capital Management: The Effect of Market Valuation and Profitability in Malaysia, *International Journal of Business and Management*, vol. 5, issue 11.
9. Padachi K., (2006). Trends in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms, *International Review of Business Research Papers*, vol.2, issue 2, 45 -58.
10. Papadogonas, T., (2007). "The financial performance of large and small firms: evidence from Greece", *International Journal of Financial Services Management*, Vol. 2, No. 1/2, 14-20.
11. Raheman A., Afza T., Qayyum A., Bodla M.A., (2010). Working Capital Management and Corporate Performance of Manufacturing Sector in Pakistan, *International Research Journal of Finance and Economics*, issue 47.
12. Ross, S. A., Westerfield, R. W. and Jaffe, J, *Corporate Finance*, 8 edition, Irwin and McRaw-Hill, Boston, 2007, 150-158.
13. Rayan K, (2008). Financial leverage and firm value, Gordon Institute of Business Science, University of Protoria
14. Singh J. P., Pandey S., (2008). Impact of working Capital Management in the Profitability of Hindalco Industries Limited. *Icfai University Journal of Financial Economics*, vol. 6(4), 62-69.
15. Žager, K., Mamić Sačer, I., & Dečman, N. (2012). Financial ratios as an evaluation instrument of business quality in small and medium-sized enterprises. *International Journal of Management Cases*, 14 (4), 373-385.
16. Voulgaris, Fotini, T. Papadogonas, and G. Agiomirgianakis, (2005) "Job creation and job destruction in Greek manufacturing", *Review of Development Economics*, 9(2), 289-301.
17. Annual Reports of NBRM for appropriate years (2011-2015).
18. Statistical yearbooks of the Republic of Macedonia for the appropriate years (2011-2015).

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DEVELOPMENT OF THE MACEDONIAN STOCK EXCHANGE

Abstract

The operating and the level of development of the stock market estimate through more indicators. Ones of these indicators are the market capitalization/GDP that presents the scope of the market, and market turnover/GDP and market turnover/market capitalization as the indicators for the market liquidity.

In the analysis is covered over the 10 years of the functioning of the Macedonian Stock Exchange (MSE), which further allows to see an negative impact from the global financial crisis on the operating and the development of the MSE.

In the paper, a comparative analysis is made on the Macedonian Stock Exchange with some stock exchanges in the region, confirming the unfavorable trend in the development of the Macedonian Stock Exchange after the global financial crisis.

Key words: liquidity, market capitalization, market turnover, GDP, MSE

JEL classification: G11, G12

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Introduction

The development of the capital market is usually considered through its size and depth. The indicator of the size of the capital market is market capitalization in relation to GDP, and the depth of the capital market, which actually refers to its liquidity, is measured through stock exchange turnover in relation to GDP and stock exchange turnover in relation to market capitalization. Higher numbers of these indicators indicate a higher development of the capital market.

The paper analyzed the operating and development, through the size and liquidity of the Macedonian Stock Exchange (MSE) as a representative of the Macedonian capital market.

The Macedonian Stock Exchange is established in 1995 and is the first organized stock exchange in the history of the country. But in the Macedonian financial system the banking is dominated sector, while other segments are less represented and in the process of development. So, we have situation the most important source of capital in Macedonian economy presents the loan, yet.

MSE is characterized as shallow stock exchange given that it traded with a few types of securities, namely only with shares and government securities. In terms of types of transactions on the Macedonian Stock Exchange, it includes: trading in best, block transaction, public auction or public offer of securities, etc. In terms of market segments on the MSE operates official and unofficial market.

The survey of the market turnover and market capitalization as the relative indicators allow to consider the reasons or the factors that led to the current conditions on the MSE and conditioned positive or negative trend in the stock exchange turnover and market capitalization in certain years in the past period (2005-2016).

1. LIQUIDITY OF THE MACEDONIAN CAPITAL MARKET

Under a liquid or continuous market we mean a market in which investors in securities can convert, i.e. convert securities into cash and vice versa, with minimal costs and without loss in time. In fact, liquidity refers to the speed at which a certain amount of value can be purchased, sold on the market, without significantly changing its price. Thus, if the market

is lucrative, economic agents can more easily convert their money into financial instruments and vice versa, enabling them to preserve or undergo small fluctuations in the amount of money they have invested in the market. Therefore, the greater the liquidity in the capital market, the greater the amount of savings channeled through the stock market. Securing a continuous market is important for investors, as liquidity allows them to hold the invested funds all the time, and withdraw them as soon as they need it. Liquidity is also important for the issuers themselves, because the higher liquidity, the required rate of return, i.e. the price of capital is the lower.

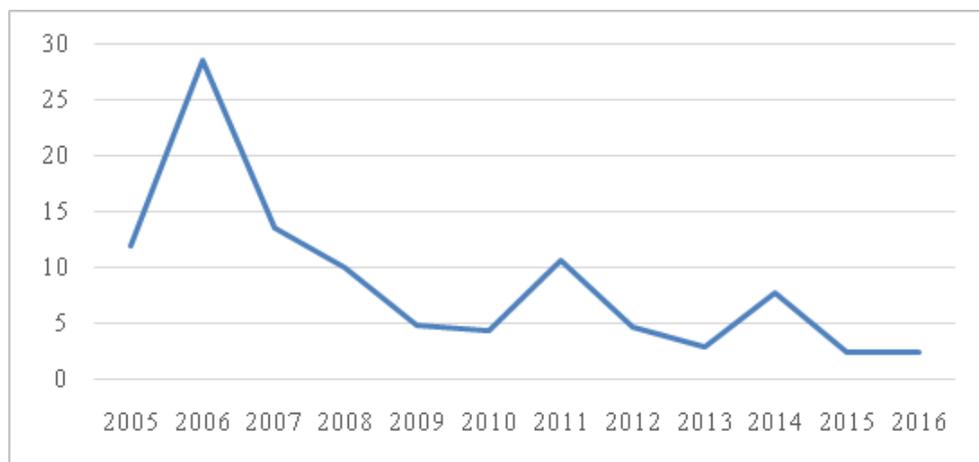
Table 1 presents the degree of liquidity as the ratio between total turnover and market capitalization on the MSE in the period 2005-2016.

Table 1. Liquidity ratio, as a ratio between total turnover and market capitalization (in%) (2005-2016)

Year	Liquidity ratio
2005	11,95
2006	28,48
2007	13,49
2008	9,94
2009	4,91
2010	4,32
2011	10,7
2012	4,65
2013	2,96
2014	7,84
2015	2,47
2016	2,52

Source: Own calculations based on data from <http://www.mse.mk/mk/reports>

Figure 1. Liquidity ratio, as a ratio between total turnover and market capitalization (2005 - 2016)



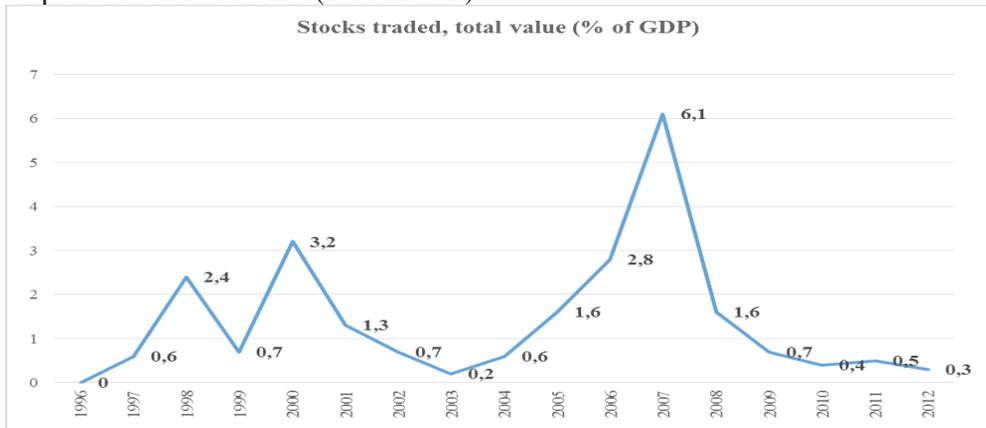
Source: Own illustration

From the Table 1 / Figure 1 we can notice in the whole period of analysis, the liquidity of the securities market measured through this indicator is not only low, but in 2016 it has been reduced several times compared to 2005. However, it should be borne in mind that these indicators would be higher if the effect of the realized block transactions, which have a significant impact on the total trading volume, is exempted. The high prevalence of block transactions on the Macedonian Stock Exchange relative to regular trading transactions is a factor that contributes to the low liquidity of the market, since these transactions are incidental and not an indicator of market liquidity.

The data on the capital market liquidity on the basis of the stock exchange turnover indicator expressed as a percentage of GDP provided through the World Bank Reports are given in Figure 2.¹

¹ The latest available data from the World Bank relate to 2012.

Figure 2. Stock exchange turnover, total amount (% of GDP) in the Republic of Macedonia (1996-2012)



Source: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/MK?display=default> (accessed on 12.8.2017)

Based on these data, it is perceived that the stock exchange turnover on the Macedonian Stock Exchange in the period from 1996 to 2012 shows oscillations in the behavior from rise to decrease. At the beginning of the analyzed period there was a slight increase (in 1997 from 0.6% to 2.4% in 1998), then a decrease of 0.7% in 1999, an increase of 2.5 percentage points in 2000 (3, 2%) and a gradual decrease which in 2003 had the lowest value of 0.2%. The upward trend continued in 2004 to 2007, which is registered as the year of highest liquidity on the capital market of the Republic of Macedonia from 6.1 %, that is a logical indicator of the state of the capital market corresponding with the high market capitalization in 2007. The stock turnover in 2007 was increased by the increased turnover of shares on the official and the regular market compared to 2006. In 2008, the stock turnover dropped to 1.6% (by 4.5 percentage points). The downward trend is evident in the coming years.

In addition, the indicator of the low liquidity of the stock exchange is also the high share in the turnover with the ten most traded securities. In fact, this shows us that it is a relatively small-sized market, i.e. a weak supply of securities with different characteristics. The greatest liquidity on our capital market was registered in the period 2005-2007, and especially in 2006. This situation, as mentioned above, is due to several activities undertaken in that period, such as the implemented reforms aimed at improving the stock

exchange operations, the exemption from the capital gains tax in order to encourage greater dynamics in trading in shares, the entry foreign investors, the participation of the two domestic pension funds in the trading of the stock exchange, the privatization of state capital, and the stable macroeconomic environment. In the years when the effects of the global economic crisis were most felt, the liquidity ratios of securities were very low. In addition, during the economic crisis, in 2008, the NBRM conducted a restrictive monetary policy, which caused the banks in the fight for greater liquidity to increase the interest rates on savings deposits. This meant absorbing a significant amount of free money to invest in the banking sector, and an additional blow to the liquidity of trading in securities on the stock exchange. Low liquidity continued in the following years, with the exception of a slight increase in 2011 and 2014. The limited liquidity of the Macedonian Stock Exchange disables the easy exit from the market, which adversely affects the value of the capital of the domestic investors.

2. MARKET CAPITALIZATION AS AN INDICATOR OF THE SIZE OF THE MACEDONIAN CAPITAL MARKET

The size of the capital market is usually reflected through market capitalization relative to the gross domestic product. Market capitalization is the value at which investors value a certain joint stock company on a particular day. This value is obtained by multiplying the total number of issued shares and the average stock price on a given date. In this way we estimate how much the company is worth in the market, or how much it is capitalized.

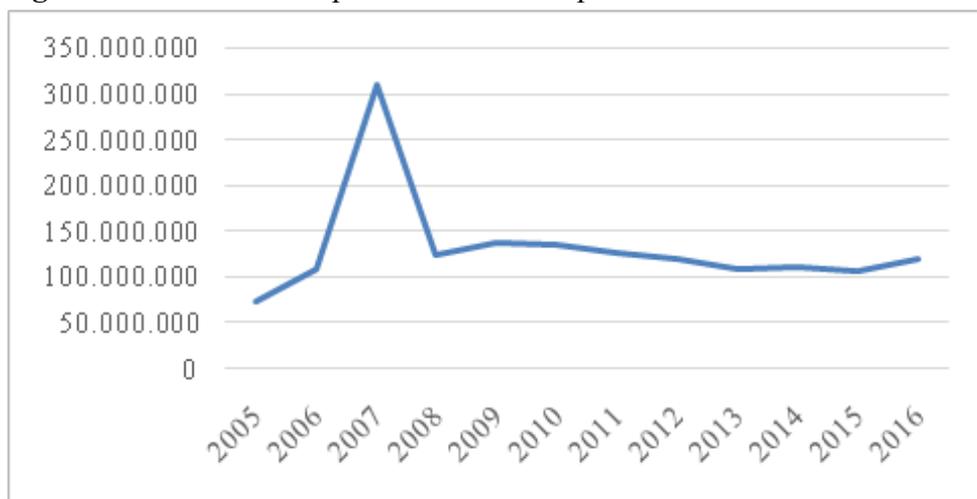
Below we present the total market capitalization, capitalization of shares and bonds in our country, as well as the percentage change for the period 2005-2016 (Table 2). From Table 2 it can be noted that in the period from 2005 to 2007, the total market capitalization is constantly increasing. This increase is due to the economic and financial boom in Macedonia, which was characteristic for those years, but above all because of the increase in the market capitalization of the shares, unlike the bonds in 2006 and 2007, when we notice a decrease as a result of the due annuities of the bonds and also on the pre-emptive redemption of the continuous government bond and the bond for remediation of Stopanska Banka AD Skopje, which happened in 2007.

After several years of growth in market capitalization, it significantly decreased in 2008, as a result of the consequences of the global economic crisis. However, we should bear in mind that due to the general aversion of investors for risk taking, reduced liquidity and fears of slowing down in the domestic economies, a reduction in market capitalization is noticed not only at our stock exchange, but also on almost all stock exchanges in the world and, of course, in stock markets in the region.

Table 2. Market capitalization (in total and as a percentage change) for the period 2005-2016

Year	Shares		Bonds		Total	
	Market capitalization	% change	Market capitalization	% change	Market capitalization	% change
2005	50.425.546.869	52,16	23.972.382.237	12,66	74.397.929.106	36,71
2006	86.482.150.528	71,50	22.436.317.815	-6,41	108.918.468.343	46,40
2007	288.765.400.791	233,9	20.309.065.558	-9,48	309.074.466.349	183,77
2008	106.290.316.076	-63,2	18.212.904.677	-10,32	124.503.220.753	-59,7
2009	122.080.076.689	14,86	14.883.330.348	-18,28	136.963.407.038	10,01
2010	122.577.939.865	0,41	12.511.677.891	-15,93	135.089.617.756	-1,37
2011	119.041.270.716	-2,89	8.563.567.068	-31,56	127.640.837.784	-5,54
2012	113.016.985.122	-5,06	7.353.535.935	-14,13	120.370.521.057	-5,67
2013	102.718.163.286	-9,11	6.616.404.276	-10,02	109.334.567.562	-9,17
2014	105.370.997.921	2,58	5.680.322.013	-14,15	111.051.319.934	1,57
2015	102.850.635.856	-2,39	4.881.457.420	-14,06	107.732.093.276	-2,99
2016	115.710.274.852	12,5	4.438.483.765	-9,07	120.148.758.617	11,5

Source: Annual reports for the Macedonian Stock Exchange AD Skopje for: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 and 2014 and the Annual Statistical Bulletin of the Macedonian Stock Exchange AD Skopje for 2015

Figure 3. Total market capitalization for the period 2005-2016

Source: Own illustration

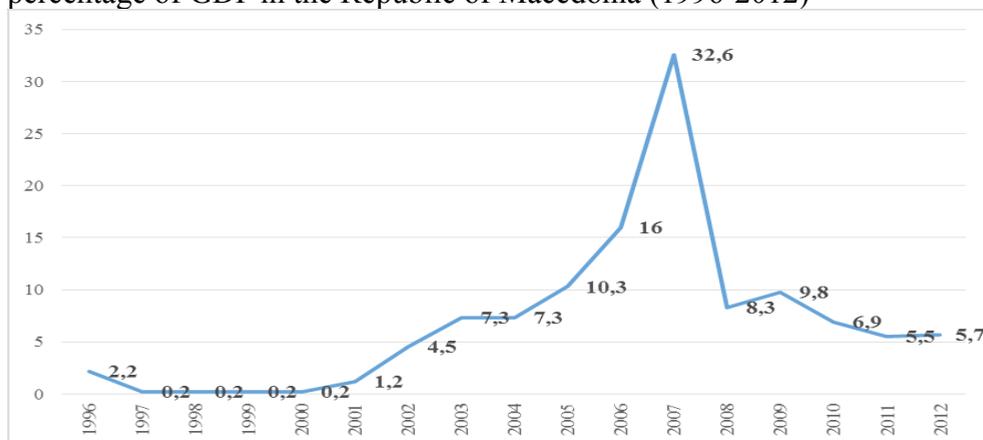
The following year 2009, the market capitalization of the bonds in relation to the previous year again dropped, but there is an increase in the market capitalization of the shares and an increase in the total market capitalization. In 2010 and 2011, the total market capitalization of both the shares and the bonds was reduced. Regarding the reduced market capitalization of the bonds, should be taken in consideration the due annuities of the denationalization bonds in 2010 and 2011 and the maturity of the bond for settling the claims of citizens on the basis of deposited foreign currency deposits in 2011. When it comes to reducing the market capitalization of the shares, in 2011, the reduced number of companies that listed on the stock exchange this year compared to 2010 should be taken into account. The situation was similar in 2012, when market capitalization declined by 5.67% compared to last year.

In the analysis of the market capitalization of the shares, a significant moment in 2013 was the introduction of the new market sub-segment on the official market of the stock exchange - the obligatory listing, which caused significant changes in the movements of the market capitalization of the listed companies. In contrast to the mild decline in the market capitalization of the listed companies in the first few months of the year, after the introduction of the obligatory listing, the enormous increase in the market capitalization of the listed companies occurred at the end of the first half of the year. This trend continued in 2014, when the market capitalization of the shares registered a

slight increase, but the market capitalization of the bonds dropped by 14.15% compared to last year, although the number of listed government bonds remained the same. In the last year of the analysis, we again notice a decline in the market capitalization of the bonds, unlike the shares where growth in market capitalization was 12.5% compared to 2015.

For the analysis of the development of the capital market, as previously mentioned, a more relevant indicator is the market capitalization expressed as a percentage of GDP. Figure 4 shows the values of this indicator, but which only applies to shares for the period 1996 - 2012.²

Figure 4. Market capitalization of shares listed on the stock exchange as a percentage of GDP in the Republic of Macedonia (1996-2012)



Source: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/MK?display=default> (accessed on 12.8.2017).

The market capitalization indicator expressed as a percentage of GDP in the years presented shows large fluctuations. Thus, in 1997, 1998 and 1999 it was 0.2% of GDP. Then, market capitalization has grown. This is mainly due to the reforms that were undertaken in the Republic of Macedonia in this period for development of the stock exchange, as well as the presence of the two investment funds from the second pension pillar and the stable macroeconomic situation in the analyzed period. During this period, there were several bigger sales that were realized on the Macedonian Stock Exchange with the privatization of state-owned enterprises. Especially significant in 2006 is the privatization of ESM and the entry of EVN Macedonia as part of

² The latest available data from the World Bank relate to 2012.

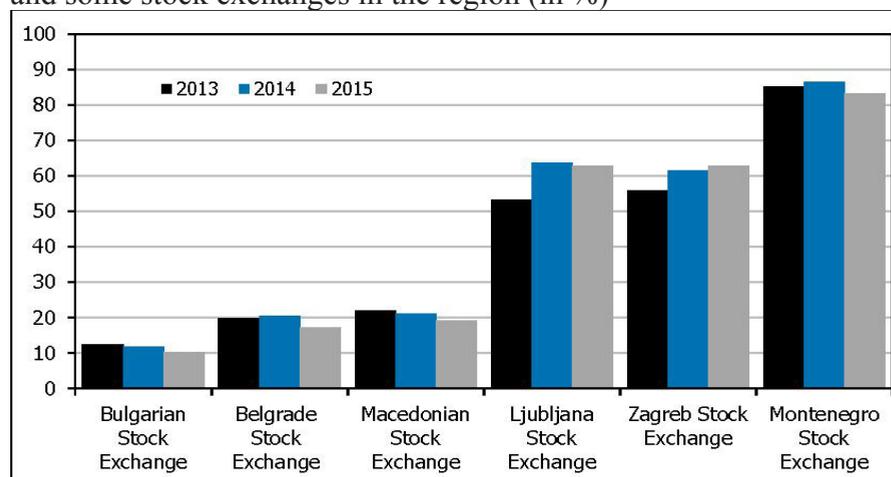
the EVN Group in the distribution and supply of electricity in the Republic of Macedonia. Market capitalization as % of real GDP in the Republic of Macedonia reached its highest value in the analyzed period in 2007. The high coefficient of market capitalization in 2007 is also linked to the high rate of economic growth in the same year. In the period of the global economic and financial crisis, more precisely since 2008, market capitalization as an indicator of the size of the capital market has seen a sharp decline. This analysis confirms the findings of the previous analysis of market capitalization taken as an absolute value.

3. A COMPARATIVE ANALYSIS OF SOME STOCK EXCHANGES IN THE REGION

In order to get a more realistic picture of the development of the Macedonian Stock Exchange, it is also necessary to make a comparative analysis with certain stock exchanges in the region. Comparative analysis takes into account the share of total market capitalization in GDP at certain stock exchanges in the region, as well as the correlation coefficient between the MBI-10 index and the indexes of certain stock exchanges in the region.

Figure 5 shows the share of the total market capitalization in GDP on the Macedonian and some stock exchanges in the region.

Figure 5. Share of the total market capitalization in GDP on the Macedonian and some stock exchanges in the region (in %)



Source: http://www.nbrm.mk/WBStorage/Files/WebBuilder_FSR_MKD_2015.pdf accessed on 20.8.2017

Based on the data from Figure 5, it is noted that the share of market capitalization in the GDP of the Macedonian Stock Exchange is only higher in relation to the Bulgarian and Belgrade Stock Exchange, but far behind the other three stock exchanges (Ljubljana, Zagreb and Montenegro Stock Exchange).

Table 3. Correlation coefficient of MBI-10 with indexes of stock exchanges in the region for the period 2012-2014

MBI-10 Skopje			
Market index	2012	2013	2014
BELEX15 - Belgrade	60,9	57,1	69,6
BET - Bucharest	41,9	-64,8	5,5
CROBEX - Zagreb	36,2	83,1	-4,6
EURO STOXX 50 Index	-20,7	-76,3	-31,9
SBITOP - Ljubljana	0,8	-14,9	10,5
SOFIX - Sofia	-53,2	-87,3	-25,5
WSE WIG20 - Warsaw	-41,2	-6,3	-12,8
BUX - Budapest	12,4	18,9	-52,1
SASX-10 – Sarajevo	42,6	45,4	-24,2

Source:http://www.nbrm.mk/WBStorage/Files/Regulativa_FSR_2014_1.pdf accessed on 20.08.2017

The unfavorable situation of the Macedonian Stock Exchange is also confirmed by the analysis of the degree of correlation of the index of the Macedonian Stock Exchange with the indices of certain stock exchanges in the region (see Table 3).

As can be seen from Table 3 in this three-year period of analysis, the number of stock exchanges with which MBI 10 index has negative correlation is increased, i.e. if in 2012 the MBI-10 index is in negative correlation with the indices of three stock exchanges in the region, in 2014, that number is growing to 6 stock exchanges.

Conclusion

The Macedonian capital market (that is, the Macedonian Stock Exchange as its representative) is a poor and illiquid market. The liberalization of the capital market and the reforms so far allowed to increase the market capitalization and the turnover on the capital market in the Republic of Macedonia, but it is still at unsatisfactory level. From the analysis made in the paper we can conclude that the Macedonian capital market in terms of its size and depth is much behind the countries with developed financial markets.

The impact of the global financial crisis on the Macedonian Stock Exchange was reflected with a slight delay, i.e. its effects began to be felt from 2009 when the turnover and market capitalization began to decrease continuously.

A capital market that is not profound as the Macedonian capital market, it is imperative that there is intense cooperation with the local stock exchanges. The integration of the Macedonian stock market on broader trading platforms, initially regional and later European, also will contribute to providing greater liquidity and attracting foreign portfolio investments, following the example of the developed stock exchanges in the world that are rapidly integrating. In this direction is the functioning of the joint platform SEE Link, which includes the Macedonian, Sofia, Zagreb, Belgrade and Ljubljana Stock Exchange, an initiative supported by the European Bank for Reconstruction and Development. This creates a significant market in which the offer consists of more than 500 securities, which is positive given the small regional local markets.

References

1. Mishkin F.: The Economics of Money, Banking and Financial Markets, 9th edition, Pearson, 2010.
2. Петковски, М.: „Финансиски пазари и институции – второ изменето и дополнето издание“, Економски факултет, Скопје, 2009.
3. Годишни извештаи за работа на Македонска берза АД Скопје за: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 и 2014
4. Годишен статистички билтен на Македонска берза АД Скопје за 2015 година
5. Извештај за финансиска стабилност во Република Македонија во 2014, НБРМ, 2015
6. <http://www.mse.mk/mk/content/22/1/2008/history>
7. <http://faktor.mk/2015/09/14/makedonska-berza-20-godini-od-pochetotsite-do-denes-shto-nauchivme-i-shto-n-ochekuva>
8. <http://www.mse.mk/Repository/UserFiles/File/ZABERZATA/Publikacii/brosura-mse-2013.pdf>
9. <http://www.nbrm.mk/default.asp?ItemID=75861540F6B1F84DA0F0817697B49AA6>
10. <http://www.mse.mk/mk/reports>
11. http://www.mse.mk/Repository/Reports/MK/ReportMK_10_20150101_20151231.pdf
12. http://www.nbrm.mk/WBStorage/Files/Regulativa_FSR_2014_1.pdf
13. http://www.nbrm.mk/WBStorage/Files/WebBuilder_FSR_MKD_2015.pdf
14. <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/MK?display=default>

ELENA DAVITKOVSKA*
IRINA MAJOVSKI**

THE STATE OF HUMAN RESOURCES IN THE PUBLIC SECTOR IN REPUBLIC OF MACEDONIA

Abstract

In the Former Yugoslav Republic of Macedonia, in the last seventeen years, efforts have been made to build a professional, expert and primarily depoliticised public administration in accordance with European standards. Unfortunately, we have failed to reduce political influence on the ‘meritocracy’ system, especially in terms of new employments, as well as on the progress and assessment of civil servants. Also, the professional development of civil servants was hampered by formal and systemic training problems, and they are implemented ad hoc generally without any order. Because of this paradox, the position of the Human Resources Departments in the official system is very similar to traditional ‘personnel departments’. The dilemma is whether the new legal solutions of 2015 (the Law on Public Sector Employees and the Law on Administrative Officers) will be an appropriate solution to the human resource management shortcomings of the past years and the citizens will finally receive a professional, expert and depoliticised public service working for the interest of the citizens.

Key words: public administration, human resources, depoliticization, meritocracy, civil servants, public servants, trainings

JEL classification: K10

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Introduction

Until the adoption of the Law on Civil Servants in 2000, the status of “civil servant” was not regulated at all; on the contrary, this person was defined as a “worker in an administrative body”, while their rights and obligations were regulated individually with a series of by-laws. Thus, the standards of the human resources management standards in the public administration until 2015 were regulated on the basis of the Law on Civil Servants and the Law on Public Servants, and after 2015, the new Public Sector Laws, namely the Law on Administrative Officers and the Law on Public Sector Employees. Although there were a number of shortcomings of the Law on Civil Servants, its main goal was better organization of the state administration towards meeting the needs of the citizens, and creation of personnel of administrative organizations characterized by high professionalism, expertise, depoliticization and autonomy in decision making, it helped enhancing the situation in the state administration a few steps ahead of the existing conditions before its adoption, if not otherwise, at least on the formal side. This law served as a *Lex Specialis* regulation that regulates the status, rights and obligations of officials employed in state and local government bodies and other state bodies, or a small percentage of public sector employees (civil servants from the central and local government whose total number is about 10,000), and for other public servants, who also belong to the domain of public law, a sea of special material regulations were applied, together with the provisions of the Law on Labor Relations at the same time. In 2010, for the regulation of all employees in the public sector, the Law on Public Officials was adopted, which we can freely say that he was and remained a mere word on paper. The legislator’s idea was to unify all the important questions about the status of employees in the public sector, creating bases for equalizing the procedures for admission, promotion, rewarding, determining titles and salaries for all persons employed in the public sector that can be defined as providers of public services. This goal was not realized primarily because the same provisions of the existing substantive regulations regulating the status and the official (i.e. according to the legal terminology of the working) relations of the employees in the public services remained in force. Thus, no attempt has been made to harmonize the Law on Health Protection, the Law on Science, the Law on Primary Education, the Law on Secondary Education, the Law on Higher Education, the Law on Culture, the Law on Pension and Disability Insurance,

the Law on Health Insurance, the Law on Fully Funded Pension Insurance, and numerous other laws with the new Law on Public Servants, i.e. state bodies and organizations whose employees do not have the status of civil servants, and provide public services. Just as an illustration: for a university professor, the provisions of the Law on Higher Education, such as *lex specialis*, were relevant, but at the same time this category of persons was covered by some of the provisions of the Law on Public Servants, and finally certain issues that were not regulated with none of the two listed laws are to be regulated by the Law on Labor Relations!?. Thus, till 2015, the legal framework that was the basis of the official system was fragmented, and especially the concern that in the Republic of Macedonia until the preparation of the Register for Public Sector Employees in 2016 by Ministry of information society and administration (MISA), there was no data on the total number of employees in the public administration.

The two new laws should constitute a complete legal framework for the status, rights, obligations, manners of selection, promotion, remuneration, professional development, accountability and termination of employment of all employees in the public sector. These include the general conditions for public sector employees, general rights, duties and responsibilities and termination of employment of public sector employees, rules for mobility of public sector employees, as well as categorization of work places by group, subgroup and category and levels that are regulated by *lex specialis*.

1. THE LATEST LEGAL SOLUTIONS IN THE FUNCTION OF IMPROVING THE HUMAN RESOURCES MANAGEMENT

The new legal solutions established the classification of jobs in the public sector in four groups:

- Jobs of administrative officials (state and public officials)
- Work positions of officials with special powers (10 subgroups of security, defense and intelligence)
- Work positions for public service providers (5 subgroups, works related to activities of public interest that do not have administrative/institutional nature)
- Work positions of auxiliary-technical personnel (5 subgroups, maintenance, security, transport, as well as other auxiliary and technical works that ensure the smooth functioning of the institutions)

The new legal solutions envisage an obligation for MISA to keep a Job Catalog and a Register of Public Sector Employees, which is a serious positive step towards determining the exact number of employees in the public sector with a precise description of their jobs. Unfortunately, the preparation of the Catalog and the Register did not proceed simultaneously with the preparation of the legal texts of the two new laws, which created the situation of the existence of laws, but not the basic tool for their realization. These two significant documents, if duly prepared by MISA as responsible for their preparation and further management, will contribute to the existence of a full systematic list of public sector jobs, organized in groups, subgroups, categories and levels. Unlike our country, in the Republic of Slovenia, the adoption of the legal framework for public servants took place simultaneously with the adoption of a separate law on their salaries, as well as a pre-prepared Job Catalog (all this accompanied by a long but strong social dialogue between the government and the union), so the implementation of the new legal solutions was carried out flawlessly and efficiently.

According to the new classification of job titles, there are four categories of administrative officials: A-secretaries; B-managerial administrative officers; C-professional administrative officers and G-auxiliary-administrative officers. Since category A, or the state and general secretaries, have been persons appointed with a given mandate, it can be concluded that category B or managerial administrative officers are the highest echelon of employees to whom the rules of official status apply. For all of them, new employment conditions are foreseen, although legally referred to as specific competences, they are general conditions that every officer in this category must fulfill: active knowledge of computer programs for office work, passed an administrative management test and knowledge of one of the three most commonly used languages of the European Union (English, French, German)

2. THE CURRENT STATE OF HRM IN THE PUBLIC SECTOR IN RM

2.1 Authorities responsible for human resources

From 2015, the status and the position of these segments is regulated pursuant to the Law on Administrative Officers, but despite all formal efforts, MISA still has insufficient power to coordinate and monitor human resources management, which is understandable because their own establishment was

problematic. Immediately after the adoption of the Law on Civil Servants in 2000, as well as the establishment of the Civil Servants Agency, although the form of organizational forms for human resource management was not precisely regulated, the legal basis for their formation was established. But such provisions were not with visible practical implementation. Thus, in 2005, only 9 organs of the central government had established human resources departments within the general affairs sectors¹. Until then, the state administration bodies still lacked understanding of the need for forming such organizational units, so that they only formally established HRM. On the other hand, the organs that predicted the formation of HRM in the systematization faced problems in their staffing from the existing staff². This was due, above all, to the inaccurate determination of the organizational forms for managing human resources. Therefore, in the Decree on principles for internal organization of the state administration bodies from 2007, the obligation to establish organizational forms for human resources management is independently determined outside the structure of the sectors that correspond directly to the secretaries of the civil service bodies³. These organizational forms should be standardized in all civil service bodies and develop good practices. But the European Commission's report pointed out that there are inadequate structures and inadequate administrative capacity for human resource management, policy making, strategic planning and internal coordination and planning⁴. Especially within ministries, there is no fully functional network of human resource management departments. The departments that have already been formed are exclusively dealing with personnel issues and are not sufficiently staffed to deal with training and assessment topics⁵. In 2009, a network of sectors/departments for human resource management was established in the civil service bodies. Its goal was to develop standards for development and management of human resources in the civil service, increasing the effectiveness, efficiency and quality of the working life of civil servants in the Republic of Macedonia. However, even

¹ Анализа на организациските облици за управување со човечките ресурси во органите на државната служба во Република Македонија, Агенција за државни службеници, 2009, стр.2

² Ibid

³ Чл.9 од Уредбата за начелата за внатрешна организација на органите на државната управа (Службен весник на РМ“ бр 105/07)

⁴ The Republic of Macedonia 2008 progress report, European commission staff working document, p 8-10

⁵ Ibid

after its establishment, the implementation of human resources standards went slowly; in a number of bodies in the HR department there is neither an adequate number of employees nor coherent planning for the needs of the HR within the entire state administration⁶. Strengthening their position separately is significant because of the fact that in the Republic of Macedonia for more than 15 years we have had serious problems with the construction of a small, professional, expert and depoliticized service system, and especially in the parts that refer to the taxpayer funded clusters of jobs, salaries of civil servants, training of civil servants, employment and evaluations of civil servants. For example, prior to the entry into force of the new Laws, there was another “boom” of politicization in the public administration by establishing new jobs on a political or social basis, in particular in the Public Organizations that are sporadic to the principle of merit, as well as job calls advertised by measure of an appropriate single candidate and unregulated employment of personnel, employment as social measures, instead of responding to the needs of the institution⁷. Public service politicization culminated in 2016, when public sector employees were forced to counter-demonstrations to fight against pressures, intimidations and lawsuits at their workplaces⁸.

2.2 Training as a condition for building a professional and professional administration

Till the adoption of the latest laws that regulate the status of employees in the public sector, training, as a basic right of employees, has not been mentioned at all, but their right to vocational training is emphasized, without obligation to attend training, as the basis for their further promotion, remuneration and, in general, improving their status within the public sector. In practice, although several strategic documents have been adopted, training of civil servants was ad hoc (unorganized activities)⁹, the institutions did not

⁶ The Republic of Macedonia 2010 progress report, European commission staff working document,p. 7-9

⁷ The Republic of Macedonia 2015 progress report, European commission staff working document,p. 9-11

⁸ The Republic of Macedonia 2016 progress report, European commission staff working document,p. 9-11

⁹ The Republic of Macedonia 2007 progress report, European commission staff working document,p. 9-11

finance training in general and professional development of civil servants was covered from their own budgets¹⁰. The systems for documenting the trainings were not centralized and revised, and, as a result, some of the administrative staff attended the same trainings several times.

This situation has been formally and legally surpassed by the adoption of the two key laws that apply to public sector employees. The Law on Public Sector Employees stipulates that employees in the public sector have the right to continuous professional development, for which the institutions are to create appropriate programs. If necessary, vocational training can also be conducted in the languages of the minority communities in the Republic of Macedonia. In the Law on Administrative Officers, however, a whole chapter refers to the professional development of administrative officers, which includes the training. Thus, the administrative officers have the right and obligation to professionalise themselves in the course of the year on the basis of the individual plan for professional development, as well as the obligation to transfer the acquired knowledge to other administrative officers. The plan is part of the system for managing the efficiency of the administrative officers. In the plan for professional development of the administrative officers, training and mentoring may be provided. The law provides for several types of training: generic and specialized, and can be organized in a classroom or through internet access from the workplace of the administrative officers to the electronic training management system:

- Generic trainings are conducted for the professional development of administrative officers in accordance with the framework of general competencies.
- Specialized trainings are conducted for the professional development of administrative officers in relation to the special competences and they can be organized in the Academy.
- Mentoring.

So far, 71 generic training courses have been prepared in a traditional way, in the classroom, as well as online, through both electronic systems, LMS and Micro Learning¹¹. Also, electronic training can be visited by each administrative officer through the MISA systems¹². So far over 10,000

¹⁰ Национален систем за координација на стручното оспособување и обука на државните службеници во Република Македонија, 2011, МИОА, стр.10

¹¹ Повеќе за можностите за стручно усовршување можат да се најдат на следниот линк: <http://administracija.mk/strucno-usovrsuvanje/obuki/>

¹² <http://e-obuki.mioa.gov.mk/>

administrative officers have attended training through electronic systems. The new HR software that was established in 2016 provides cumulative training data that has been implemented but we still do not have a central database of training provided by different institutions.¹³

2.3. Real novelties in the assessment

According to the Civil Servants Agency (CSA), the assessment of civil servants was performed by the immediate superior managerial civil servant or, in the bodies in which there are no managerial civil servants, the assessment is carried out directly by the superior senior official or the head of the body. The amendments and additions related to the evaluation of civil servants shortened the assessment period from 1 year to 6 months, thus facilitating the “cleaning” in the civil service. In the theoretical division of the systems for advancement (open, automatic and mixed), the Republic of Macedonia is in the group of mixed system, which has emphasized elements of an open system for advancement. This is mainly due to the manner of employment in the state administration. Therefore, in order to be promoted to a higher position, the official must respond to a public call when announced – the official enters in the competition as a candidate with equal rights, as well as all other candidates that meet the general and special conditions of the announcement, whether coming from inside the institution or from the outside¹⁴.

According to the European Commission, the large number of dismissals of officials in 2006 contributed to the slowdown in the law-making process, and the government was deprived of precious professionals who could provide better drafting of legislation and timely implementation. Thus, for example, in the Secretariat for European Affairs, 40 employees were actually degraded, which is actually 2/3 of the permanent staff, based on their illegal appointment, a decision that was later confirmed by the Civil Servants Agency¹⁵. The method used, as well as the period in which the degradation was carried out, has negatively affected the functioning of the Secretariat to

¹³ The Republic of Macedonia 2016 progress report, European commission staff working document, p. 18

¹⁴ Гризо, Н. Давитковски, Б. Павловска – Данева, А., 2011, Јавна Администрација, Скопје: Правен факултет “Јустинијан Први”УКИМ, Скопје

¹⁵ The Republic of Macedonia 2007 progress report, European commission staff working document, p. 9-11

some extent. However, the Civil Servants Agency reported that in September 2008 there were 77 illegal promotions, 38 of which were in the Ministry of Economy¹⁶. The EC's 2010 Progress Report highlighted: The politicization of the state administration is still worrying. There have been cases of replacing trained professionals with persons with limited experience within several institutions¹⁷.

Evaluation of administrative officers has been altered in relation to previous evaluation methods. Thus, the administrative officers, except for the secretary and the office employees, are obligatorily assessed once a year, by December 1 for the current year at the latest. In more detail, the types of grades look like this: "particularly prominent", if the officer has a grade from 4.51 to 5.00, "stands out" if the officer has a grade from 3.51 to 4.50, "satisfies" if the officer has a grade from 2.51 to 3.50, "partially satisfies" if the officer has a grade from 1.51 to 2.50 and "does not satisfy" if the officer has grade from 1.00 to 1.50.

The consequences of poor assessment are a complete novelty for the Macedonian official system, but also wider, because such experiences are no known comparatively as well. Namely, the new legal solutions envisage that the last 5% of administrative officers in the ranking list:

- Have their employment terminated if they are rated "not satisfied",
- Have the salary reduced by 20% over a period of six months if they are rated "partially satisfied", and
- Have a salary reduction of 10% over a period of six months if they fall in the last 5% of the ranking, and are not rated "not satisfying" or "partially satisfied".

We focus our critical attention on the first and third bullet in this listing of the negative consequences of the assessment. Termination of an employment by automatic nature for an unsatisfactory assessment which, in most cases, may depend on the subjectivity of the superiors, is, in our view, a dangerous tool in the hands of the evaluators, especially in the absence of a full system of meritocracy in the administrative service. It is also difficult to find arguments to justify a decision according to which the five percent of the officials with positive grades, who are at the bottom of the ranking, without any explanation, will have 10% of the salary deducted for six months consecutively. These are

¹⁶ The Republic of Macedonia 2009 progress report, European commission staff working document,p 8-10

¹⁷ The Republic of Macedonia 2010 progress report, European commission staff working document,p. 7-9

people whose work, labor and efficiency were assessed with the three best grades - “especially outstanding”, “outstanding” and “satisfying”. Thus, in a hypothetical situation in which, in one institution, all employees would be assessed with grades “particularly prominent” and “outstanding”; however, by the force of the law, the last five percent of the officials who received the grade “stand out” (is extremely high in the hierarchy of grades) will have to be punished with a six-month reduction in their salaries!?

Administrative officers who are rated “partially satisfied” in two consecutive assessments shall have their employment terminated.

The evaluation of the administrative officer is carried out by the immediate superior administrative officer or the managerial administrative officer, the secretary or the manager of the institution. Grades 1 to 5 are provided, but with the highest grade 5 can be rated up to 5% of the employees in the institution. The officer’s annual assessment is consists of: 65% of the assessor, 35% average grade of 4 other officers, 2 of which from the same rank and 2 with a lower rank. Taking into account the previously mentioned, it can be concluded that the previous decision remains in force, according to which the influence of the superior in the assessment is of primary importance and the overall annual assessment of the employee depends primarily on the relationship and the decision of their supervisor. Of course, with the fact that only 5% of all employed officials in one institution can get the highest rating, there is no other explanation, even less justification for such a legal solution, except for the need of the legislator and the proposer, on one hand to stimulate employees for good and efficient work, and on the other hand to save budget funds for rewarding those same good and efficient officials, which in itself is contradictory. Or in other words: in order for only 5% of the officials to be rewarded, each institution will have 5% of the penalties so that the rewards can be compensated from the penalties.

Conclusion

Some of the significant new changes regarding the status of public sector employees were not implemented in 2010 with the establishment of the new Ministry of Information Society and Administration, nor did a dramatic reversal occur with the entry into force of the Law on Administrative Officers and Law on Public Sector Employees from February 2015.

Even after the entry into force of the Law on Public Sector Employees, the status of employees in public institutions, funds, public enterprises, regulatory bodies, etc. is regulated with specific material regulations in which they should be implemented only with the groups and subgroups listed in the said Law. Such formal adjustments, in fact, took place immediately after the adoption of the Law, when at one session the Assembly of the Republic of Macedonia made amendments to the Law on Secondary Education, the Law on Primary Education, the Law on Science, the Law on Culture, the Law on Health Protection, etc.), in which attempts to equalize the categories of employees in the public sector, which until now (for example, in the Law on Higher Education was clearly and precisely defined - groups of academic titles from junior assistant to a full professor) was regulated.

When it comes to civil servants, they are now covered by the new Law on Administrative Officers according to which the employees in the so-called standard administration employed in public enterprises, institutions, funds, etc. is equalized in its status with the existing civil servants, which, within the scope of the Law on Administrative Officers, will significantly increase by adding the number of these employed persons.

The general conclusion from the analysis of the latest legal texts is that the entry and promotion criteria in the administration are tightened in comparison with the Law on Civil Servants. Part of the previous special conditions (knowledge of foreign language and computer skills) for certain positions became general conditions without which the status of an official can not be acquired.

Regarding the extensiveness of the official legislation, we believe that, if the aim is to provide a special legal regime that regulates the legal status of employees in the public and state administration, it is more appropriate to classify the categories of titles, that is, the clerical hierarchy to be regulated by law because it provides a higher degree of uniformity and reduces the danger of excessive fragmentation of the voluminous and heterogeneous public sector.

Therefore, we support the decision in the Law on Administrative Officers and the Law on Public Sector Employees to regulate the categories, groups and titles of the employees in the public sector by law. Without this approach, the cataloging of more than three thousand jobs would be even more difficult and impossible. However, it remains illogical to adopt an extensive legal framework for the employees in the (entire) public sector in the Republic of Macedonia, which exempts the employees in the bodies that, according to their functional tasks (must) belong to the system of state administration and other special bodies of the state: administration, tax administration, professional services in the judiciary, professional services in the public prosecutor's office, the National Bank, the state audit, the inspection services, and the classical administration employed in the regulatory bodies.

The laws provide a grading scale, a basis for assessment, and the consequences of the grades received by officials as a mathematical quota for the number of top-ranked officials. Legislation seems inclined to sanction "incompetent" officials and again proposes mathematical quotas in which some of the employees will be in the group of poorly assessed and will be subject to a sanction by force of law, offering only a mitigating circumstance for officials who will be found in 5% of the worst evaluated and who still do not have low grades, but simply have lower grades than others.

Professionalism in the public service can only be provided through good managerial standards and human resource management practices that can only be provided through a permanent institution that will take care of the promotion and development of staff in the public sector. Therefore, the training process should be set aside from the competence of MISA and at the state level to form, by law, a special academy for professional training for public sector employees and the administration. It is no coincidence that in the draft document of the Public Administration Reform Strategy for the period 2017 - 2022 the professional development of the public sector employees is taking special place, which is also implemented in the Action Plan, which through actions, deadlines, cost estimates, sources of financing and indicators implement the aforementioned strategic determinations in the public sector.

References:

1. *Гризо Н. Давитковски Б. Павлова - Данева А. (2011) Јавна администрација, Правен факултет “Јустинијан први“ Универзитетот Св. Кирил и Методиј, Скопје*
2. *Годишна програма за генеричка обука на државните службеници во РМ за 2011 година., 2011, Скопје: Министерство за информатичко општество и администрација*
3. *The Republic of Macedonia 2007 Progress Report, Commission Staff Working Document, Brussels, 6 November 2007 SEC(2007)1432;*
4. *The Former Yugoslav Republic of Macedonia 2008 Progress Report, Commission Staff Working Document, Brussels, 5 November SEC(2008) 2695*
5. *The Former Yugoslav Republic of Macedonia 2009 Progress Report, Commission Staff Working Document, Brussels, 14 October 2009 SEC(2009) 1335;*
6. *The Former Yugoslav Republic of Macedonia 2010 Progress Report, Commission Staff Working Document, Brussels, 9 November 2010 SEC(2010)1332;*
7. *The Former Yugoslav Republic of Macedonia 2011 Progress Report, Commission Staff Working Paper, Brussels, 12 October 2011 SEC(2011)1203 final;*
8. *The Former Yugoslav Republic of Macedonia 2012 Progress Report, Commission Staff Working Paper, Brussels, 10 October 2012 SWD(2012) 332 final*
9. *The Former Yugoslav Republic of Macedonia 2013 Progress Report, Commission Staff Working Paper, Brussels, 16 October 2013 SWD(2013) 417 final*
10. *The Former Yugoslav Republic of Macedonia 2014 Progress Report, Commission Staff Working Paper, Brussels, 3 September 2014 SWD(2014) 287 final*
11. *The Former Yugoslav Republic of Macedonia 2015 Progress Report, Commission Staff Working Paper, Brussels, 10 November 2015 SWD(2015) 212 final*
12. *The Former Yugoslav Republic of Macedonia 2016 Progress Report, Commission Staff Working Paper, Brussels, 9 November 2016 SWD(2016) 362 final*

13. *Law on Public Servants(Official Gazette of RM no52/2010, 36/2011, 86/2011, 132/2011, 6/2012, 24/2012, 27/2012, 53/2012, 15/13, 82/13,106/2013)*
14. *Law on Public Sector Employees (Official Gazette of RM Number 27/2014, 199/2014 u 27/2016)*
15. *Law on Administrative Officers (Official Gazette of RM Number 27/2014, 199/2014, 48/2015, 154/2015, 5/2016 u 142/2016)*
16. *Law on Civil Servants (Off. Gazzete of RM No. 59/2000, 112/2000, 30/2001, 34/2001, 103/2001, 43/2002, 98/2002, 100/2002, 17/2003, 40/2003, 84/2003, 85/2003, 17/2004, 69/2004, 81/2005, 61/2006, 36/2007, 118/2008, 128/2008, 161/2008, 6/2009, 114/2009, 1/2010, 35/2010, 167/2010, 36/2011, 6/2012, 24/2012, 15/2013, 82/2013, 106/2013);*
17. *Национален систем за координација на стручното оспособување и обука на државните службеници во Република Македонија, 2011, МИОА*
18. *Анализа на организациските облици за управување со човечките ресурси во органите на државната служба во Република Македонија, Агенција за државни службеници ,2009*
19. *<http://administracija.mk/strucno-usovrsuvanje/obuki/>*
20. *<http://e-obuki.mioa.gov.mk/>*

IRINA MAJOVSKI*

MAJOR TRAINING BARRIERS IN SMALL FIRMS IN MACEDONIA

Abstract

Recent studies on employee training have confirmed the significant gap in training provision between small and large firms. Training activities are substantially lower in small than in larger firms across all countries in Europe. Small businesses face considerable obstacles to providing employee training. Identifying the major obstacles to training provision would enable developing appropriate policies to foster employee training among small firms. High costs, lost working time, lack of suitable courses in the market and difficulty in assessing training needs are perceived as the most significant barriers by small businesses in R. Macedonia.

Keywords: employee training, small businesses, training barriers

JEL classification: M53

INTRODUCTION

The issue of SMEs investing significantly less in employee training as opposed to large firms has raised the interest among researchers in recent years. As SMEs account for more than 99.8% of companies in Europe, the vast majority of them being micro businesses, their training provision, i.e. the extent and quality, is an important determinant of the overall training levels in the economy as well. Yet, studies have found considerable difference in training provision between small and large firms. In particular, in the OECD countries, SMEs provide 50% less training to employees as opposed to large firms. For example, the LEED studies conducted in several countries as UK, Canada and New Zealand revealed that about a third of small firms have

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not participated in training in the past year¹. Moreover, empirical studies reveal that training participation levels differ significantly among countries in Europe². In particular, the Scandinavian countries show considerably higher participation than Southern European countries.

The main objective of training is to improve human capital and thus increase the productivity of firms and the overall competitiveness of the economy, generating benefits for individuals, firms and society. In this context, investments in human capital have been considered essential to sustainable economic growth. Yet, due to various forms of market imperfections and internal obstacles of training, firms invest insufficiently in training of their workforce. Namely, about one third of the firms in EU did not provide any training to employees. Such trend has been evident in the past decade as well³. Nevertheless, the rapid pace of technological improvements and more sophisticated production processes impose higher demand for employee training as skills become obsolete more quickly than ever before. Thus, workforce upskilling is especially important in small firms not only because they are said to constitute the backbone of every economy but also because small firms face increased obstacles to training in comparison to larger firms.

Therefore, understanding the specifics of employee training in small firms and identifying the major barriers pertaining to training provision is paramount to increased levels of employee training. The last few years have witnessed some progress in employee training practices among small firms. Namely, the EU continuous vocational training survey has revealed that firms are paying increasing attention to the effects of the training they provide⁴. The most frequently used training evaluation practices among firms refer to participant satisfaction and employee performance. Small firms do not lag behind significantly since, over the period of 2005 to 2010, the evaluation practices have diffused more quickly among small firms than among large ones, thus narrowing the existing gap. These widely used criteria of training effectiveness reveal increased awareness of the effects of training among employers. Nevertheless, a more strategic approach to employee training

¹ OECD, "Skills development and Training in SMEs", OECD Publishing, 2013, p. 16

² Ok, W. & Tergeist, P., "Improving workers' skills: Analytical evidence and the role of the social partners", OECD Social, Employment and Migration Working Papers, 2003, p. 11

³ EIM/SEOR, "Policy Instruments to Foster Training of the Employed", vol. 1, Zoetermeer/ Rotterdam, 2005, p. 26

⁴ Beraud, D. "SMEs are increasingly interested in the effects of training", Training and Employment, No.114, 2014, p. 1-4

and a systematic evaluation of the impact of training increases with the size of the firm, mainly due to the existence of HR departments, as well as with the firm's strategic commitment to employee training, related to continuous evaluation of training needs, well-developed training plan and higher rate of access to training.

1 TRAINING IN SMALL FIRMS

According to Eurostat's latest survey on vocational training, about two thirds (66%) of European enterprises provided some type of employee training⁵. Formal courses, internal or external, were found to be the predominant type of training that was provided by firms in all EU countries as opposed to other types of training (job-rotation and exchanges, learning circles, self-directed learning, and alike). The share of firms that provide training courses differs significantly among the EU countries, ranging from 22 % in Poland to 91 % in Denmark and even higher (97 %) in Norway. The proportion of enterprises providing training courses exceeds the EU-28 average in Norway, Denmark Sweden, Belgium, Austria, Spain, France, the Netherlands and Finland.

Training participation among small firms however is consistently lower in all countries. In 2010, employees' rate of access to training courses was 25% in small firms up to 49 employees and 46% in those with at least 250 employees⁶. In addition, there are significant disparities in training within Europe as a result of the national specificities that dictate the rate of access to training, funding and the type of training undertaken. For example, several countries, as Poland, Greece, Bulgaria, Romania, Hungary, Croatia, are characterized by limited training provision since both the share of firms providing training and the employees' rate of access to training are relatively low compared to the EU average.

Based on Eurostat's data these differences are even more pronounced in small firms with less than 50 employees as firms' training commitments were found to depend to a great extent on the size of the firm⁷. Namely, the difference between EU countries in the share of small firms that do not provide training to their employees amounted to 73 percentage points, ranging from 11% in

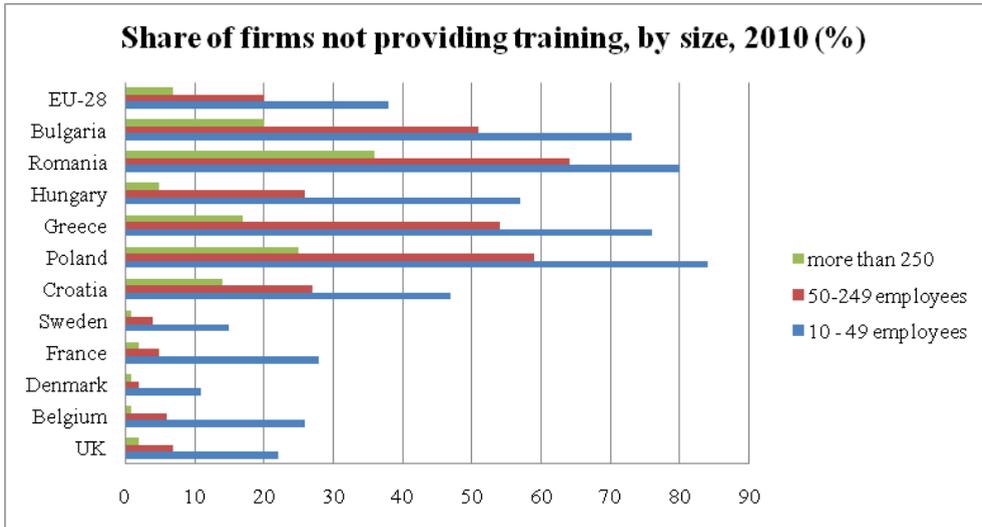
⁵ Eurostat, Vocational education and training statistics, 2016 [http://ec.europa.eu/eurostat/statistics-explained/index.php/Vocational_education_and_training_statistics]

⁶ Mignot, J.F., "Continuing training for employees in Europe: the differences between countries continue to narrow", Training and Employment, No.106 July-August 2013, p. 2

⁷ Eurostat, 2016, [<http://appsso.eurostat.ec.europa.eu>]

Denmark to 84% in Poland (Figure 1). This gap however is less significant for the large firms that did not provide training, with the lowest share of non-trainers in Belgium and Sweden (1%) and the highest in Romania (36%).

Figure 1. Share of all non-training firms in European Union in 2010, by size class



Source: Eurostat data, 2016

Limited employee training provision by small firms has been well documented in the literature as most studies found significant discrepancies between the level of training provision of small and large firms. What is even more concerning is that the latest data point to the fact that about 20% of small firms with between 10 and 49 employees provide only compulsory training so as to meet statutory requirements compared to just 7% of firms with over 2,000 employees⁸. In fact, most of the small firms that do provide training to employees with the purpose of acquiring skills and competences mainly do so by conducting informal training which is provided in-house. This is primarily a result of the greater opportunity that this type of training offers for tailoring the training according to the specific needs of firms. Yet, even when considering this type of training, the gap in training provision between small and large firms is still not negligible.

⁸ Dubois, J., Marion-Vernoux, I., Noack, E., “The training and employee trajectory surveys: a new look at in-firm training”, Training and Employment, No. 121, Jan-Feb 2016, p.2

Significant number of empirical studies has addressed the benefits of employee training for businesses and the different motives of firms behind the training. This issue is however much more complex for small and medium-sized businesses than it is for large ones. Namely, the motivation for the scale and scope of training provision among firms is closely related to their needs, which are derived from their overall business strategy. Hence, the motivation for employee training is diverse among small firms as they include start-up firms, growth firms, innovative firms and technology-intensive firms, as well as firms that may not be growth or innovation oriented. In this context, small firms that pursue innovation or growth strategy reveal similar training behavior to large firms than to other small firms⁹. Indeed, higher levels of training provision are found among small firms that frequently have to deal with change, whether in technologies, processes or in relations with clients; in fact, those firms that attach considerable importance to the latest technological and market developments and to innovation.

2 BARRIERS TO TRAINING IN SMALL FIRMS

Limited training provision among small firms has been closely connected to several factors, some of them directly related to the very specifics of small businesses, such as absence of training departments and training plan or budget, poor, if any, evaluation of training needs, HR strategy not incorporated into the overall business strategy, and alike¹⁰. The above factors result in lack of formality of training and thus limited training provision.

Not excluding the above, small businesses face additional challenges pertaining to employee training and constantly identify more barriers to training than larger firms. Research on small and medium-sized firms has identified several barriers that are observed to be critical to the limited provision of employee training. Small firms have less available time to devote to training, rather limited resources, including financial resources, insufficient information on training opportunities and less comprehension of the benefits of training to their workforce.

⁹ Rabemananjara, R. & Parsley, C., "Employee training decisions, business strategies and human resource management practices: a study by size of business", Small Business Policy Branch, Industry Canada, 2006, p.13

¹⁰ Beraud, D. "SMEs are increasingly interested in the effects of training", Training and Employment, No.114, 2014, p. 2

Cost of training is probably one of the most frequently cited obstacles to providing employee training by small firms. This is not only because small firms have more financial constraints compared to medium- and large-sized firms, but also because the average cost of training per employee is significantly higher in small firm (more than three times) than in large firms, mostly due to the fact that small firms cannot achieve economies of scale as large businesses when they provide training to their employees¹¹. In addition, even when the market price is identical, the ‘real’ price paid by small firms is much higher as a result of the various opportunity costs, some of which refer to employee absence from the workplace¹². Given the opportunity costs that arise from formal training, small firms tend to use informal methods of training that meet their immediate business goals.

Lack of information on available training in the market is also cited as a barrier to training for small businesses. Small firms are less informed on the available training providers and the training programs offered in the market. Furthermore, small firms encounter difficulties in accessing training tailored to their needs since providing customized training to small number of trainees by external providers substantially raises training costs. Therefore, training programs offered in the market are frequently considered to be general and not of specific relevance to businesses¹³. Another problem for small firms that lack HR specialists could be the inability to appropriately assess the training needs of the employees which could lead to miscomprehension of the current and future needs for skills and expertise.

The most common reasons stated by small firms in EU countries for not providing training was that firms either tried to recruit people with the required skills (49 %) or that the existing skills and competences of their workforce already corresponded to their needs (77 %)¹⁴. Lack of time, high training expenses and lack of suitable training courses in the market were also pointed as reasons for not providing training to their employees. The two most frequently stated reasons for not providing training to employees are directly related to the recruitment strategies. However, in the long run, and

¹¹ Stone, I. “Encouraging small firms to invest in training: learning from overseas”, Praxis, UK Commission for Employment and Skills, Iss.5, 2010, p.10

¹² Westhead, P. & Storey, D. “Management training and small firm performance: why is the link so weak?”, International Small Business Journal, Vol. 14, No. 4, 1996, p. 19

¹³ Ibid, p. 20

¹⁴ Eurostat, Vocational education and training statistics, 2016 [http://ec.europa.eu/eurostat/statistics-explained/index.php/Vocational_education_and_training_statistics]

taking into account that the rapid changes in the global market make skills and competences obsolete faster than ever before, this might cause severe ramifications to both employees and firms if seeking to keep pace with the competition.

3 TRAINING BARRIERS IN SMALL FIRMS IN R. MACEDONIA

Formal courses offered by external providers are usually considered to be costly, time-consuming and general. Therefore, smaller firms tend to provide in-house training as it could be tailored as to meet their specific needs and delivered at times and in formats convenient to businesses. In-house on-the-job training could provide skills and expertise to employees that are closely related to the specifics of their job and could tackle immediate problems that affect their everyday operations.¹⁵ This trend is evident among small businesses in R. Macedonia as well.

To analyze the main specifics and barriers of employee training in small firms in R. Macedonia, a survey was sent to 58 businesses that employ less than 50 employees. Since the response rate was 67%, only 39 questionnaires returned by small firms were further analyzed. The overall findings are consistent with those of the studies conducted in small firms in most of the European countries.

Generally, employers provide training to employees for variety of reasons as upgrading employees' skills, improving employee performance, facilitating introduction of new products, processes or technologies, increasing productivity and improving business performance. The evidence on small firm preference on training suggests that employers mainly undertake training to achieve short-term goals as overcoming ongoing challenges or facilitate employees to perform their current jobs¹⁶. In this regard, the main motives for providing training to employees as identified by small businesses in Macedonia refer to improvement of employee skills required for their current job roles and improvement of the overall business performance and productivity. In fact, the primary incentive for about 33% of small firms to provide employee training was upgrading workers skills (Figure 2). About 49% of small firms provided employee training to either increase productivity

¹⁵ Stone, I., "Upgrading workforce skills in small businesses: Reviewing international policy and experience", LEED/OECD, Report, 2012, p.5

¹⁶ Kitching, J. & Blackburn, R., "The nature of training and motivation to train in small firms", Small Business Research Centre, Kingston University, Report RR330, 2002, p.16

or improve the overall business performance (26% and 23% respectively). Providing employees with formal qualification or providing employees with skills necessary to meet future needs of the businesses were not considered to be a priority for small firms. These findings support the idea that small firms are characterized by short-termism, that is, they are rather oriented to achieving immediate goals and shorter horizons as opposed to long-term objectives¹⁷.

Figure 2. Main incentives for providing employee training in small firms



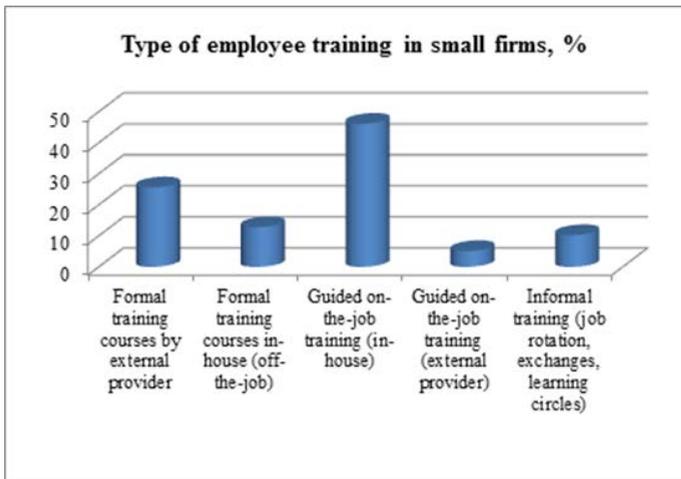
Source: Author's findings

Recognizing the above, it is not surprising that small businesses prefer guided on-the-job training that is provided in-house. In fact, recent studies have found that this is the most preferred type of employee training among small firms. There are several reasons for informal on-the-job training preference by small businesses, some of them pertaining to: 1) informal training allows businesses to overcome the major challenges they face while undertaking employee training such as lost working time, high training costs and alike; 2) it enables tackling immediate problems related to job specifics and has the advantage of relevance; 3) it is tailored to meet the specific requirements of individual jobs and the business; 4) limited external training opportunities relevant to the businesses.

¹⁷ Shury, J., Davies, B. & Riley T., "Skills for the workplace: Employer perspectives", UK Commission for Employment and Skills, 2008, p.18

In similar vein, small businesses in R. Macedonia mainly prefer guided on-the-job training that is provided in-house. Almost half of the surveyed businesses (46%) have reported in-house on-the-job training as the most favorable type of employee training. Worth noting though is that small businesses in R. Macedonia are not inclined to use other forms of informal training as job rotation, exchanges and alike. In comparison, the EU countries, as Sweden, UK and Germany, that report highest levels of employee training among SMEs, rather extensively use these forms of informal training¹⁸. However, when it comes to formal training, courses by external providers are the preferred type as opposed to in-house courses. About 25% of surveyed businesses prefer this type of training. Firms usually rely on formal training delivered by external provider when they seek to upgrade generic, management or entrepreneurial skills of their employees¹⁹ or when they lack the required resources as necessary expertise and knowledge of the subject or the adequate equipment. Taking into account that both external and in-house training have their own advantages, some businesses seek to combine the advantages of both external providers and on-the job training, in cases, for example, when a new technology is being introduced.

Figure 3. Type of employee training preferred by small firms



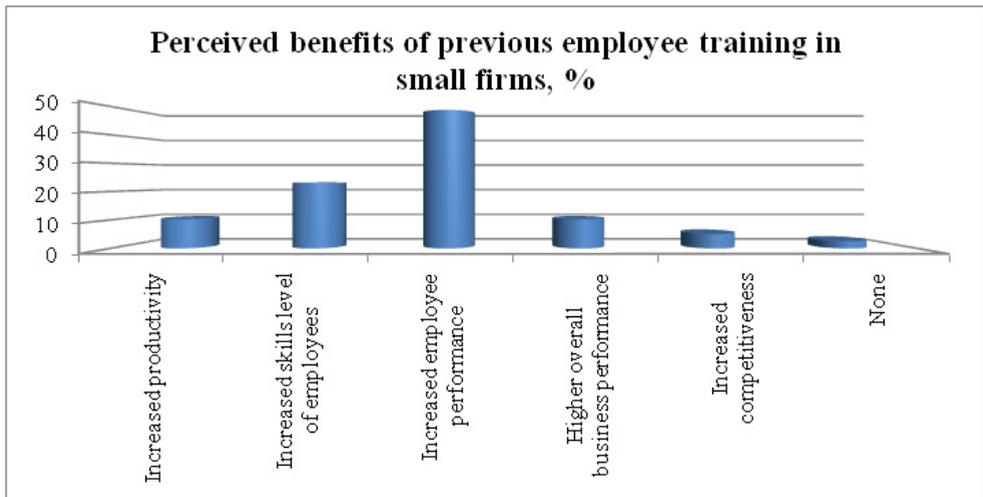
Source: Author's findings

¹⁸ Mignot, J.F., "Continuing training for employees in Europe: the differences between countries continue to narrow", *Training and Employment*, No.106 July-August 2013, p. 2

¹⁹ De Vos, A. & Willemse, I., "Leveraging training skills development in SMEs: an analysis of East Flanders, Belgium", *OECD (LEED) Working Paper*, 2011, p. 30

Evaluating the potential benefits of employee training as perceived by employers is of utmost importance mainly because employers' perception of training benefits is directly linked with their inclination to provide employee training. Small businesses in R. Macedonia generally regard enhanced employee skills and increased employee performance as primary benefits of employee training. In this context, nearly 49% and about 23% of all surveyed businesses consider increased employee performance and skills levels of employees, respectively, as primary benefits of training (Figure 4). Furthermore, 20% of firms believe that employee training positively affects productivity and the overall business performance. Significant empirical attempts have been made to find a positive correlation between employee training and several business performance indicators as productivity, profit, revenue, sales. Yet recent studies found that employers generally measure direct outcomes of employee training as, for example, improvements in employee performance²⁰; and they do so in an informal manner mainly through observation of employees' job performance.

Figure 4. Benefits of employee training identified by small firms

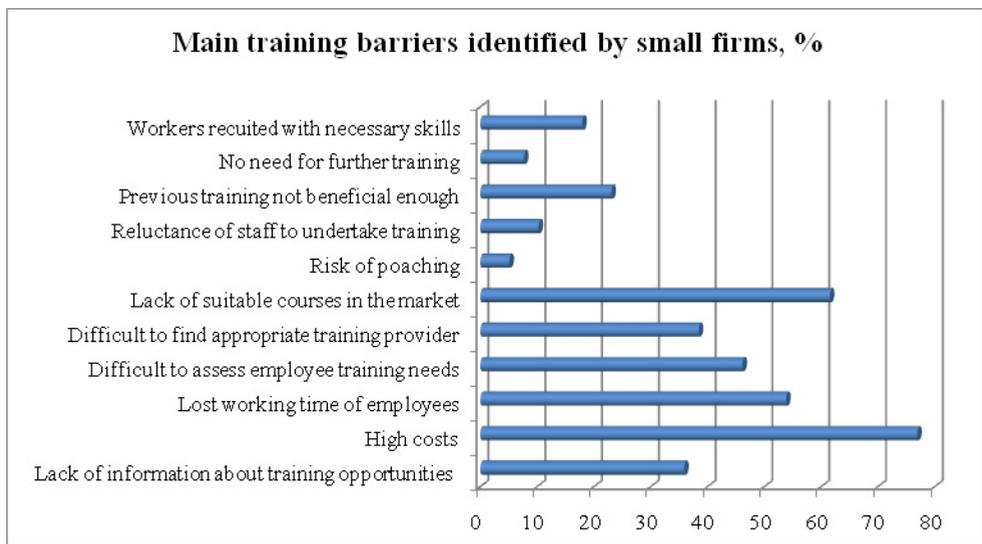


Source: Author's findings

²⁰ Beraud, D. "SMEs are increasingly interested in the effects of training", Training and Employment, No.114, 2014, p. 1-4

Lost working time and high costs related to external employee training remain to be the most significant obstacles among small businesses in Macedonia as well. In particular, almost 77% of small firms consider high training costs and just more than half (53.8%) of all surveyed firms consider lost working time to be major barriers to employee training (Figure 5). However, a rather significant share of small firms point to the lack of suitable courses in the market as a major barrier as well. Namely, access to suitable courses and appropriate training provider are perceived as obstacles to training by over 90% of surveyed firms. Such supply-side weaknesses pertaining to the quality or quantity of external training provision were not found to be perceived by small firms in EU. For example, only 5% of small firms in Belgium²¹ and 12.8% in UK²² perceive lack of suitable external training to be an obstacle.

Figure 5. Major obstacles for employee training identified by small firms



Source: Author's findings

Another challenge to employee training among small firms in R. Macedonia refers to their inability to assess training needs of their employees. A rather significant share of firms (about 46% of surveyed businesses) consider assessing training needs to be an obstacle as opposed to only 10% of small

²¹ De Vos, A. & Willemse, I., "Leveraging training skills development in SMEs: An analysis of East Flanders, Belgium", OECD (LEED), 2011, p. 35

²² Kitching, J. & Blackburn, R., "The nature of training and motivation to train in small firms", Small Business Research Centre, Kingston University, Report RR330, 2002, p.57

firms in EU²³. The difficulty of small businesses in R. Macedonia to assess the real training needs could be due to the lack of HR specialist and expertise, which is common for most small firms, and could also result in inadequate training investments that would not meet the required objectives of the firms. Hence, it is not surprising that about 23% of small firms do not perceive any or sufficient benefits of their previous training. Identifying the most suitable training course and adequate training provider that would best accommodate the needs of the business is preconditioned by appropriately assessing the real training needs of the employees. In such a scenario, businesses would get the highest return on their training investments.

CONCLUSION

Training participation is directly related not only to the size of the firm but also to market conditions and business strategy of firms. For instance, businesses that operate in dynamic market environments or pursue innovation strategy would require regular innovations in products/services or working processes and therefore would seek to continuously upskill their workforce²⁴. Similarly, small firms that are not interested in expansion or innovation might not need to upgrade the skills of the workforce. This however does not fully explain why small firms considerably lag behind larger firms in training investments. Furthermore, even taking into consideration the above, lack of training investment in small firms could put into question their long-term profitability and the very survival of the businesses. In this context, identifying the major barriers that small businesses face could assist in developing appropriate policies to facilitate training provision in small firms. Providing incentives and conditions to support training in small firms would lead to increased level of training in small firms and subsequently more skilled and productive workforce. In this context, most of the EU countries have developed different policies, as training subsidies or tax incentives, to foster employee training among small firms. In particular, the experience of EU countries that have introduced tax incentives to small firms so as to enhance training reveals that reducing the financial constraints of small firms results in higher levels of training provision.

²³ OECD, "Skills development and Training in SMEs", OECD Publishing, 2013, p 34

²⁴ Kitching, J. & Blackburn, R., "The nature of training and motivation to train in small firms", Small Business Research Centre, Kingston University, Report RR330, 2002, p.56

Research has supported the notion that small businesses prefer on-the-job training, provided in-house as opposed to formal external training. This type of training enables small businesses to overcome the potential drawbacks of external training that are perceived as obstacles and to provide customized training that encompasses the specifics of both the business and industry. High costs of external training and lost working time are considered to be main obstacles by small businesses in R. Macedonia. Moreover, finding suitable courses in the market and an appropriate training provider as well as assessing the training needs of employees are also perceived as a considerable challenge. Small businesses should either seek to outsource external or develop internal HR expertise to be able to assess the real training needs of their employees so as to gain maximum benefits of their training investments. In addition, adequate policies should be developed to overcome the existing supply-side deficiency regarding the quantity and quality of available training in the market.

References:

- Beraud, D. "SMEs are increasingly interested in the effects of training", *Training and Employment*, No.114, 2014
- De Vos, A. & Willemse, I., "*Leveraging training skills development in SMEs: An analysis of East Flanders, Belgium*", OECD (LEED), 2011
- Dubois, J., Marion-Vernoux, I., Noack, E., "The training and employee trajectory surveys: a new look at in-firm training", *Training and Employment*, No. 121, Jan-Feb 2016
- EIM/SEOR, "*Policy Instruments to Foster Training of the Employed*", vol. 1, Rotterdam, 2005
- Eurostat, "*Vocational education and training statistics*", 2016 [http://ec.europa.eu/eurostat/statistics-explained/index.php/Vocational_education_and_training_statistics]
- Kitching, J. & Blackburn, R., "*The nature of training and motivation to train in small firms*", Small Business Research Centre, Kingston University, Report RR330, 2002
- Mignot, J.F., "Continuing training for employees in Europe: the differences between countries continue to narrow", *Training and Employment*, No.106 July-August 2013

- OECD, “*Skills development and Training in SMEs*”, OECD Publishing, 2013
- Ok, W. & Tergeist, P., “Improving workers’ skills: Analytical evidence and the role of the social partners”, *OECD Social, Employment and Migration Working Papers*, 2003
- Rabemananjara, R. & Parsley, C., “*Employee training decisions, business strategies and human resource management practices: a study by size of business*”, Small Business Policy Branch, Industry Canada, 2006
- Shury, J., Davies, B. & Riley T., “Skills for the workplace: Employer perspectives”, *UK Commission for Employment and Skills*, 2008
- Stone, I., “*Upgrading workforce skills in small businesses: Reviewing international policy and experience*”, LEED/OECD, Report, 2012
- Stone, I. “*Encouraging small firms to invest in training: learning from overseas*”, Praxis, UK Commission for Employment and Skills, Iss.5, 2010
- Westhead, P. & Storey, D. “Management training and small firm performance: why is the link so weak?”, *International Small Business Journal*, Vol. 14, No. 4, 1996

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**DIGITAL TRANSFORMATION OF THE BANKING SECTOR IN
REPUBLIC OF MACEDONIA: STATE AND OPPORTUNITIES
FOR FURTHER ADVANCEMENT**

Abstract

Information communication technologies (ICT) advancements had a powerful meaning in the reshaping the banking industry and banking services during the last period. Hence it is essential to perform an analysis for the profound changes of financial digitalization on the demand and supply side in the banking industry, degree of digitalization in banking in general and particularly these processes in the Republic of Macedonia. The paper aims to determine the stance and the level of development of digital banking in the Republic of Macedonia, causes for current level of development and to provide further recommendation for forthcoming positive changes.

Research results demonstrate that the growth of online and mobile banking on the global level has vast influence on the reshaping the market and competition in traditional banking. Moreover the outcomes indicate that the main channels for distribution of bank product are branch and the internet, yet mobile channel and its influence is undeniable. It is important to emphasize that the banks invested mainly in digitalisation of basic bank operations, yet the complex transaction digitalisation globally is nonetheless in the development phase.

Republic of Macedonia experiences relatively low level of readiness for significant development of the digital banking which is limited on basic bank transactions. Such condition can be explained by the clients mistrust in e-bank services, lack of information for the digitalization's benefits, resistance for changing habits, etc. The research has been completed by utilization of

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the following methods: analysis, synthesis, induction-deduction method, statistical, logical, comparative method. Their exploitation is determined by the specificity of the research theme.

Key words: digitalization, technological change, innovation, banking sector, internet and mobile banking, banking operations

JEL classification: G21, L86, O14, O33

Introduction

In the recent 3 decades, digital revolution placed significant modifications in all parts of economy, including the bank industry. As a driving force of efficiency enhancement the increase of investments in technology was simply trailed by banking products innovation. Banks begin to cooperate with the IT manufactures in order to encourage each other for new products and services. The increasing complexity of electronic banking products has led to the expansion of customers; however satisfying more sophisticated customers' needs forced a constant demand for new technologies.

ICT, as the most important factor for the prospect banking industry empowers banks to generate complex products, to have enhanced market position and to grasp expanded markets. The bank activities familiar for bank branches now can happen anywhere in the world through any delivery channel such as ATMs, telephones, personal computers. Moreover, banking consumers' needs and demands have changed considerably over the last 30 years. Today they require more personalised banking products and services and presume to entree such services at any time and any place. It is expected that since the focus of development of new products and services are always the clients, the digital banking will give priority to the needs of customers before product creation.

Having in mind that the stance in bank digitalization in each country differs, the paper aims to estimate the level of digitalisation of banking sector in RM, as well as reasons and factors determining the actual state of digital banking. In order to achieve the aim, the paper is structured as follows, first part elaborates the changes in demand and supply as result of financial digitalisation and then the digitalization in the banking sector on global level is analysed in order to compare with the stance in the Republic of Macedonia. Such approach secures the solid base for determining the measures and further steps for increasing the level of digitalization of the banking sector.

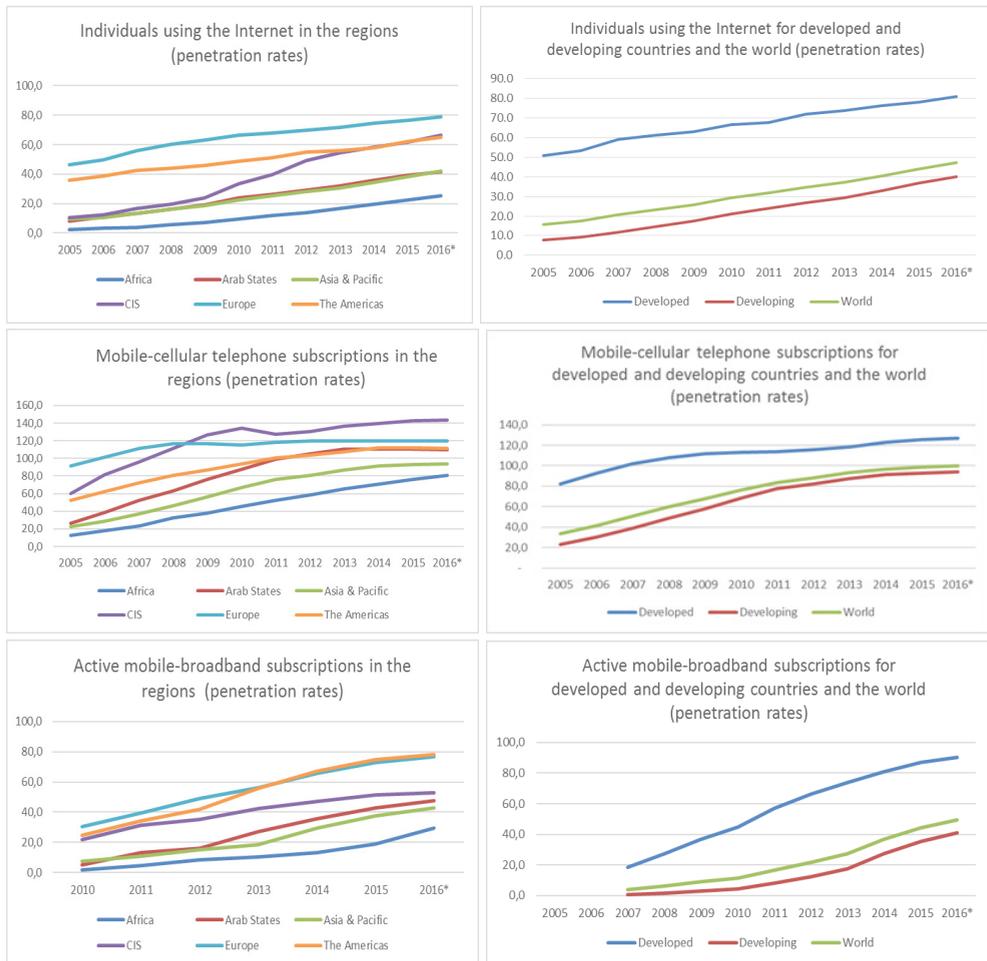
1. CHANGES IN SUPPLY AND DEMAND DUE TO THE FINANCIAL DIGITALIZATION

New tendencies in the banking sector where clients as service users and their participation in decision making are in the center of the bank focus, and where clients decide solely for money management and transactions without moving to the bank branches, means conveying from traditional banking and increased focus on the on-line activities. Such tendencies inevitably lead to the consumers changing habits and the new competitive environment.

1.1. Reshaping the customer habits and experience: Changes on the demand side

The new trends of heavily reliance on the internet and mobile phones (Figures 1) have shaped an intense transformation of the customers' habits and preferences. Hence, the bank clients are becoming increasingly used to interacting via digital media, to conduct their transactions with the authorities, to shop online or employ new services. A principal role in such transformation of the bank client's behavior has been made by the infiltration of next-generation mobile devices. Such devices are mostly utilized in the developed economies, where mobile broadband networks (3G and 4G) are accessible at competitive prices.

Figure 1. Number of Individuals using the internet, mobile phone subscriptions and mobile broadband subscription (per 100 inhabitants)



Source: Prepared based on the data from <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

The internet is quite useful for the clients since it is characterized as a vast platform for consumers. Namely, using internet enables the clients to evaluate and compare goods and services as well as to distribute their experiences with other customers. Such tendencies are quite impressive in sectors such as insurance, telecommunications and financial services. Moreover comparing the price for products and services, clients can easily decide for the more competitive options. Such approach gives better ground for the clients to make adequate decisions and to accelerate the smoother

functioning of market forces for the clients' benefit. The extreme dynamic way of life engaged clients to get used for the financial services that are available 24/7. Moreover clients anticipate user-friendly applications which do not require much time and effort for its implementation and application.

The crucial factor for accelerating the development in digital transformation process has been the introduction of the mobile devices. Figure 1 clearly indicates the vast rate of utilization of mobile phones in the world as a solid base for the new mobile app developments. In developing countries financial services slowly but steady are undertaken by the mobile payments whereas mobile phone ownership significantly rises. With introduction on mobile devices at least the customers expect at the beginning to be able to check their balance and make transfers through their phones. Moreover, with Smartphone penetration, mobile wallets may become the principal method for customers' access to their bank accounts. In the more progressive level, they could offer an access to the multiple accounts across multiple banks. The mobile wallets will also transform cash management in the markets. If mobile wallets with biometric security become the norm, the cost of obtaining banking services in emerging markets will be dramatically reduced, hence their acceptance by the clients will rise enormously.

Furthermore the customers' expectations have moved widely and now they expect to interact with their bank 24/7 and wherever they want, and to be able to shift without any effort between the banks distribution channels. As customers are seeking for the global experience we expect in the next decade to see banks to increase their investment in social media since they are becoming mutual route to cooperate with banks.

1.2. A new competitive field: changes and competition in the supply side

In the recent years the start-ups with a high technological leaning overtook the crucial role in the process of digitalization. They have spurt into the financial sector and connect the division gap between the new demands of customers and the traditional banking services by the banks and it the same time they represent one of the major competitors to the banks. In the period of dynamic changes, traditional banks are excessively burdened by the numerous regulative and international regulations; limitations of bank industry regulation and other activities, hence the banks need support by companies with technologies knowledge. The new companies, known as

FinTech companies, act as bank supporters specialized in their different components, such as payments, foreign exchange, lending, access to capital markets, financial advisory services, etc and they are highly flexible and incline to have a low-cost structure.

Such FinTech companies which base their presence basically on electronic and mobile presence have rapid growth in the last few years. According to the estimation, for FinTech companies in the last 5 years have spent more than 25 billion dollars (where as in 2014 the investment triples on yearly base, reaching 12.2 billion dollars). At the moment 5000-6000 Fin Tech companies operate on the market.¹

Visible example for such FinTech companies are Apple, Google, Amazon or Alibaba which have also penetrated into the financial sector, offering services in the areas of payments and lending as addition to their core business.² The services offered by such companies are Google Wallet in the area of payment transactions, Fundbox in the area of microfinance; Square as platform for credit cards; Apple Pay as application for contactless payment on Apple phones. However, despite the speedy development, FinTech encompass less than 2% of the market.³

FinTech companies represent new entrants for offering the financial services similar to transactions in the traditional banking. However, these companies are not subject to the strong degree of regulatory pressure as banks regarding the Basel Capital Standards, limits for liquidity, reserve requirement, allowances for loan provision, identifying customers, monitoring, reporting transactions etc. Generally such companies are based in the countries in which regulation is more lax or simply non-existent, even though their activities and operation are spread globally. This situation is less favorable for the consumers, who are completely unaware of the regulatory differences between providers, nevertheless attracted by a better user experience, and easier access to the services, are not conscious for the exposed risk.

Obviously banks faced with such competition from FinTech companies react to new competitive conditions by expansion the range of digital channels and products in the areas where they have no physical presence for obtaining enhanced position in the competitive environment. The other perspective

¹ Accenture, *The Boom in Global Fintech Investment*. Retrieved from: <http://www.tobyallen.com/wp-content/uploads/2014/07/Boom-in-Global-Fintech-Investment.pdf>, 2014

² Carmen Cuesta, Macarena Ruesta, David Tuesta, Pablo Urbiola, *The digital transformation of the banking industry*, BBVA, Research, Digital Economy Watch, 16 July 2015, p. 3

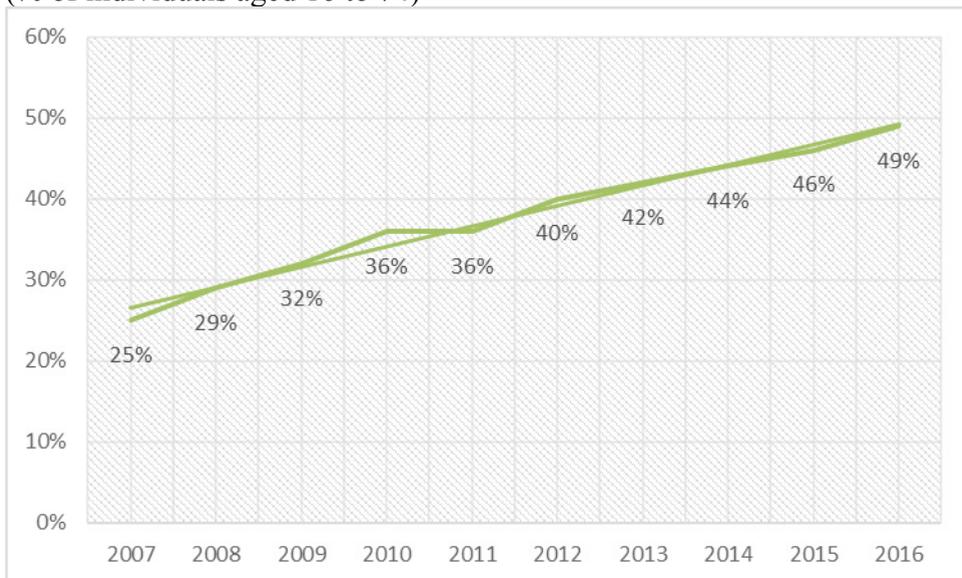
³ *The Economist*, 2015, <http://www.economist.com>

prospective products that banks plan to develop in the future are E-wallet solutions which are in the initial state of development, developed by 27% of the banks globally as well as tools for personal financial management such as automatic costs categorization.⁴ Furthermore the banks are developing near-field (NFC) technology payment solutions, or applications to transfer money between individuals (P2P) similar to those offered by the competition of the new FinTech companies.⁵

2. DIGITIZATION OF THE BANKING SECTOR WORLDWIDE

Banking sector on the global level attempt to keep up with the contemporary technological trends, trends for higher internet accessibility by the clients, speedy engagement of the smart phones and consequently changed consumer client's culture. In the last ten years, there is considerable trend of growing access of clients to the e-banking within the European Union, clearly demonstrated in the Figure 2.

Figure 2. Individuals using the internet for internet banking (% of individuals aged 16 to 74)



Source: Prepared on the database from <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tin00099>

⁴ AT Kearney & Efma, Banking in a Digital World, 2013, p. 3

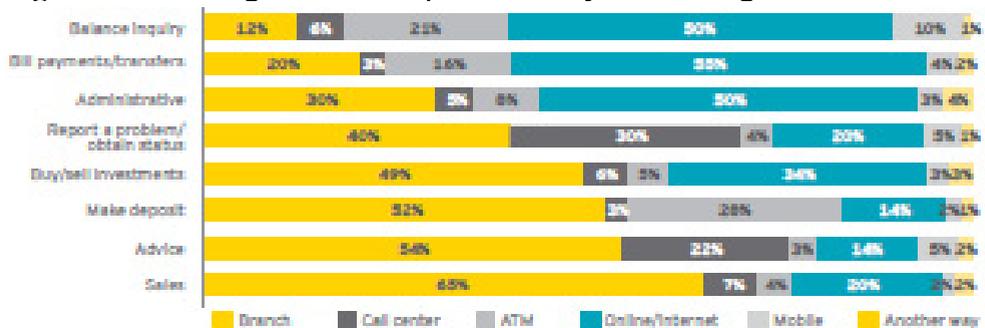
⁵ Op. Cit., Carmen Cuesta, Macarena Ruesta, David Tuesta, Pablo Urbiola, The digital transformation of the banking industry, ..., p. 5

The growing trend is confirmed by the data for OECD countries, where more than half of Internet users are users of online banking, whereas mobile banking is catching up. In the year 2013, 60% of Internet users in OECD countries used online banking, whereas up from 42% in the year 2011 and 31% in the year 2007.⁶ However, banks are not considered rapidly aggressive in the area of technological innovations. Only 20-40% of total banks activities within the European banks is digitalized, yet 90% of the bank’s investment in the digital development comprises less than 0.5% from total costs.⁷ Their investment in the banks were mainly restricted on improving existing bank services through increased accessibility and added value for the consumers, without imposing excessive effort for developing new innovative products.⁸

Banks mainly invested into digitalization of the basic banking activities such as opening the bank accounts, electronic submission of the debit cards and approval of the consumer credits, i.e. services that comprise 92% of the bank offer worldwide, or 79% of the European banks. Nonetheless the more complex banks activities such as bank accounts closure, submitting application for mortgage credit and mobile banking, are still in the initial phase of digitalization, applicable for the 50% of European banks.⁹

Additional confirmation for this position is delivered by EY Global Consumer Banking Survey 2014. According to the data, Internet represent the favourite banking method for 55% of clients for paying bills or making transfer and for 50% for balance inquiry and administrative affairs, whereas branch banking is preferred for deposits, advices and sales (Figure 3).

Figure 3. Percentage of channel preference by task among all customers



Source: EY Global Consumer Banking Survey 2014, p. 14

⁶ OECD, Digital Economy Outlook, 2015, p. 55-56.

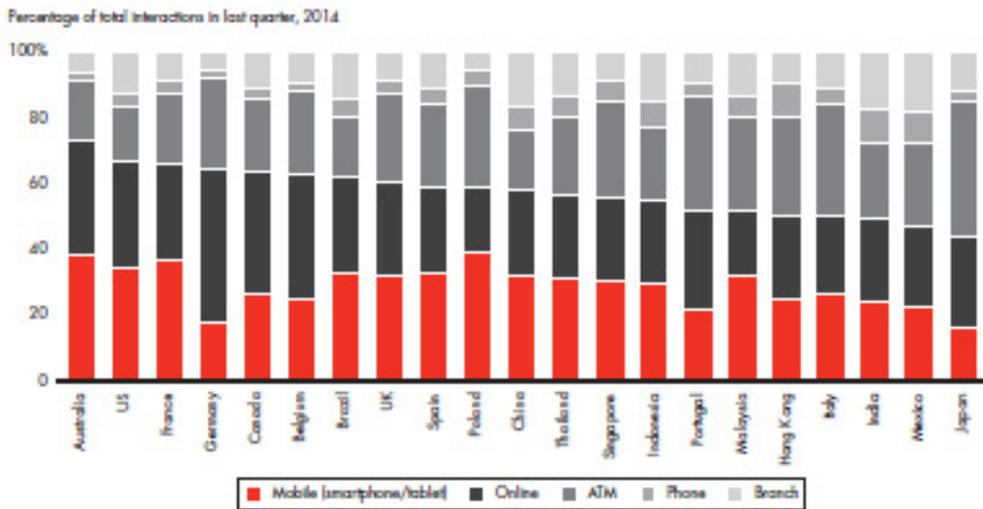
⁷ McKensey и EFMA, DIGITAL TRANSFORMATION IN 10 BUILDING BLOCKS, 2012, p. 6.

⁸ AT Kearney & Efma, Banking in a digital world, 2013, p. 5.

⁹ Roland Berger, Executive Retail Banking Survey: Digital Transformation, 2015.

According to the above presented data bank branch and the internet still remain the most important channels, yet the growing importance of the mobile channel is undisputable due to the rise of software solutions. Data clearly demonstrate that the digital channels were preferred for the majority of interactions, whereas mobile banking has overtaken online banking in many markets (Figure 4).

Figure 4. Percentage of channel preference in different countries



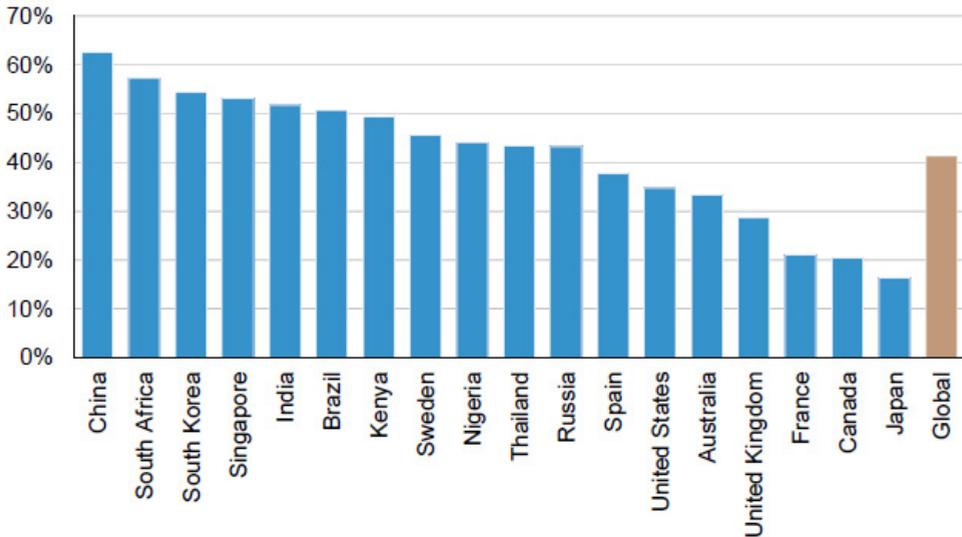
Source: Bain/Research Now NPS surveys, 2014

The mobile dissemination is quite developed high in certain countries such as the U.S., France, the U.K. or Germany, yet one must admit that the mobile banking is moderately new in vast number of countries markets and its usage is fairly low in the world.¹⁰ Penetration of mobile banking from the perspective of percent of banks offering such service in worldwide is estimated around 50%. Higher lever is recorded in China, South Africa and Singapore around 50-60%, while as in Europe is lower with around 38%.¹¹

¹⁰ Gupta, S., The Mobile Banking and Payment Revolution, European Financial Review, February-March, 2013, 3-6.

¹¹ KPMG, Mobile Banking, 2015, p. 11.

Figure 5. Mobile banking penetration by country



Source: KPMG, Mobile Banking, 2015, p. 11

If we analyse the population from the point of view of age structure, results demonstrate severe use of new technologies, particularly in area of digital banking by the youngest generation. According to Nava et al. more than 70% of the youngest population in the United States have used mobile banking services in the last 12 months, compared to only 40% for the rest of the adult population, added to which around 94% of those in the youngest generation are active users of online banking.¹²

Such resistance in new trends acceptance can be explained by several factors:¹³

- Deficiency of clear strategy for digitalization;
- Inherited organizational culture promoting resistance toward;
- Outdated IT infrastructure;
- Obstacles to recruit high ranked IT experts and
- Regulatory demands and supervision aimed at securing healthy and stable banking sector within the traditional models, yet they limit the new technologies implementation due to the severe risk management policies and prudent regulation for capital adequacy according to the new Basel standard III.

¹² Nava, M., Karp, N., & Nash-Stacey, B., The Millennials Paradox. US Banking Watch. BBVA Research, 2014 Retrieved from: https://www.bbva.com/wp-content/uploads/2014/12/141216_US_BW_BankMillennials_esp.pdf

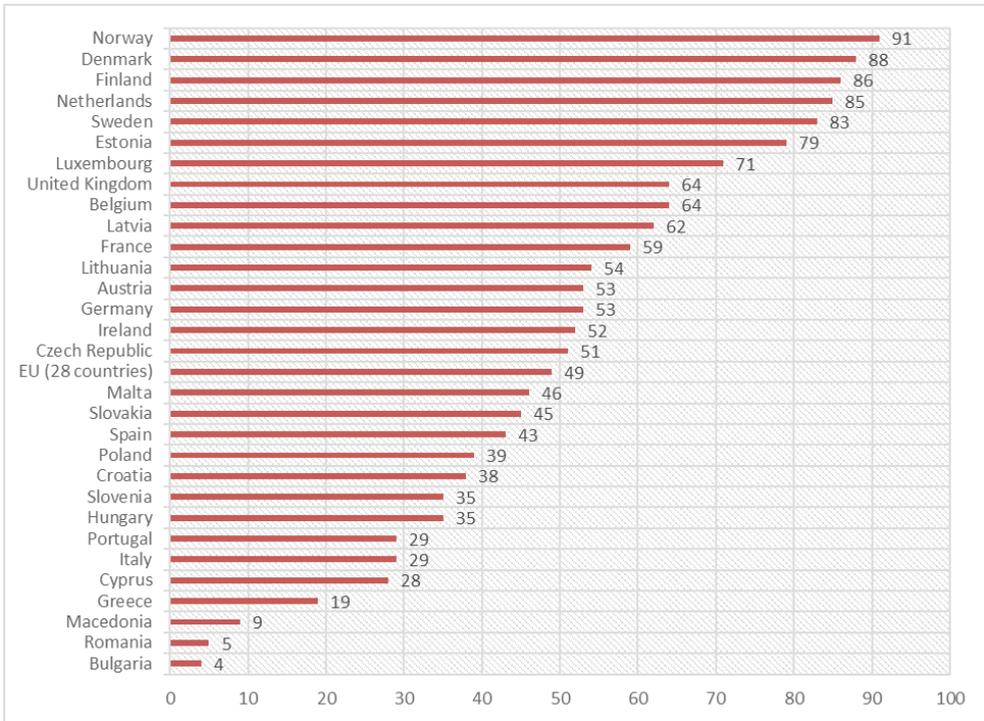
¹³ The Economist, 2015, <http://www.economist.com>

Furthermore, the factors that support the role of traditional banks in their attempt to increase the level of digitalization in the banking sector are: first, general resistance toward changes, which require sufficient time for customers to change their habits and to be open for the possibilities offered by the technologies advantages. As second and more important factor is the clients' confidence which is unfeasible to be programmed, since it represents a long term process, yet it can be easily destroyed for short time. Banks in the previous periods managed to secure good reputation as healthy and credible institutions for creating solid base for stabile relationship with the clients. And finally the third, it is indispensable the contribution of the strict bank regulation focused on the risk management. From other side, when we analyzed the bank regulation and process of digitalization, one must admit that the FinTech companies operate in so cold "grey zone" and they should build their credentials in the future on the basic of security of their own IT infrastructure.

3. DIGITAL BANKING IN THE REPUBLIC OF MACEDONIA

Although the Republic of Macedonia actively explores the possibilities of digitalization it still demonstrates the low level of readiness for more significant development in the area of digital banking. Such statement can be conclude by the data illustrating that the percent of the population using internet for e-banking in the age frame from 16 to 74 years old in the year 2016 for the Republic of Macedonia is only 9% holding one of the lowest position in the scale. Such low percent is fairly below the average for EU-28 of 49%.

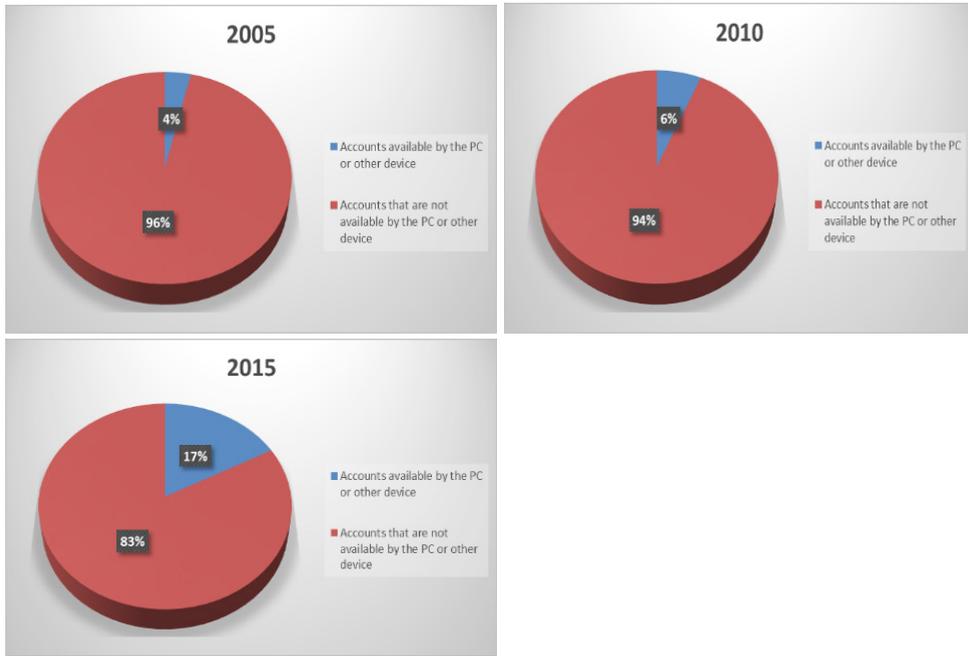
Figure 6. Individuals using the internet for internet banking
(% of individuals aged 16 to 74)



Source: Prepared on the base of the data from <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tin00099>

Electronic banking shifts toward regular bank products in majority of domestic banks, nonetheless it is still limited to basic bank transactions such as payment transactions, condition of the statement and transactions regarding deposit and credit products. Low level of penetration of digital banking within the banking operations in the Republic of Macedonia can be elaborated by the demand side factors such as low level of clients interest indicated by the minor percent of accounts with e-banking, despite their continuous growing trend demonstrated in the Figure 7.

Figure 7. Accounts available by the PC or other devise in the year 2005, 2010 and 2015



Source: Prepared on the base of the data from <http://www.nbrm.mk/default.asp?ItemID=63CD38745C00FC4B98C9570D46259F9C>

However, major parts of the accounts are used only for checking the condition of the account whereas the numbers of accounts for payment transactions are far underneath (Figure 8).

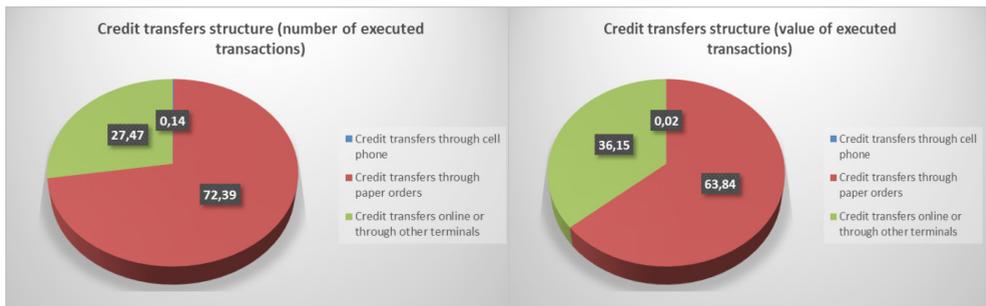
Figure 8. Accounts for checking statement and payment transactions in the year 2010 and 2015



Source: Prepared on the base of the data from <http://www.nbrm.mk/default.asp?ItemID=63CD38745C00FC4B98C9570D46259F9C>

The structure of the credit transfer is another major indicator for the fact that digital banking is in the initial phase of development. Namely, data indicate that the major part of the credit transfer in the banking sector of the Republic of Macedonia is in the paper form. The number of credit transfer within the e-banking is relatively low, particularly in case of utilizing mobile phones as indicated in the Figure 9.

Figure 9. Credit transfers structure in the year 2015



Source: Prepared on the base of the data from <http://www.nbrm.mk/default.asp?ItemID=63CD38745C00FC4B98C9570D46259F9C>

Data clearly indicate that in the area of mobile banking, banks in the Republic of Macedonia are developing mobile applications gradually, yet they are still in the initial stage. Such condition suggests that in order to secure visible penetration of the digitalization in the banking sector beside the readiness by the domestic banks, it is indispensable to plan the dynamics for technological solution acceptance by the population.

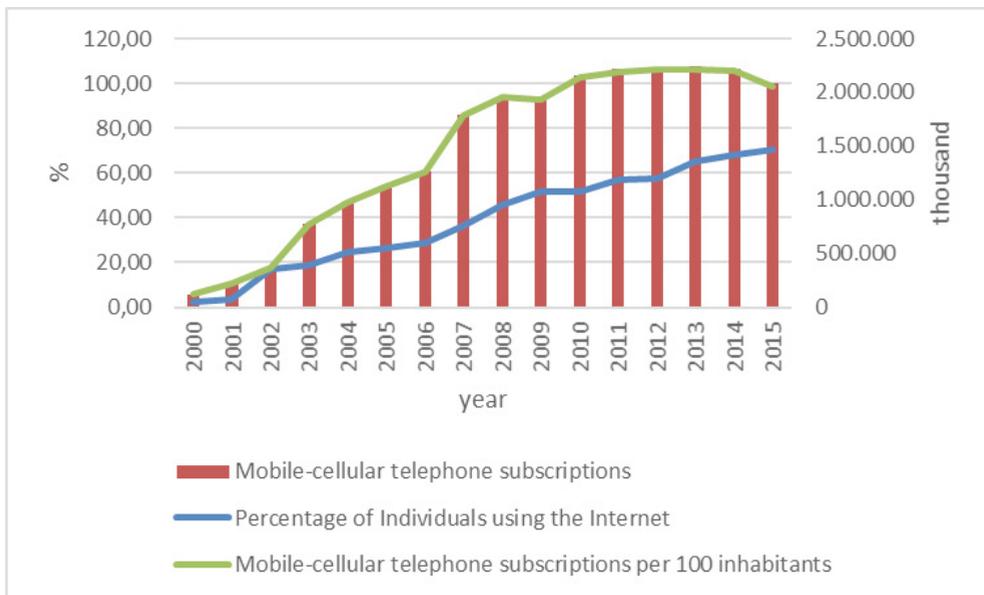
As leading factors explaining nonsufficient digitalization of the financial services in the Republic of Macedonia can be noted:

- Population's insecurity and mistrust in the e-banking services, principally in case of matured population;
- Lack of information for the benefits such as saving time, financial costs etc., demonstrating the urgent need for education by the banks;
- Resistance by the population for changing habits, clearly seen by the high percent of utilization of the bank branches for cash withdrawn and cash deposits;
- Lack of competition in the domestic economy, having in mind the absence of the FinTech and low level of presence of other non-banking institutions which would be relevant competitors to the banks on the supply side.

However we need to reveal the positive trends toward digitalization on the financial services such as:

- The trend for increasing internet utilization in the country. Namely, data from the State Statistical Office indicate that 70% of the population had access to the broadband¹⁴ as well as the percent of the population using internet is also 70.4% (Figure 10).
- High degree of financial inclusion (access to bank accounts);
- High level of coverage with mobile phones (over 2 millions SIM cards in the circulation), out of them 57% with internet (Figure 10);
- Gradually penetration of the non-banking institutions and increasing the level of competition (Telecom, PayNet, PayPal).

Figure 10. Mobile-cellular telephone subscriptions and individuals using the Internet



Source: Prepared on the base of the data from <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

¹⁴ http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat_InfOpstestvo_DomakinstvaPoedinci/175_InfOpst_Mk_02DomTip_mk.px/table/tableViewLayout2/?rxid=6c35f815-938d-406a-8915-49e915fa2b85

Presented data provide solid base for further projections that the level of digitalization in the banking sector of the Republic of Macedonia will increase. However it mostly depends of concrete measures that should be taken. The most significant should be: increasing the security and confidence in the banking services among population; raising the level of education for the benefits of this type of banking in order to secure higher degree of information; gradually changing the client's habits as well as accelerating banking competition by attracting other institutions for offering digital banking products.

Conclusion

Intensification of online and mobile banking transformed the financial markets and the competition in traditional banking worldwide. Though the bank branches and the internet still represent the most important channels, the growing importance of the mobile channel is indisputable. The mobile penetration is high in certain countries such as the U.S., France, the U.K. or Germany, however mobile banking is still comparatively new in many markets over the world.

Mobile banking penetration worldwide is around 50%, whereas higher level of penetration falls on China, South Africa and Singapore with 50-60%. Europe is behind with level around 38%. Data demonstrate that the banks invested predominantly into the basic bank operations such as payment and transfer transactions, account review and administrative activities, whereas digitalization in the area of complex banking activities is still in the initial phase. On another side, bank branches are still used by the bank clients for the services such as bank counseling, for deposits and credits.

Republic of Macedonia is one of the countries with relatively low level of readiness for more significant development of the digital banking. Despite the wide utilization of the internet, high degree of financial inclusion as well as high degree of mobile phone, yet e-banking is still limited to basic bank transactions. Such stance can be elaborated by the mistrust in the e-banking services by the bank clients; lack of information for its benefits; resistance for changing habits, etc. However, data provide future anticipation that the level of the digitalization in the banking sector in the Republic of Macedonia in the future can be increased. It can be achieved by the increased security and confidence in the banking products by the clients; clients education for these type of service; ongoing change in the client's behavior and habits and initiating the bank competition.

References

1. Accenture, *The Boom in Global Fintech Investment*. Retrieved from: <http://www.tobyallen.com/wp-content/uploads/2014/07/Boom-in-Global-Fintech-Investment.pdf>, 2014
2. AT&Kearney & Efma, *Banking in a digital world*, 2013
3. Bain/Research Now NPS surveys, 2014
4. Carmen Cuesta, Macarena Ruesta, David Tuesta, Pablo Urbiola, *The digital transformation of the banking industry*, BBVA, Research, Digital Economy Watch, 16 July 2015
5. EY Global Consumer Banking Survey 2014
6. Gupta, S., *The Mobile Banking and Payment Revolution*, European Financial Review, February-March, 2013
7. KPMG, *Mobile Banking*, 2015
8. McKensey и Efma, *Digital transformation in 10 building blocks*, 2012
9. Nava, M., Karp, N., & Nash-Stacey, B., *The Millennials Paradox*. US Banking Watch. BBVA Research, 2014 Retrieved from: https://www.bbva.com/wp-content/uploads/2014/12/141216_US_BW_BankMillennials_esp.pdf
10. OECD, *Digital Economy Outlook*, 2015
11. Roland Berger, *Executive Retail Banking Survey: Digital Transformation*, 2015
12. The Economist, 2015, <http://www.economist.com>
13. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>
14. <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tin00099>
15. <http://www.nbrm.mk/default.asp?ItemID=63CD38745C00FC4B98C9570D46259F9C>
16. http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__InfOpstestvo__DomakinstvaPoedinci/175_InfOpst_Mk_02DomTip_mk.px/table/tableViewLayout2/?rxid=6c35f815-938d-406a-8915-49e915fa2b85

HRISTINA SERAFIMOVSKA*
VASIL POPOVSKI **

**THE MANAGEMENT OF HUMAN RESOURCES AS A KEY
IMPERATIVE FOR INCREASING THE INNOVATION OF
ENTERPRISES IN THE REPUBLIC OF MACEDONIA**

Abstract

This paper is with a primary objective to explore the connection of human resource management with innovation in enterprises in the Republic of Macedonia. Considering the significance of human resources as a key and indispensable organizational resource, and the effect they have on the performances of enterprises in the form of efficiency and effectiveness depending on the way they are managed, the question arises as how much these resources are strategically used in the Republic of Macedonia. The research additionally treats innovation of Macedonian companies in function of emphasizing the possibility, as well as determining the situation in Macedonian enterprises in term of the question how much Macedonian managers apply it, but are also aware of the benefits of using and developing strategic human resource management in order to achieve the specific objectives of the enterprise. The survey covers innovative companies in order to determine how much of this innovation is controlled and deliberately caused by strategic human resource management. The results of this research should serve to create recommendations on what kind of interventions are needed to improve the performance of enterprises in the Republic of Macedonia when it comes to human resource management.

Key words: innovation, intrapreneurship,
strategic human resource management, human resources.

JEL Classification: O, O15, O3, O31, O310

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Introduction:

When we talk about resources in science there is a generally accepted claim that man is a key resource for many reasons. He appears as a carrier of the total processes of creating economic values, he is difficult to imitate, he sets goals and with his help and recruiting of other necessary types of resources they are achieved. For this reason human resources management must be organized, designed and directed towards the realization of the pre-set i.e. strategic goals of enterprises.

Regarding the issue of the competitive advantage of the enterprises, how it is acquired, what are its sources and so on, among the various claims is the claim that human resources are the ones that lead to a competitive advantage of enterprises. The essence of this claim lies in the specific practices of human resource management that are used, which besides being able to contribute to building the competitive advantage of enterprises, they also lead towards its sustainability in the longer term. By selecting human resource practices, system, which is formed, is complex, composed of closely related interdependent elements and, in that way, he is difficult to imitate. In other words, its uniqueness stems from a combination of applied practices (at the expense of single practices) and the impact of human resources (as a unique component) to which these practices apply.¹

1. HR PRECONDITIONS FOR BETTER PERFORMANCE OF THE ENTERPRISES

The performance of enterprises is a consequence of the overall functioning of the enterprise, which is a complex system of elements, more or less predictable. The resources of any type are a necessary prerequisite for fulfilling any objective expressed through the performance of operations. In this particular case, we will focus on human resources as a key and susceptible of controlling and modelling in the desired direction.

The link between human resource management and enterprise performance has been the subject of research of many scientists and such cause-and-effect relationship is unquestionable.² Regarding this connection,

¹ **Machado, C., Melo, P.**, (2014), *Effective Human Resources Management in small and Medium Enterprises: Global Perspectives*, Business Science Reference, Hershey, p 226.

² **Armstrong, M.**, (2012) 12th Edition, *Armstrong's Handbook of Human Resource Management practice*, Kogan page Limited, p. 51

the question of how it comes to converting the applied human resource management into concrete results is also opened and in this context is the well-known phenomenon of a Black box. Perhaps science does not have precise data on exactly how it comes to converting the mentioned elements, but what it can be clearly detected are the applied practices such as “input” and the organizational performance such as “output”, or detected product initiated by their application.³

The sequence is as follows: the set human resource management policies shape the practices that will be applied, and the applied practices influence the formation of employees’ attitudes and have a role in their behaviour, which is further reflected on the performance of the organization. Practices, in essence, represent the link that connects, that is, the medium through which human resource management is reflected and it creates the performance of the enterprise.⁴

However, what is highlighted as an important detail is the attention that should be paid on the implementation of the established practices. It is not enough for them just to be selected and set, their successful implementation is required.

Also, achieving successful performances opens up another issue when the HRM practices are in the focus. That is the question of alignment, that is, integration. A system consisting of human resource practices selected for use needs to be complied both with the wider organizational context, and within the framework of applied practices there should be consistency and compatibility. The consistency and compatibility of the selected practices is known as horizontal fit, and it ensures the organization’s efficiency, while the compliance and support provided by human resource strategies of the business strategy, i.e. vertical fit leads to organizational effectiveness.⁵

So what makes the performances of enterprises different and better than each other is the choice and application of different strategies that draw and applying appropriate human resource practices that would allow them to be successful, and that, on the other hand, differ from organization to organization.

³ **Ibid**, p.52

⁴ **Ibid**, p.50.

⁵ **Burton, R.M., Eriksen, B., Hakonsson, D.D., Snow, Ch. C.**, (2006), *Organization Design: The Evolving State of the Art*, Springer Science + Business Media, LLC, p. 87.

2. FROM HUMAN RESOURCE MANAGEMENT TO INNOVATION IN MACEDONIAN COMPANIES

Numerous studies have so far confirmed the positive impact of human resource management on the performance of enterprises. The manner of selection of practices in addition to guaranteeing successful performance, it can simultaneously deliver concrete results in relation to the specific set objectives. In this case, we will keep innovation as the ultimate goal of enterprises.

As we have already mentioned, vertical integration reflects the connection between the business strategy of the organization, in this case- and innovation strategy, and the human resource management policies and practices that apply to it. Such integration is needed and useful because of the effectiveness and efficiency deriving from it, and is due to the connection of the business objectives with those set at the individual level. This relation is reinforced by the proper behaviour in the organization that is directed and aligned with the set business objectives and as such appears as their primary supporter. ⁶

In addition to the claim that there is a positive relationship between innovation and human resource management, there are numerous research results. In this case, we will set out as an example the results of the research conducted in Denmark on 684 Danish manufacturing companies and 1216 private companies in the service sector. As a result of the selected management practices, these researches mark results on the creation of innovation in the part of the product, but also in the processes. Also, a research conducted in Belgium on 22 production companies reveals specific human resource management practices that as a consequence of their application have innovations in the area of products and manufacturing technology. It is about investing in trainings, teamwork, evaluation process, etc. ⁷

Schuler and Jackson⁸ emphasise the behavioural approach towards the strategic human resource management according to which the connection of the organizational strategy with the appropriate way of employee behaviour

⁶ **Bearswell, J., Claydon, T.**, (2007) 5th Edition, *Human Resource Management: A Contemporary Approach*, Pearson Education Limited, Harlow, p. 44.

⁷ **Warner, M.**, (2013), *Whither Chinese HRM?: Paradigms, Models and Theories*, Taylor & Francis, p. 85.

⁸ **Truss, C., Mankin, D., Kelliher, C.**, (2012), *Strategic Human Resource Management*, Oxford University Press, New York, p. 96

is essential. Human resource practices in this case should be related to the organization's strategic focus - the business strategy, and in that way to encourage employee behaviour that will be in line with the organization's overall strategic orientation. In this context is the innovation strategy that requires creative behaviour, risk taking, tolerance of uncertainty, mutual cooperation, etc. Such behaviour may be prompted with appropriate human resource techniques such as: tolerance of failure, selection of staff with strong skills, guaranteed discretion, and so on.⁹ However, what is the situation on this issue in the Republic of Macedonia?

3. ENTERPRISES IN THE REPUBLIC OF MACEDONIA, THEIR INNOVATION AND THE SITUATION WITH THE HUMAN RESOURCES MANAGEMENT *(results of the conducted research)*

Exactly with this intent, to determine how much practice in the Republic of Macedonia points to the fact that the used human resource management practices correspond to the established business strategy of innovation and cause an appropriate type of behaviour among the employees in order to achieve the set objective, this research is conducted in 31 companies in the Republic of Macedonia.

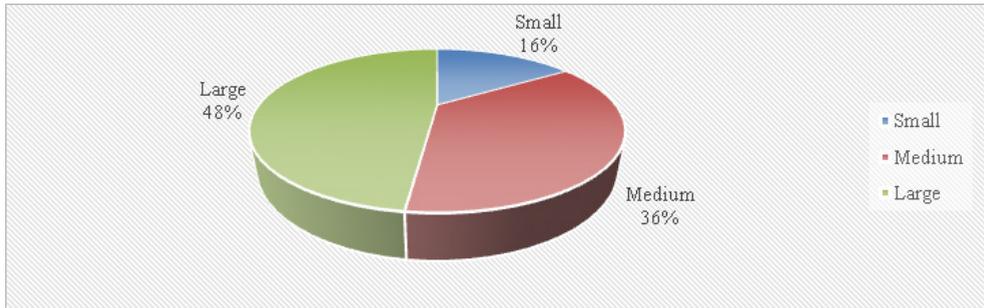
Regarding the structure of the selected sample on which the research is conducted, we will focus on several characteristics: the size of the enterprise, the structure of the capital and the innovation.

Graph No.1 shows that the small enterprises (up to 50 employees) have the smallest share in the analysed sample, while the largest enterprises with over 250 employees have the largest share. No microenterprises are included in the survey.

Such nature of the sample appears to be appropriate for researching the intrapreneurship characteristic for larger enterprises, where it is clearer to note the way in which human resources are managed and the techniques used to foster the creative spirit of employees and to provide greater innovation of the enterprise.

⁹ *Ibid*, p. 96

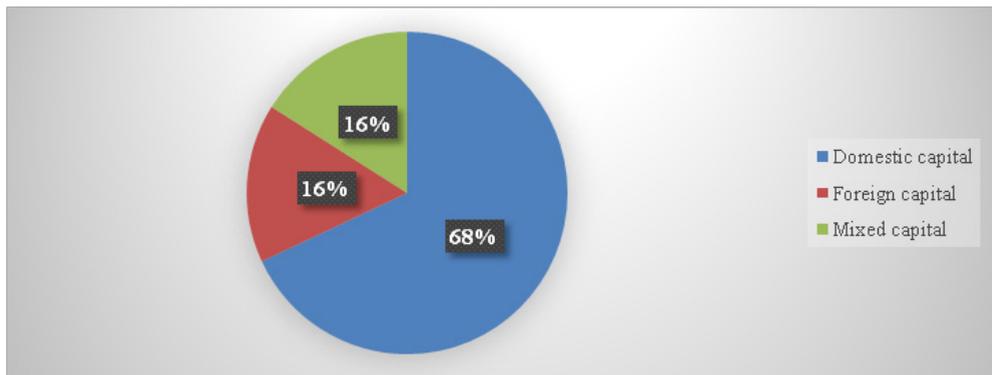
Chart 1: Size of surveyed enterprises



Source: Own survey

As for ownership, Chart No. 2 gives us insights into the ownership structure of the surveyed companies. From what is shown, it can be concluded that companies with domestic capital have a dominant share. Because of the large percentage of surveyed enterprises with exclusively domestic capital, the conclusions that will be adopted will reflect on the situation typical for Macedonian enterprises.

Chart 2: Ownership of the capital of the surveyed enterprises

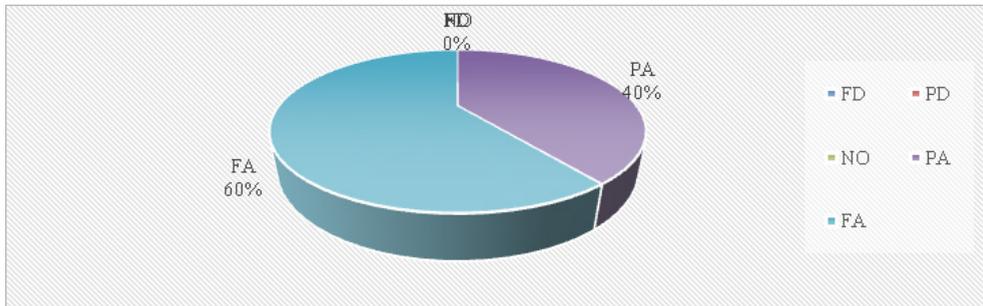


Source: Own survey

Judging by their own perception regarding the innovation in operations, Chart No.3 shows that these are enterprises for which the innovation feature is common, which differ only in the degree of innovation, so some of the enterprises were considered partially and others as highly innovative.

As such, the surveyed enterprises represent a solid basis for examining the set thesis, which refers to the connection of the innovation with the applied practices of human research management in the companies in the Republic in Macedonia.

Chart 3: Perception of surveyed enterprises for their own innovation



Source: Own survey ¹⁰

For the needs of the research, a list of human resource management practices was prepared, as a specific set offered and explored in this paper. The list is created on the basis of already scientifically validated practices in this field, that is, practices that encourage innovative behaviour¹¹, and it is extended and enriched with practices that guarantee results in different situations (according to the best practices approach, i.e. universal perspective)¹².

It is about choosing the following human resource management practices:

1. Recruiting and selecting innovative individuals;
2. Workplace design that stimulates interaction and coordination between individuals as well as between groups within the organization;
3. Encouraging a different thinking of employees, working together on problems and tasks, respecting different ideas;
4. Tolerance of failure and encouragement of employees to continue their efforts;
5. Developed performance assessment system that stimulates innovation;
6. A system of compensation that emphasizes internal capital and includes multiple selection components (salaries, bonuses, shares, etc.) and continuously rewards the achieved success;

¹⁰ **Meaning:** FD – fully disagree, PD – partially disagree, NO – have no opinion, PA – partially agree and FA – fully agree

¹¹ **Mumford, M.D., Hunter, S.T, Bedell – Avers, E.K., (2008), *Multi-level Issues in Creativity and Innovation*, Elsevier Ltd., p. 335.**

¹² **Paauwe, J. (2004), *HRM and Performance: Achieving Long-term Viability*, Oxford University Press Inc., New York, p. 27.**

7. Enhancing the knowledge and skills of the employees through continuous investments in trainings, seminars and other forms of their upgrading;
8. Providing the conditions and necessary preconditions in which employees could make production discoveries;
9. Extensive career development opportunities with the opportunity to acquire a wide range of skills.

As far as innovation is concerned, it is addressed by six questions/ attitudes that represent the perceptions of respondents for their enterprises on many grounds. Innovation as a dependent variable was measured according to the perception of respondents in relation to several assumed measured that provide a broad assessment of the set issues from several aspects. For example, profitability is in function of a real indicator for the success of the company, the picture of the economic results that is achieved on the basis of the realized innovation. While other questions give us information about the competitive position of the innovation driven enterprise in relation to existing competitors, potential competitors, possible substitutes, customer satisfaction etc, according to the five forces of competence proposed by Michael Porter in his model.

By bringing into correlation to the set variables, a confirmation or rejection of the hypothetical framework will be made and a conclusion will be drawn on the impact and situations on this issue in the enterprises in the Republic of Macedonia.

The research techniques used in this research are the technique of polling and the technique of content analysis. In the part of the survey, the questionnaire that is used is created following the example of the Likert scale with options from 1 (I do not agree) to 5 (I fully agree).

From a methodological point of view, in an effort to establish the impact of human resource management practices on the development of enterprise innovation in the Republic of Macedonia, the research is primarily based on analytical descriptive methodology, which aims to select relevant knowledge that will respond the essential questions posed in the research. The inductive and deductive locking procedure was used in the conclusion section.

In accordance with the basic objective of this paper to determine the general situation in Macedonian enterprises on the issue of creating innovation based on strategically developed human resource management, the research

was conducted on the field through polling of selected enterprises in the Republic of Macedonia, whose structure and characteristics we have already described.

From the conducted research and processing of the collected data, results were obtained based on which the relevant conclusion can be derived for the hypothesis as follows:

SET HYPOTHESIS: *The choice of human resource management practices that encourage and strengthen individual innovative capabilities, influences innovation as a sustainable competitive advantage for enterprises.*

Table 1: Results from χ^2 - test

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	208,949 ^a	180	,069
Likelihood Ratio	111,175	180	1,000
Linear-by-Linear Association	13,026	1	,000
N of Valid Cases	31		

a. 208 cells (100,0%) have expected count less than 5. The minimum expected count is ,03.

From the conducted testing on the set hypothesis, the following values were obtained:

- Chi-Square value is 208,949
- The probability of the Chi-Square test (p) is 0,069

Since the value of probability of chi-square test (p) is greater than the alpha level of significance of 0.5 we can conclude that the hypothesis:

The choice of human resource management practices that encourage and strengthen individual innovative capabilities, influences innovation as a sustainable competitive advantage for enterprises – is rejected.

The obtained values from the testing of the hypothesis and the conclusion by which the set hypothesis is rejected, indicates that there is no correlation between innovation achieved through operation of enterprises in the Republic of Macedonia and the way in which these companies are managed, especially in the area of human resource management.

Conclusion

Strategic human resource management is a long-term approach that should look at human resource management as assets, i.e. investments that will ensure the achievement of the organizational objectives, but is this the case in the enterprises in the Republic of Macedonia?

Contrary to the scientific claims that human resource management should be fully integrated with the organization's strategy and its needs, the survey showed that this kind of connection is absent in enterprises in the Republic of Macedonia.

Considering the fact that the research covered exclusively innovative enterprises, it can be concluded that Macedonian enterprises do not base innovativeness on strategic direction on managing the employees as resources and maximizing their innovative potential for the needs of the organization, but in this case innovation is based exclusively on the set of attitudes and values that the employees nurture and the mutual relations that they establish among themselves.

Macedonian companies have not yet given the deserved function of human resource management, and it is still used for the most part for administrative purposes. Such a placement of things leads to the conclusion that human resource and its management in Macedonia is not yet recognized as a pillar, a carrier of innovation and systematic management with it is yet to be developed.

Macedonian enterprises should strive to improve the ways to make greater use of their own resources in order to ensure continuous progress. In this sense is the need to enrich with new scientific knowledge about the situation with human resource management in Macedonian enterprises and to create valid recommendations for its development and improvement. On this issue for Macedonia it is crucial to acquire professionals in the field of human resource management (which implies investments in training and skills development, application of foreign experiences, etc) in order to gain and raise the level of human resource management in companies, to use it for strategic purposes, rather than for the current administrative ones.

Macedonian companies must recognize not only the general meaning and benefit of professional human resource management, but also to learn and exploit the opportunity that it offers to direct the organizational capacities towards achieving specific objectives, such as innovation of enterprises.

References

1. **Armstrong, M.**, (2012) 12th Edition, *Armstrong's Handbook of Human Resource Management practice*, Kogan page Limited
2. **Bearswell, J., Claydon, T.**, (2007) 5th Edition, *Human Resource Management: A Contemporary Approach*, Pearson Education Limited, Harlow
3. **Burton, R.M., Eriksen, B., Hakonsson, D.D., Snow, Ch. C.**, (2006), *Organization Design: The Evolving State of the Art*, Springer Science + Business Media, LLC
4. **Jones, J.W., Steffy, B.D., Bray, D.W.**, (1991), *Applying Psychology in Business: The Hand book for Managers and Human Resource Professionals*, Lexington Books, New York
5. **Machado, C., Melo, P.**, (2014), *Effective Human Resources Management in small and Medium Enterprises: Global Perspectives*, Business Science Reference, Hershey
6. **Mumford, M.D., Hunter, S.T, Bedell – Avers, E.K.**, (2008), *Multi-level Issues in Creativity and Innovation*, Elsevier Ltd
7. **Paauwe, J.** (2004), *HRM and Performance: Achieving Long-term Viability*, Oxford University Press Inc., New York
8. **Parry, E., Stavrou, E., Lazarova, M.**, (2013), *Global Trends in Human Resource Management*, Palgrave Macmillan.
9. **Tansky, J.W., Heneman, R.L.**, (2006), *Human Resource Strategies for the High Growth Entrepreneurial Firm*, IAP - Information Age Publishing, Inc.
10. **Truss, C., Mankin, D., Kelliher, C.**, (2012), *Strategic Human Resource Management*, Oxford University Press, New York
11. **Warner, M.**, (2013), *Whither Chinese HRM?: Paradigms, Models and Theories*, Taylor & Francis
12. **Đuričin, D. N., Janošević, S.V., Kalučanin, Đ. M.**, (2010) 5^{to} Izdanje, *Menadžment I strategija*, Centar za izdavačku delatnost Ekonomskog fakulteta u Beogradu

UDC 331.5-053.6-027.511(497.7)
331.5-053.6:330.55(497.7)
Original scientific paper

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CHARACTERISTICS AND MACROECONOMIC DETERMINANTS OF YOUTH EMPLOYMENT IN MACEDONIA

Abstract

Employment, especially youth employment is considered to be one of the greatest challenges worldwide. The aim of this paper is to investigate the determinants which have influence over the youth participation (individuals aged 15-24) in the labour market in Republic of Macedonia. Quantitative methods are applied on data gathered from State Statistical Office to investigate classical macroeconomic determinants such as inflation rate, access to credit by the private sector, globalization and economic growth. Globalization is investigated through international trade and foreign direct investments, while economic growth through gross domestic product per capita and gross domestic investments. Youth employment rate is regressed on the set of macroeconomic variables in order to determine what has influence of employment of young individuals.

Results from this research suggest that macroeconomic variables as gross domestic product per capita, gross domestic investments, foreign direct investments, access to credit by the private sector have positive effect on youth employment rate in the country, while import is found to have negative effect on youth employment rate. Other macroeconomic variables like inflation rate and total youth population are found to be statistically insignificant for youth employment in the country.

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Keywords: Youth employment, Macroeconomic factors, Macedonia

JEL Classification: E24, J21

Introduction

Employment is considered to be the most important concern either in developing or developed countries. Macroeconomic policies can effectively influence employment and employment performance. Proper solution of the phenomena of lower employment rates is very important because low employment rates can act as heavy burden to a nation. In this context, youth employment is considered to be one of the greatest challenges of the countries globally. While the literature on macroeconomic determinants of unemployment for all age groups is very broad, few studies have attempted to answer the questions of the link between macroeconomic indicators and employment mostly focusing on female employment and employment in general. Most of studies for influence of macroeconomic factors on employment are related to Asia, Africa and very few for European countries, with no similar studies either for transition countries or Western Balkans countries.

Republic of Macedonia as in many developing countries develops strategies which are influenced by the vision of achieving respectable economic growth. In Republic of Macedonia changes in the structure of industries and economic activities generated a large scale of structural unemployment with very little prospect of reintegrating in the labour market. Unfavorable international economic and political situation, oscillations in economic growth rate due to military conflict and embargo towards Republic of Macedonia contributed to high unemployment in all age groups and especially high unemployment rates for young individuals. By presenting characteristics of the labour market in Macedonia and analyzing macroeconomic factors of youth employment in Republic of Macedonia, this paper aims to empirically explore which macroeconomic factors can influence employment of young individuals in Republic of Macedonia.

The present paper makes a contribution to the current literature because to our knowledge, there is no other relevant literature tackling this subject in transition economies. In that respect, findings may reveal future steps for increasing youth employment rates in the country. The structure of the paper

is as follows: in the next section review of the relevant literature is presented, in section 3 short overview of the labour market in Republic of Macedonia is presented, section 4 deals with data and used methodology, in section 5 results from the findings are presented while section 6 concludes.

1. LITERATURE REVIEW

Having a job in modern societies is considered to be more than just a financial input for an individual or for a household. Successful integration of an individual into society is through employment, it deepens the social capital for an individual and widens professional and personal network. This is especially important for young people since they need to successfully integrate into society as productive members. There is substantial literature that examines macroeconomic factors that affect unemployment rate in certain country, with very little focus how those factors can affect employment rate. Literature suggest that major factors that affect youth employment are macroeconomic factors as gross domestic product per capita, gross domestic investments, inflation rate, credit to private sector, globalization in terms of foreign direct investments and international trade, cultural and social norms, demographic factors, education, expectations and perceptions (Gomez-Salvador and Leiner-Killinger, 2008; Tam, 2011; Olivetti, 2013; Tsani et al, 2013, Verick 2014; Lechman and Kaur, 2015; Patimo et al., 2015). We will proceed by examining macroeconomic factors. Domestic investment acts as key source of employment and wealth creation in the country. Increasing domestic investment is major factor for reducing poverty. If domestic investment is low, economy will fail to increase which will lead to decline in economic growth and less employment opportunities. Study from International Labour organizations (2011) suggest that there is strong and positive relationship between domestic investment and creating job opportunities. This study reveals that increase of 1 percentage point in domestic investment will lead to 0.12 percentage points increase in employment rates. Level of economic development of the country can successfully reveal situation of the labour market in selected country. Findings from the study of Gomez-Salvador and Leiner-Killinger (2008) conducted for the countries from European Union suggest that there is negative effect of economic growth on youth unemployment. Lozanoska and Dzambaska (2015) state that sustainable economic growth is a key factor for increasing employment rate in Republic of Macedonia which on

the other hand can lighten the burden of the unemployment in the country. Labor market trends (2017) on the other side argues that economic growth alone in the countries from Western Balkans will not be sufficient to create available jobs needed in the labour market. This study suggest that positive relationship between economic growth and employment found in countries from central Europe is in contrast with findings from countries in Western Balkans, economic growth at this point will not guarantee employment growth suggesting that great part of unemployment in countries from Western Balkans is structural unemployment. Literature is not consistent of the effect on inflation rate on youth employment. In the study from Cashell (2004) who studied the connection between inflation rate and unemployment in general is found that unemployment rates response very slow to changes in inflation rate. Niemi and Lloyd (1981) found that inflation has positive impact on female participation in the labour market, and increasing inflation will affect male employment more than female employment. This result, regarding youth population, is in line with results for the study of Choudhry et al. (2012) in their cross-sectional study who found that inflation rate has significant and negative effect on youth unemployment. Opposite to this, Anyanwu (2013) found significant negative effect of inflation over youth employment.

Access to credit by private sector is an important tool for job creations. Companies who has adequate access to credit have greater potential to expand their business and therefore to increase job opportunities. In addition to this, expansion of the businesses should have effect of economic growth of the country. Acemoglu (2001) points out that financial restriction can be destructive for employment since it will reduce the number of new companies which are potential job creators. Positive effect of access to credit by private sector is confirmed in Anyanwu (2013). Literature examines globalization as factor that can influence employment in the country by exploring international trade and foreign direct investments. Literature is consistent with the effect of foreign direct investments on employment in general, foreign direct investments has significant and positive effect of employment (Oostendorp, 2009; Javorick, 2013). Javorick (2013) states that countries are pursuing foreign direct investments with one goal: to reduce unemployment in the country. Anyanwu (2013) argues that foreign direct investments on a long run can have negative impact on female unemployment since technical trainings are usually offered to males. However, Choudhry et al (2013) found negative impact of foreign direct investments on youth employment. International trade

is also considered as key factor of reducing unemployment. It is expected that increase of the export will affect companies to grow and with that to increase employment in the countries. However, Choudhry et al (2013) and Anyanwu (2013) found negative impact of international trade and youth employment.

In summary, macroeconomic factors are considered as key to reduce unemployment. Review of the relevant literature reveals the complexity of labour market. Despite social and demographic factors, inflation, credit to private sector, economic growth and globalization are major determinants of employment in the countries worldwide.

2. CHARACTERISTICS OF THE LABOUR MARKET IN MACEDONIA

Macedonian labour market is faced with many challenges from the independence in 1991 until today. Within that period, Republic of Macedonia experienced political instability and turbulent and unstable economic growth which has resulted with high unemployment rate, significantly lower employment rate compared with countries from European Union, high inactivity especially among females and young people and high informal employment. Despite this, Macedonia has experienced employment growth throughout the last decade and managed to continuously reduce the unemployment rate which is unfortunately still significantly higher than unemployment rate in the countries from European Union.

Table 1 shows total employment rate of working population aged 15-64 in Macedonia compared with countries from EU28 in the period from 2006 until 2016. The difference of total employment rate between Republic of Macedonia and EU28 countries of almost 25 percentage points in 2006 is reduced to 17.5 percentage points in 2016.

Table 1: Employment rates in Macedonia and EU28 between 2006 and 2016 in %

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
European Union (28 countries)	64.3	65.2	65.7	64.5	64.1	64.2	64.1	64.1	64.8	65.6	66.6
Republic of Macedonia	39.6	40.7	41.9	43.3	43.5	43.9	44.0	46.0	46.9	47.8	49.1

Source: Eurostat: <http://ec.europa.eu/eurostat/data/database>, Accessed date: May 15, 2017

According to Petreski et al (2016) such large gap can be explained by lower participation rates of young people (working population aged 15-24 years) and lower employment rate of females compared to males. However table 2 suggest increase of almost 2 percentage points in employment rates in working population aged 15-24 in the period of 2006-2016 in Macedonia while there is decrease of almost 3 percentage points in the same group for the same period in EU28. Analyzing the working population aged 25-54, in Macedonia there is growth of 9.6 percentage points in employment rates for the period between 2006 and 2016. Both EU28 and Macedonia are facing increase in employment rates for the age group 55-64, in EU 28 increase of 8 percentage points and in Macedonia increase of 12.2 percentage points.

Table 2: Employment rates by age groups in Macedonia and EU 28 between 2006 and 2016 in %

age Time/ Geo	15-24		25-54		55-64	
	EU28	MK	EU28	MK	EU28	MK
2006	36.4	14.4	78.1	51.6	43.3	27.9
2007	37.2	15.2	79.0	52.8	44.5	28.8
2008	37.3	15.7	79.4	53.9	45.5	31.7
2009	34.8	15.7	78.0	55.3	45.9	34.6
2010	33.8	15.4	77.7	55.8	46.2	34.2
2011	33.3	14.4	77.7	56.4	47.2	35.4
2012	32.5	15.5	77.3	55.8	48.7	35.4
2013	32.1	16.2	76.9	57.9	50.1	37.9
2014	32.4	15.2	77.4	59.3	51.8	38.6
2015	33.0	17.3	78.0	59.4	53.3	40.1
2016	33.7	16.2	78.7	61.2	55.3	40.7

Source: Eurostat: <http://ec.europa.eu/eurostat/data/database>, Accessed date: May 15, 2017

A high unemployment rate in Macedonia is one of the major issues and it is considered to be one of the most difficult, social, economic and political problem.

Table 3 presents unemployment rates for males and females aged 15-64 with respect to educational level for Macedonia and countries from EU 28 for the period between 2006 and 2016. Unemployment rates for Macedonia are considerably higher than unemployment rates for EU28 especially for educational levels above primary education. Unemployment rates from the

period between 2006 and 2016 for Republic of Macedonia are continuously declining for both genders but very modestly especially for individuals with tertiary education and above. Moreover, according to Western Balkans-Labour market trends (2017) migration is playing an important role in unemployment as well as in the inactivity because it has become an important source of income of individuals in Republic of Macedonia.

Table 3: Unemployment rates by gender and educational attainment

	15-64											
	Less than primary, primary and lower secondary education				Upper secondary and post-secondary non-tertiary education				Tertiary education			
	Males		Females		Males		Females		Males		Females	
	EU28	<i>MK</i>	EU28	<i>MK</i>	EU28	<i>MK</i>	EU28	<i>MK</i>	EU28	<i>MK</i>	EU28	<i>MK</i>
2006	10.7	41.2	13.1	45.3	7.6	36.0	9.2	38.4	4.1	19.6	5.1	23.0
2007	10.0	43.1	12.1	44.5	6.4	34.4	7.8	36.4	3.5	17.9	4.5	23.2
2008	10.9	42.0	12.3	42.0	6.0	32.5	7.2	34.1	3.4	19.3	4.3	23.7
2009	14.8	38.4	14.7	40.9	8.2	32.1	8.6	32.6	4.8	17.8	5.2	24.8
2010	16.2	40.9	15.9	37.7	8.8	31.3	9.3	33.4	5.1	19.0	5.7	24.8
2011	16.7	40.0	16.5	34.8	8.6	31.5	9.4	31.8	5.1	19.6	6.0	26.3
2012	18.8	41.3	18.3	33.2	9.3	31.1	10.1	31.9	5.6	18.8	6.7	25.9
2013	19.9	35.8	19.4	32.9	9.7	28.7	10.5	29.0	5.9	19.8	7.0	26.8
2014	19.1	33.3	18.9	31.5	9.1	27.4	10.0	29.8	5.6	20.1	6.7	24.6
2015	17.7	32.1	18.0	27.8	8.4	27.1	9.2	26.0	5.1	19.4	6.2	22.6
2016	16.2	31.2	17.1	27.6	7.5	24.3	8.4	22.7	4.6	17.7	5.7	21.0

Source: Eurostat: <http://ec.europa.eu/eurostat/data/database>, Accessed date: May 15, 2017

Part of the high unemployment rate in Macedonia can be explained by high female inactivity for in labour market for the age group 15-64 (Table 4). Difference in inactivity rates for males in Republic of Macedonia and countries from EU28 is 0.7 percentage points, and the difference in inactivity rates for females in Republic of Macedonia and countries from EU28 is 16.5 percentage points.

Table 4: Inactivity rates by gender

	15-64			
	Males		Females	
	EU28	<i>MK</i>	EU28	<i>MK</i>
2006	22.5	25.0	37.2	50.8
2007	22.4	25.2	36.9	49.6
2008	22.2	23.4	36.4	49.8
2009	22.4	22.4	35.9	50.0
2010	22.4	22.3	35.6	49.6
2011	22.5	23.2	35.2	48.8
2012	22.2	23.4	34.5	49.2
2013	22.1	23.2	34.0	47.3
2014	21.9	22.3	33.5	47.5
2015	21.7	22.5	33.2	48.0
2016	21.5	22.2	32.7	49.2

Source: Eurostat: <http://ec.europa.eu/eurostat/data/database>, Accessed date: May 15, 2017

Moreover, if we analyze inactivity in the age group 15-24, we can see that part of the high inactivity in the labour market in Macedonia can be explained by high inactivity rates in the age group 15-24 especially for the females and those numbers are increasing for the past 10 years. In Table 5 are presented inactivity rates for males and females from EU28 and Republic of Macedonia in the age group 15-24.

Table 5: Inactivity rates for age group 15-24 for Republic of Macedonia and EU28

	15-24					
	Total		Males		Females	
	EU28	MK	EU28	MK	EU28	MK
2006	55,9	64,2	52,6	58,0	59,4	70,7
2007	56,0	64,1	52,6	56,2	59,5	72,5
2008	55,8	64,1	52,4	56,7	59,4	71,9
2009	56,5	65,0	53,4	56,6	59,8	73,8
2010	57,2	66,7	54,1	57,8	60,4	76,0
2011	57,5	67,9	54,6	60,1	60,6	76,1
2012	57,7	66,4	54,8	59,5	60,7	73,8
2013	58,0	66,4	55,2	60,1	60,8	72,9
2014	58,3	67,6	55,6	60,7	61,2	74,9
2015	58,5	67,2	55,9	59,9	61,3	74,9
2016	58,5	68,7	56,0	60,8	61,1	77,0

Source: Eurostat: <http://ec.europa.eu/eurostat/data/database>, Accessed date: May 15, 2017

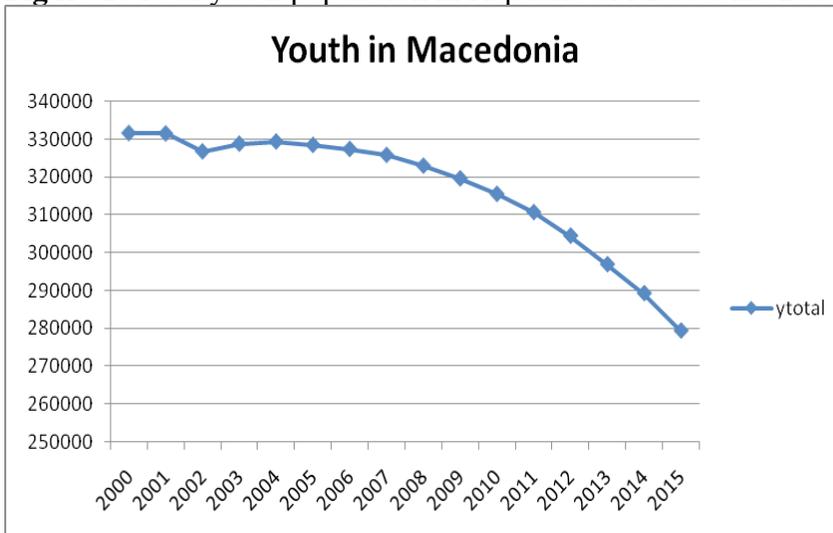
According to Western Balkans-Labour market trends (2017) the increasing of the employment rate is considered to be one of the major goals of South Eastern Europe 2020 strategy. The analysis of employment and unemployment rates in Macedonia suggest that for the past 10 years Macedonia has some improvements in labour market strategies which resulted with declining in unemployment rates and increasing the employment rates but the numbers are significantly different from unemployment and employment rates in the countries from EU28. Young workers from Macedonia aged 15-24 are less likely to be employed relative to other age groups. Tomic (2016) explains that risk of unemployment is higher for young people because of their lack of experience, incomplete or lower level of education, personal network is not developed enough and difficulties in school-to-work transition. Individuals with completed primary education are most affected with high unemployment in the country compared with other age groups and with results from the countries from EU28. Moreover, according to Western Balkans-Labour market trends (2017) migration is playing an important role in unemployment as well as in the inactivity because it has become an important source of income of individuals in Republic of Macedonia.

3. DATA AND METHODOLOGY

This section focuses on econometric analysis of macroeconomic determinants of youth employment in Macedonia. Very few authors using different approaches have tried to examine macroeconomic factors that influence employment in the country (Abdullah, 2011, Anyanwu, 2012, Anyanwu, 2013, Verick 2014; Patimo et al., 2015). This study is based on the methodology used in the work of Anyanwu (2013) with minor modifications in regards to country specifics and available data. Anyanwu (2013) by using cross-sectional data over the period 1991-2009 to investigate macroeconomic determinants of youth employment in Africa have tried to shed a light of high unemployment rate of youth aged 15-24 in Africa. We use annual data for the period between 2000 and 2016 since for some variables included in the regression quarterly data are missing. Data are gathered from the online base of State Statistical Office in Macedonia.

Figure 1 presents number of total youth in Republic of Macedonia for the period between 2000 and 2016. There is a clear presentation of declining in youth population in Macedonia, from 331593 young individuals in Macedonia in 2000 to 279343 in 2016.

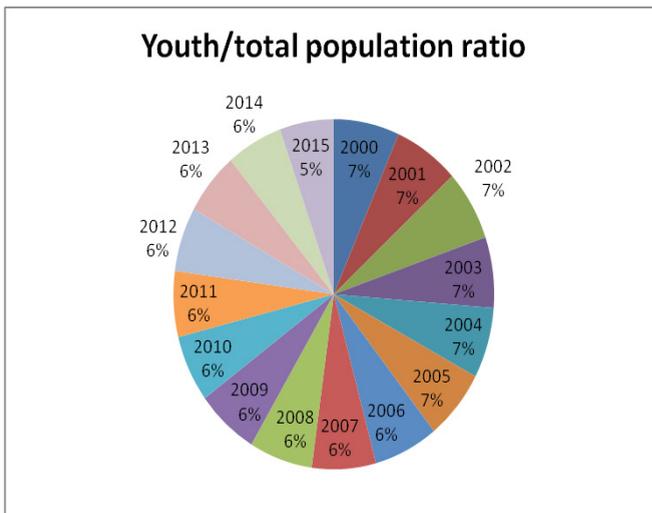
Figure 1: Total youth population in Republic of Macedonia 2000-2016



Source: Authors' presentation of data from State Statistical Office: <http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef>, Accessed date May 9, 2017

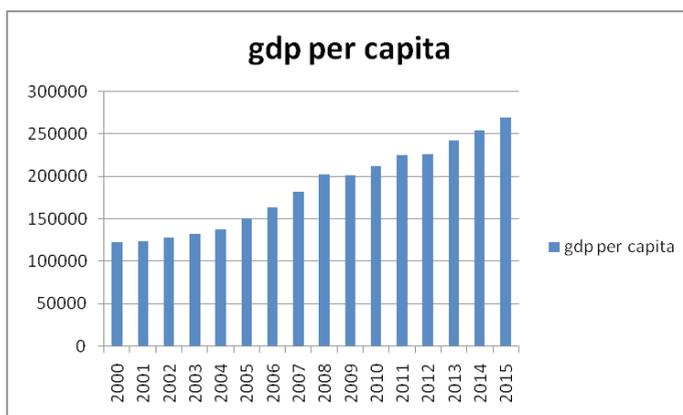
Such decreasing of youth population in the Republic of Macedonia can be explained with lower fertility rates and decrease of the population in Macedonia in general. Figure 2 present youth share in the total population ratio. Youth share in the total population is approximately same each year between 2000 and 2016, around 6%. GDP per capita is constantly increasing for the selected period. From 122706 denars in 2000 to 269514 denars in 2016 (See figure 3).

Figure 2: Youth share in total population 2000-2016



Source: Source: Authors' presentation of data from State Statistical Office: <http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef>, Accessed date May 9, 2017

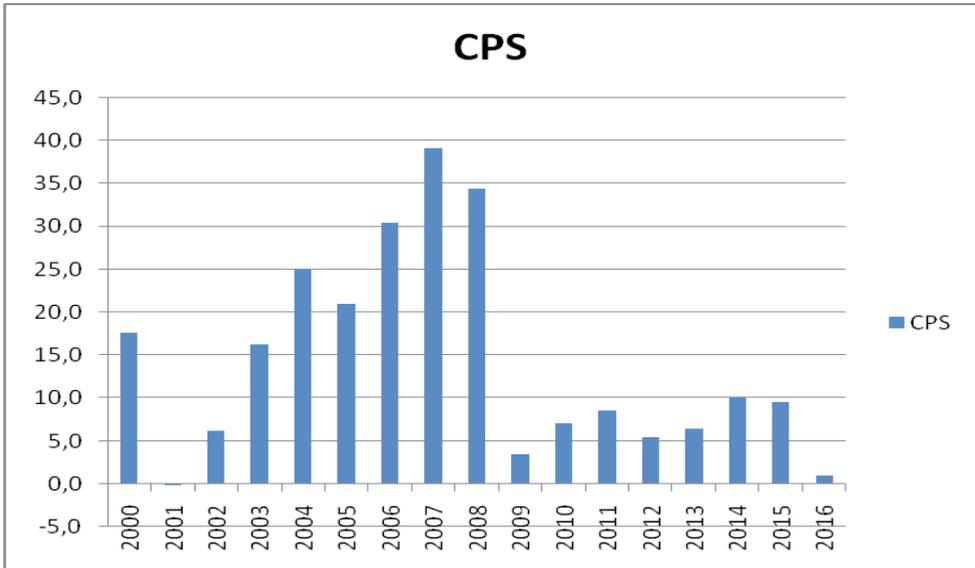
Figure 3: Gross Domestic Product per capita 2000-2016



Source: Source: Authors' presentation of data from State Statistical Office: <http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef>, Accessed date May 9, 2017

Credit to private sector by banks and thrifts vary within selected period (see figure 4). This can be explained by the political and economic instability for the period between 2000 and 2016 in the Republic of Macedonia.

Figure 4: Credit to private sector from banks and thrifts



Source: Source: Authors' presentation of data from State Statistical Office: <http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef>, Accessed date May 9, 2017

The variable employment rate for young individuals in the period between 2000 and 2016 was used as dependent variable. Macroeconomic indicators: gross domestic product per capita, gross domestic investments, credit to private sector from banks and thrifts, foreign direct investments, export, import, inflation rate, total youth population were used as independent variables. More detailed explanation of the variables used in the study is presented in Table 6.

Table 6: Description of the variables

Name of the variable	Explanation of the variable	
Rate of young individuals employed (RY)	Rate of young individuals employed in the period between 2000 and 2016	Continuous variable (dependent variable)
Gross domestic product per capita	Gross domestic product per capita in the period between 2000 and 2016	Continuous variable Unit: denars
Gross domestic investments	Gross domestic investments in the period between 2000 and 2016	Continuous variable Unit: denars
Credit to private sector (CPS)	Percentage of the credit to private sector from banks and thrifts for the selected period from 2000 to 2016	Continuous variable
Inflation rate (IR)	Annual rate of inflation in the period between 2000 and 2016	Continuous variable
Import	Import of goods and services for the period between 2000 and 2016	Continuous variable Unit: denars
Foreign Direct investments (FDI)	Foreign Direct investments in Republic of Macedonia for the period 2000 – 2016	Continuous variable Unit: denars
Total youth population	Total youth population in Republic of Macedonia in the period between 2000 and 2016	

We apply linear regression, which is defined as:

$$RY = c + \beta_1 \ln(gdppc_i) + \beta_2 \ln(imp_i) + \beta_3 \ln(inv_i) + \beta_4 (IR_i) + \beta_5 (CPS_i) + \beta_6 \ln(FDI) + \beta_7 (YP_i) + \varepsilon ; \quad i = \overline{2000, 2016} \quad (1)$$

, where *RY* stands for youth employment rate, *gdpc* for gross domestic product per capita in denars, *imp* for import in denars, *inv* for gross domestic investments in denars, *IR* for annual inflation rate, *CPS* for credit to private sector in percentage, *FDI* for foreign direct investments in denars and *YP* for total youth population, all for selected period from 2000 to 2016.

We use natural logarithm of gross domestic product per capita, foreign direct investments, export, import and gross domestic investments in order to reduce variability of the data.

To examine whether variables used in equation (1) are stationary we conduct Dickey-Fuller test (see appendix A for results). In order to avoid spurious regression we use first difference of: youth employment rate, gross domestic investments, credit to private sector and gross domestic product per capita and second difference of import and total youth employment. Therefore equation (1) is now transformed:

$$RY = c + \beta_1 \ln(gdppc_{i-1}) + \beta_2 \ln(imp_{i-2}) + \beta_3 \ln(inv_{i-1}) + \beta_4 (IR_i) + \beta_5 (CPS_{i-1}) + \beta_6 \ln(FDI) + \beta_7 (YP_{i-2}) + \varepsilon_i \quad (2)$$

To test equation (2) for serial correlation we perform Breusch-Godfrey (LM) test. Detailed results presented in appendix B suggest presence of serial correlation. To avoid serial correlation we use AR(1) method.

In next section, findings from the study are presented.

4. FINDINGS

The coefficient of determination for the equation (2) is about 77 percent, meaning that 77 percent of the variability in the youth employment rates in Macedonia is explained by the independent variables/ regressors (See Table C1 in Appendix C).

As Table C1 (Appendix C) shows, following macroeconomic variables are found to have a significant influence on the employment rates of young individuals aged 15-24: credit to private sector from banks and thrifts, import, foreign direct investments, gross investments and gross domestic product per capita. Total population of youth in the Republic of Macedonia and inflation rate are found to have insignificant effect on employment rate of young workers aged 15-24.

Our study shows that inflation has no statistically significant effect on youth employment rate. This result is not in line with the finding from literature presented in section 2.

If credit to private sector from banks and thrifts increase for 1 percentage point, youth employment rate will increase for 0.12 percentage points, *ceteris paribus*. This result is in line with the findings in the literature; the positive effect of access to credit by the private sector is confirmed in our study as well.

In order to investigate how international trade influence youth employment in republic of Macedonia we included import as independent

variable. Import is statistically significant in this model suggesting that each increase of import of 1 percentage point will decrease youth employment rate for approximately 6 percentage points, *ceteris paribus*.

Increase of domestic gross investments for 1 percentage point will lead to increase in youth employment rate for around 21 percentage points, all other things being equal. This result is significantly different than findings from International Labour Organization (2011). The difference in results can be explained as difference in dependent variable. In our study we examine how domestic investment affects youth employment while study from ILO (2011) deals with employment in general. Foreign direct investments are seen as a major opportunity for job creations. Inflow of foreign capital will lead to growth in employment and consequently increase youth employment rate. 1 percentage point increase in foreign direct investments leads to approximately 3 percentage points in youth employment rate. This result is in line with the work of Oostendorp (2009) and Javorick (2013)

Each increase of gross domestic product per capita of 1 percentage point is expected to increase youth employment rate for 16 percentage points, *ceteris paribus*. This result is in line with the results from the literature; positive impact of economic growth on youth employment is confirmed. At the end, we are testing whether increase in youth population will affect youth employment rate. We found no significant effect of total youth population on youth employment rate.

Conclusion

The aim of this paper was to empirically test whether macroeconomic variables have influence on youth employment in the Republic of Macedonia. We employed similar approach as the one used by Anyanwu (2013) in which we regress youth employment rate on a set of macroeconomic variables: Inflation rate, credit to private sector from banks and thrifts, gross domestic product per capita, export, import and gross domestic investments. We also include total youth population as independent variable. Our findings reveal that despite our expectations, some macroeconomic variables like inflation rate is found to be statistically insignificant for youth employment in the country. Gross domestic product per capita, gross domestic investments, foreign direct investments, access to credit by the private sector have positive effect on youth employment rate in the country, while import is found to have

negative effect on youth employment rate. This research suggest that in order to increase employment rate for young people, policy makers should continue pursuing foreign direct investments and in the same time to continuously increase domestic investment especially in domestic companies.

References:

1. Abdullah, N., Zalina Abu , N., Long, Y. (2011) Employment and Macroeconomic Variables: Evidence from Malaysia, Philippines and Singapore, *International Journal of Economics and Finance* 3(3), 2011, pp. 149 – 158
2. Acemoglu, D. (2001), ‘Credit Market Imperfections and Persistent Unemployment’, *European Economic Review*, 45 (1), pp. 665–79.
3. Anyanwu , J. C. (2013) Characteristics and Macroeconomic Determinants of Youth Employment In Africa, *African Development Review*, Vol. 25(2), pp 107–129
4. Anyanwu , J. C. (2013) Accounting for female employment in Africa, *European Economics Letters* , 1(1), pp. 14-26
5. Cashell, W. B. (2004). *Inflation and unemployment : What is the connection?* Federal Publications.
6. Choudhry, M. T., Marelli, E. and Signorelli, M. (2012), Youth Unemployment Rate and Impact of Financial Crises, *International Journal of Manpower*, 33(1), pp. 76–95.
7. Eurostat, <http://ec.europa.eu/eurostat/data/database>, Accessed date May 15, 2017
8. Gomez-Salvador, R. and Leiner-Killinger, N. (2008), ‘An Analysis of Youth Unemployment in the Euro Area’, *ECB Occasional Paper Series No. 89*
9. ILO (International Labour Organization) (2011), *World of Work Report 2011: Making Markets Work for Jobs*, ILO and ILS, Geneva.
10. Javorcik, B. (2013), *Does FDI Bring Good Jobs to Host Countries?*, *World Development Report 2013 Background Paper*, World Bank, Washington, DC.
11. *Labour Market Trends* (2017)
12. Lechman, E., Kaur, H. (2015), Economic growth and female labor force participation-verifying the U-feminization hypothesis. New evidence for 162 countries over the period 1990-2012, *Economics and Sociology*, 8(1) pp. 246-257.

13. Lozanoska, A., and Dzambaska, E. (2015) Macroeconomic Assumptions For The Employment Policy- An Overview onf the Situation in Republic of Macedonia, Economic development, pp. 343-360
14. Niemi, B. T. and C. B. Lloyd (1981), Female Labor Supply in the Context of Inflation, The American Economic Review, 71(1), pp. 70–75.
15. Olivetti, C. (2013) The female labor force and long-run development: the American Experience in comparative perspective, NBER Working Paper 19131.
16. Oostendorp, R. H. (2009), Globalization and the Gender Wage Gap, World Bank Economic Review, 23(1) , pp. 141–61.
17. Patimo, R.(2015) Culture and Labour Market Participation, Rivista Italiana di Economia Demografia e Statistica, 69 (1): pp. 159-166
18. Petreski, M ., Mojsoska-Blazeski, N., Bergolo, M., (2016) Labour Market Scars When Youth Unemployment is Extremely High: Evidence From Macedonia, IZA Discussion Paper No. 10342
19. State Statistical Office, <http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef>, Accessed date May 9, 2017
20. Tam, H. (2011), U-shaped female labor participation with economic development: Some panel data evidence, Economics Letters 110(2), pp.140-142.
21. Tomic, I. (2016) What drives youth unemployment in Europe, EIZ Working Papers 1601
22. Tsani, S., Paroussos, L., Fragiadakis, C., Charalambidis, I., Capros, P. (2013), Female labour force participation and economic growth in the South Mediterranean countries, Economics Letters, 120(2), pp.323-328.
23. Verick, S. (2014) Female labor force participation in developing countries, IZA World of Labor No 87

Appendix A

Variable	p-value-Dickey-Fuller test	p-value-Dickey-Fuller test after first difference	p-value-Dickey-Fuller test after second difference
CPS	0.4080	0.0140	
IR	0.0392		
Ln(FDI)	0.0482__		
Ln(gdppercapita)	0.9469	0.0445	
Ln(import)	0.2403	0.4344	0.0008
Youth employment rate	0.1678	0.0014	
Gross domestic investments	0.9647	0.0001	
Total youth population	1.0000	0.9997	0.0002

Test showed that variables youth employment rate, import, gross domestic investments, credit to private sector, total youth employment, gross domestic product per capita are non-stationary variables.

Appendix B

Ho: no serial correlation

H1: serial correlation

Running the estimated regression (2) we perform Breusch-Godfrey (LM) test with following result:

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.138321	Prob. F(2,2)	0.4677
Obs*R-squared	6.388120	Prob. Chi-Square(2)	0.0410

Since p-value is $0.041 < 0.05$, we must reject the null-hypothesis that there is no serial correlation. Results suggest presence of serial correlation.

Appendix C

Dependent Variable: YE

Table C1: Results from regression (2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-78.40108	16.53047	-4.742821	0.0417
IR	0.157167	0.163712	0.960018	0.4383
GDP	16.20262**	9.244008	7.161680	0.0189
FDI	3.008614**	0.644953	4.664861	0.0430
CPS	0.127946*	0.033810	3.784290	0.0633
IMP	-6.306596*	1.411741	-4.467247	0.0466
INV	21.94130*	5.577279	-3.934052	0.0590
YT	0.001282	0.000601	2.133857	0.1664
AR(1)	-0.722252	0.081887	-8.820105	0.0126
R-squared	0.954393	Mean dependent var		0.040909
Adjusted R-squared	0.771966	S.D. dependent var		1.299388
S.E. of regression	0.620495	Akaike info criterion		1.815018
Sum squared resid	0.770029	Schwarz criterion		2.140569
Log likelihood	-0.982601	Hannan-Quinn criter.		1.609804
F-statistic	1.231641	Durbin-Watson stat		2.002304
Prob(F-statistic)	0.000322			

*, ** and *** indicate significance at the 10, 5 and 1% level, respectively

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THE THREE LINE OF DEFENCE MODEL FOR EFFECTIVE RISK MANAGEMENT IN LOCAL GOVERNMENT

Abstract

The aim of this paper is to evaluate the process of public finance risk management in local government in the Republic of Macedonia through the system of internal controls and internal auditing. The research was realized by interviewing the financial managers, internal controllers and internal auditors in 48 municipalities in Macedonia. We have evaluated the effectiveness of the overall process of risk management in each of the lines of the “three lines of defense’ model by analyzing the answers of the questionnaires. Based on the results from the research we have proposed recommendations for improving risk control in the local government in Macedonia by promoting the “three lines of defense’ model for adding value to public finance management.

Key words: ‘three lines of defense’ model, risk management, local government, public finance management

JEL classification: H830, M420, M480

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1. Introduction

Public organizations, with their specifics and sector position, are massively exposed to internal and external risk influence, a characteristic which it shares with corporate organizations. Risk range has been expanding and exposure to risk is increasing for public organizations. Drennan, McConnell and Stark¹ explain this issue through the development of societies which have become more complex.

Realistic risk assessments enable public sector organizations to make the right decision about the level of risk they are willing to bear². The notion of risk should be embedded in the organizational culture while the management has to be aware that all their activities are an integral part of the process of managing risks, a process which should be conducted continuously.

In the second half of the 1990s, the EC developed the concept Public Internal Financial Control (PIFC)³ to help upgrade the internal control systems in the public sector of EU member states and candidate countries for EU accession. The PIFC concept is composed of three elements: managerial responsibility - financial management and control, functional internal audit and a central harmonization unit, a driving force of change. PIFC covers the sector of public finances⁴ and refers to the formulation of the state budget, fiscal discipline, public accounting, procurement, internal control and financial reporting and plays a significant role in the process of reforms in public finances.

A model for evaluating internal controls, developed in 1992 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), has been adopted as the generally accepted framework for internal control. The COSO model defines internal control as a process effected by an authorized person and designed to provide reasonable assurance of the achievement of objectives in: effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations.

¹ Drennan, T. L, McConnell, A. and Stark, A.: Risk and crisis management in the public sector. 2nd ed. Routledge, 2014.

² CIPFA and IFAC: International Framework: Good Governance in the Public Sector, CIPFA, IFAC. 2014.

³ European Commission.: Welcome to the world of PIFC, Brussels, European Commission, 2006.

⁴ De Koning, R.: PifC, Public Internal Financial Control, a European Commission Initiative to Build New Structures of Public Internal Control in Applicant and Third-Party Countries, Sint Katharina Lombeek, Belgium, 2007.

For the implementation of Macedonia's strategy for membership in the EU, a Law on Public Internal Financial Control (LPIFC) was adopted that was based on the principles of PIFC. The law regulates the system of internal control in accordance with internationally accepted standards for internal control and the use of interconnected components, such as: control environment, risk management, information and communication, and control and monitoring.

The financial management and control (FMC) of the local government system applies the principles of the COSO framework for internal control. Additionally, Standards for Internal Control in the public sector have been adopted, and they explain in detail the components of financial management and control in the public sector. Similarly, the Ministry of Finance publishes a Strategy for Development of Public Internal Financial Control every three years.

The Ministry of finance of the Republic of Macedonia⁵ reports that 88% of the local self-governmental units do not disclose the most important risks and almost 68% have not appointed a person responsible for risks. Neither has it adopted procedures for the realization of the strategic plan for 2014.

The State Audit Office⁶ in the 2014 report states that 68% of the budget users at the central level and 32% from the revised 19 local government units (LGUs) have not adopted a plan to establish FMC. 74% of LGUs lack risk assessment-related activities, 42% have established ex-ante financial control, while 26% of the budget users and 30% of LGUs have established ex-post financial control at the central level.

The findings from the above mentioned reports indicate an inefficient form of risk management in the system of financial management and control in the local self-governmental units. Therefore, the organization of the risk management in local governments units in Macedonia is the subject of research in this paper and the aim is the promotion of the model of three lines of defense for increasing the efficiency of this management.

⁵ Ministry of Finance of R.M.: Annual Report on the system of public internal financial control functioning. Skopje, 2015

⁶ State audit office: Annual Report for 2014, Skopje, 2014.

2. THE THREE LINES OF DEFENSE MODEL

The structure of the “three lines of defense” model is a conceptual distinction between the internal controls in each of the three lines of the model: (i) identification of risks in the first line, (ii) a system of internal controls and monitoring in the second line and (iii) an independent system ensuring the relevance of the internal control system in the third line. According to ECIIA and FERMA⁷, the “three lines of defense” model provides a framework where the management will better understand the importance of the internal controls and the role of internal audit in the overall risk management of an organization.

The Three Lines of Defense model’s implementation throughout the world is illustrated by the results of a Global Internal Audit Common Body of Knowledge (CBOK) research from The IIA Research Foundation, published in 2010. According to this report, 55 % of respondents from publicly traded organizations, 43 % from the public sector, 41 % from non-profit organizations, and 40 % of respondents from private companies (all excluding the financial sector) are using the model.

Despite the model’s widespread recognition, some authors have conflicting opinions about it, especially due to the model’s limiting factors. One of these critiques is voiced by Norman Marks in his blog “The Three Lines of Defense model is the Wrong model”⁸ where he claimed that the model is not as perfect as it seems. Ernst and Young⁹ draws attention on the model’s functionality when an organization declares to be using the “three lines of defense” model but is unable to carry out comprehensive mapping of risks in each line.

Andrew Smart in his blog “Is it time to kill the Three Lines of Defence model?”¹⁰ considers the Three Lines of Defence model to be an artificial construction and calls the industry (Financial Services) and the profession (Risk Management) to abolish it. He gives a few key reasons for that: the model has taken a disproportionate amount of time and too often it is perceived as a ‘regulatory thing’ rather than something that enhances governance and decision-making within the business, and it is well-understood by operational risk and compliance professionals, but not by the businesses themselves.

⁷ ECIIA and FERMA: Guidance on EU 8th company law directive, art 41, part 1, Brussels, 2010.

⁸ Posted on January, 25, 2015.

⁹ Ernst & Young: Maximizing value from your lines of defense, A pragmatic approach to establishing and optimizing your LOD model, 2013.

¹⁰ Posted on March 18, 2016.

3. METHODOLOGY AND DATA

The system of internal controls within LGUs was examined using a non-financial questionnaire, since the examination of the process of internal controls in most cases is associated with human behavior. A qualitative method of examining the problem in our research was applied in each of the lines of the promoted “Three lines of defense” model. This approach provided assessment of the internal controls and the risk management system in the public finances in LGUs.

A structured form of questionnaires was designed, combined with multiple-choice and Yes/No questions which according to SAO¹¹ are common in questionnaires for internal controls. The questions were designed by the Balanced Scorecard (BSC) principle based on the four segments for measuring the success of the BSC model: Management, Finance, Employees and Processes. The model is widely used in the corporate sector, but currently is often used in the public sector as well. The data included in this research are considered to be valid, since the questionnaires that investigate the problem comply with the law that addresses the issue of introducing internal controls in the public sector. The questions regarding internal control are in accordance with the five components of the COSO framework for internal control: control environment, risk assessment, control activities, information and communication and monitoring¹² (COSO, 2013).

Three sets of questionnaires were designed according to the model principles which were submitted to:

- Mayors or secretaries of municipalities and heads of offices for the first line;
- Heads of departments of Finance for the second line and
- Internal auditors for the third line.

Data was provided through online communication with the respondents and the survey was conducted over a period of three months from September to November 2015. Contact was made with 55 of the 85 municipalities in Macedonia and responses were received from 40 municipalities involving 95 respondents: 34 in the first, 39 in the second and 22 in the third line of the model.

¹¹ SAO: Accountability Modules, Data Analysis: Describing Data - Descriptive Statistics. Texas State Auditor's Office, Methodology Manual, rev. 5/95, 2013.

¹² COSO: Internal control-Integrated framework. American Institute of Certified Public Accountants, The Committee of Sponsoring Organizations of the Treadway Commission. 2013.

The problem in the first line was tested with a set of 35 questions in the second line with 29 questions, whereas in the third line it was tested with a set of 25 questions¹³. The questions include offered answers “Yes”, “No” and “N/A, not applicable”. The answers “No” and “N/A” were negatively assessed. There was a distinction in the assessment: The N/A items were given a greater degree of risk because it was believed it indicated that management was not considering taking appropriate measures regarding the risk issue and internal controls at all.

After the examination of the problem situation, we moved towards the evaluation of the internal control processes in LGUs. A semi-quantitative method was applied that examined the expectations for the performance of the internal control system in LGUs expressed in the hypothesis of our research. The Comprehensive Assessment Model - CAM, the Institute of Internal Auditors Research Foundation (IIARF) methodology was used. The CAM methodology was promoted by Dittmeier and Casati¹⁴ because it is suitable for the internal auditors in the organizations observing the system of internal controls through their design and functionality. They have summarized the assessment criteria for the design of internal controls as follows:

- a. Relevance: the level to which the control activity addresses the pertinent control objective under analysis
- b. Timeliness: how long it takes for controls to respond to negative events.
- c. Strength: series of factors that influence the probability of control effectiveness should related risks arise
 - c.1 Discretion: the level to which the control is discretionary or subjective
 - c.2 Segregation: the level of control segregation that goes beyond the well-known concept of separation of roles and duties between process activities
 - c.3 Independence: the capability of the control owner to manage resources (technical, human, informational, economic) so that the control is most effective, acquiring or integrating resources as needed
 - c.4 Integration: the degree and manner in which the control reinforces other control processes for the same objective
 - c.5 Automation: the degree to which the control process is activated by automated systems that reduce errors derived from human behavior

¹³ The questionnaires can be provided on the request to the authors

¹⁴ Dittmeier, C. and Casati, P.: Evaluating Internal Control Systems: A Comprehensive Assessment Model (CAM) for Enterprise Risk Management, Altamonte Springs, The Institute of Internal Auditors Research Foundation, 2014.

- c.6 Adaptability: how adaptable the control is to fluctuating volumes of activity
- c.7 Traceability: the degree to which the control can be verified subsequently in all respects
- d. Coverage: the level in which all significant risks are addressed.

The performance assessment (effectiveness) of the system of controls by CAM includes:

- a. Availability of resources for the smooth operation of controls (financial, technical and human)
- b. Compliance of the established internal controls;
- c. Measurement of residual risk.

The criteria in both parts (design and performance) of assessment, are applicable to each control process individually. Control objectives are rated from 1 (optimal) to 5 (weak). CAM includes risk weight for each criterion manifested through the adjustment of the control objective with the risk assessment for a certain process. The top management or the audit committee define the risk weights of internal controls based on their perception of risk.

Hypotheses

- For the ability to create an effective system of internal controls through the first line of the “three line of defense” model, the following hypotheses were formulated:
 - H1: Management is not sufficiently aware of the risk management concept.
 - H2: Management does not take sufficient action to effectively manage risks.
- In the second line of the model the following hypotheses were formulated:
 - H3: The system of internal controls is partially functioning and is not fully effective.
 - H4: There is a danger that, at some point, the controls cannot prevent fraud or error due to:
 - a) insufficient number of employees in the department; and
 - b) inadequate training of employees in the department.
- The role of the internal auditor was examined in terms of independence for which the following hypotheses were formulated:

H5: Internal audit is not fully independent and cannot provide added value in risk management.

H6: Internal audit is completely independent, it is an effective tool for minimizing the financial irregularities.

4. RESULTS

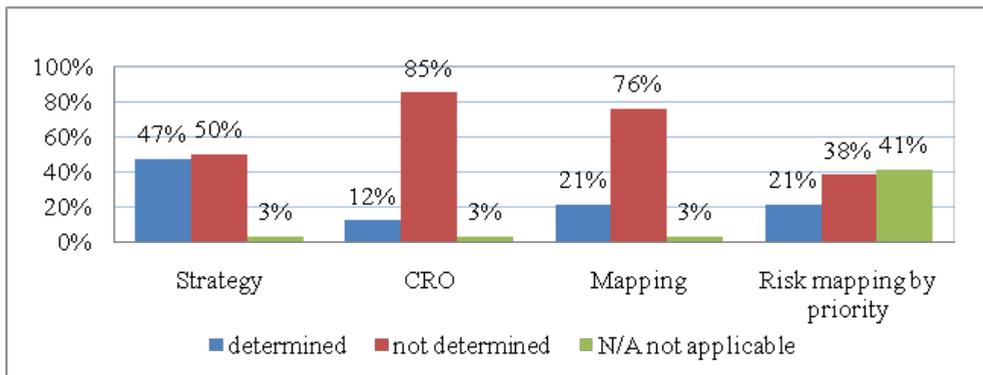
4.1 First line of defense – Top and operational management

The analysis of the system of risk management and internal controls started by assessing the ability of top management to organize efficient processes for dealing with risks. Three key elements and their sub-components as a starting point for examining the processes of risk management were determined:

- Risk management strategy,
- CRO (coordinator) for risk management and
- Mapping of the most important risks.

Public organizations should have a strategy for risk management. The responses show that 47% of respondents have established risk management strategy, 50% have not established the strategy yet and 3% found it inapplicable. Furthermore, only 21% of respondents keep a risk register of areas and priority of significance, 76% do not map the risks and 3% found mapping to be inapplicable. Only 12% of respondents have established CRO, 85% have not established it and 3% found it inapplicable.

Figure 1. Initial elements of risk management in LGUs



Source: The authors` own work

The high percentage of unimplemented CRO and improper recording of priority risks indicates that in most LGUs the strategies are inapplicable and they only satisfy the regulatory measure.

Even though 88% of LGUs have regular meetings, 38% of them consider the most significant risks and 35% take action to mitigate the identified risks. Of the total number of surveyed LGUs 21% record the most significant risks, 12% have an established CRO (coordinator) for risk management i.e. a total of 33%, which confirms the findings that 35% of LGUs take action to mitigate risks.

The survey results show that 85% have a person or department that manages information technology, but a very high 65% have not established an IT strategy, while 76% have no contingency plan for the protection of IT systems in an emergency situation. In terms of the internal control system, 76% have established procedures for FMC, of whom 74% have defined employees' duties and 50% have operating controls according to procedures. The functional analysis of the system of controls was conducted with a questionnaire in the second line of the mentioned model where the process of internal control actually happens.

To the question whether the management understands the risk management and internal control concept, 53% of respondents gave positive answers while 47% did not. The above question is in fact the first hypothesis of this research. However, the final opinion was formed after an extensive data testing from the first line using CAM methodology for the evaluation of internal controls.

4.2 Second line of defense – system of internal controls

For a more detailed analysis of the quality of internal controls, a comparative analysis was performed between the creators (first line) and the implementers (second line) of the controls with a questionnaire. The analyzed data was presented in accordance with the principles of COSO framework for internal controls as they are contained in the questions for examination of the problem. The existence of procedures for FMC was positively responded to by 79% which confirms the reliability of the data, because it is close to the 76% response rate by the LGUs' management.

4.2.1 Control environment

The process of internal controls in LGUs, due to the narrowed focus of study (Finance departments), was examined only with the LGU staff. 82% have staff in the accounting department, tax administration (67%), public procurement (64%) and lowest staffing occurred in the budgetary control department (38%). The analysis showed a significant discrepancy between planned and filled jobs. In most LGUs (44%), according to the job classification, the finance department should count between 11-15 employees. However, this level of staffing is achieved by only 15%. Inadequate staffing of jobs in the finance department seriously hampers control processes, as evidenced by the fact that only 36% of LGUs introduced a policy of job rotation. Job rotation in the control process is important because it allows employees to be familiar with the types of controls and their meanings.

4.2.2 Risk assessment

The data analysis in the first line defines the extent of the risk assessment in the public finances and the lack of assessment matrix of the most significant risks. All Finance departments adopt a budget calendar before the start of the fiscal year; 97% have a program-oriented budget while 92% have programs with a numeric value of projects. All departments adopt programs before the adoption of budget, but only 38% have procedures for estimation and calculation of budget revenues. A high 67% estimate revenues before the budget adoption which increases the risk of overestimating revenues.

4.2.3 Control activities

79% of LGUs have an appointed chief accountant of control, but only 48% have prepared accounting policies for control activities. The high percentage of respondents (97%) providing verification of each control function leads in the end to an inefficient system of internal controls. This is related to the first principle “control environment” where a lack of staff in the finance department was detected, which has a negative impact on the “control activities” principle and the effectiveness of the internal controls.

4.2.4 Information and communication

92% of the Finance departments have established controls to monitor budget implementation and 69% report on budget implementation and accepted liabilities on a monthly and quarterly basis instead of on a daily or

weekly basis. The delayed reaction produces delayed communication between the first and second line, thus 77% of the management approves orders for capital investments based on projected amounts in the budget, whereas only 23% do that based on the report on the implementation of balance sheet items in the budget. This approach of taking responsibilities increases performance uncertainty as the obligations may exceed the actual level of sustained liquidity in LGUs.

4.2.5 Monitoring activities

The monitoring activities have been assessed through the contracts for capital investments where we found that all Finance departments monitor the implementation of the contracts, mostly (89%) in terms of value fulfillment of contracts and embedded quantities. A high 85% confirm that for each signed contract, funds have been provided in the budget before the organization of public procurement. This indicates that monitoring processes are satisfactory, and it guarantees that this system, at least regarding the contracts fulfillment, works in ways that will prevent damage to the budget.

4.3 Third line of defense – internal audit

Out of the total 40 surveyed LGUs, 22 internal auditors for them responded to questionnaires. When asked how many auditors according to the job classification are planned in the audit department, most of them or 64% report 2-4, 18% report 5-7 and more than 8 auditors. 50% have only one internal auditor, 45% have 2-4 and only 1% have 5-7 auditors. For these reasons the average annual performed controls in this complex process of internal controls are 1-2 in the last 3 years.

86% report they keep records of all audits and all auditors make recommendations for improvement of internal controls. 68% of the LGUs' management act upon the recommendations of the internal auditor, which corresponds to the questions in the first line. In 54% the auditors do not monitor the implementation of the risk strategy and a high 68% are not involved and do not express any opinion on the quality of the mapped risks. 82% of internal auditors disagree with the evaluation by top management, and they all agree that an audit committee should be formed in order to represent the internal auditors' rights.

4.4 Hypotheses testing

In the first and second line of defense model the analyzed data was tested by using CAM methodology to assess the controls in the organization. Evaluation of the internal audit effectiveness and confirmation of the hypotheses was based on the analysis of respondents' answers.

According to CAM, for both lines (first and second line) of the model, the objectives of internal control were defined. For the research's purposes, the CAM principles were adjusted so that the internal control assessments, depending on the percentage of negative responses, were allocated on a scale from 1-appropriate (strong) to 5-inappropriate (weak). Additionally, due to the significance of the "N/A not applicable" answers, one percentage point for each answer was added.

Table 1. Criteria for evaluation of internal control (1-appropriate, 5-inappropriate)

Percentage of negative answers (%)	Internal control assessment
0-19	1
20-39	2
40-59	3
60-79	4
80-100	5

Source: The authors' own work

The assessments of the elements of internal controls were adjusted to a risk weight in order to reduce the gap between positive and negative responses. For research purposes the assessment criteria for the elements of FMC have based upon negative "No" and unfavorable responses. The favorable and positive "Yes" responses have not been assessed and therefore each assessment has been adjusted to a risk weight.

Table 2. Risk weights

Priority	Control assessment	Risk weight
Low	1-2	5
Medium	3	4
High	4-5	3

Source: The authors' own work

The assessment of the internal control system in LGUs was performed in the finance departments and internal audit, with examination of two elements: the elements of FMC and elements of internal controls. The elements of FMC were examined according to the legal regulation, whereas the elements of the internal controls were examined in accordance with the CAM principles, FMC and internal controls design and performance.

Data calculation was performed in accordance with the criteria and weights for assessment of the FMC elements that have been defined by our own judgement according to the research needs and the CAM methodology principles for internal control assessment.

The assessment of the design and performance of the internal controls system was conducted by measuring the cross-data in the first and second lines of defense. In accordance with the CAM principles and the narrowed observation range of internal controls in LGUs (Finance departments), the elements that were important to investigate the problem were separated.

Table 3. Assessment of the internal controls system in LGUs (n≈40)

	Rules	FMC elements		Control elements	
		Grade	Adjusted grade	Grade	Adjusted grade
(I) Design of the internal controls system					
Relevance	a	1,50	1,50	3,75	3,69
Timeliness	b	2,00	1,89	-	-
Strength:(average c.1 - c.6)	c		1,98		3,71
Discretion	c.1	-	-	4,33	4,20
Segregation	c.2	2,25	2,00	3,50	3,43
Integration	c.3	-	-	3,00	3,00
Automation	c.4	1,50	1,50	4,50	4,50
Traceability	c.5	-	-	3,40	3,12
Adaptability	c.6	2,50	2,44	4,00	4,00
Overall rating of design (average a+b+c)			1,79		3,70
(II) Performance of the internal controls system					
Discretion	d	1,67	1,67	4,00	3,90
Compliance	e	1,86	1,79	4,00	4,00
Overall rating of performance (average d+e)			1,73		3,95
Overall rating of the internal controls system (average I+II)			1,76 (2)		3,83 (4)

Source: The authors` own work

FMC elements are assessed with two (2) which means an appropriate level of established regulations on internal controls with need for improvement in some areas. Elements of internal control are assessed with four (4) which means an inappropriate internal control system that should undergo substantial improvements.

1. The basis for H1 support has been the calculation of the following elements: established strategy, appointment of CRO for risks, risk mapping and job staffing in the finance departments. The elements in the section performance of controls, under the criteria discretion, were assessed with grade 3,90 (Appendix A 3). The grade (3,90) confirms our expectations for H1 that the LGUs' management does not possess or has insufficient knowledge of the term risk management.

On the other hand, the LGU management takes all necessary measures to implement the required legislation for FMC. CAM calculations indicate solid discretion with 1.67 and compliance with 1.79 with the regulations on risk management. In comparison, the grades were analyzed between the regulation (FMC) and the implementation (controls). There is an obvious gap between regulation versus discretion (1.67) and compliance (1.79) versus implementation, and discretion versus (3.90) and compliance (4.00). The grades confirm our expectations of H2 in the first line of defense, that the LGUs' managements do not pay enough attention to efficiently manage the risks associated with LGUs.

Supported hypotheses (H1 and H2) indicate that the management is oriented towards satisfying the legislation instead of quality risk management of LGUs which increases the risk of damage in the public funds.

2. Due to the correlation of data for examining the problem in the second line of defense, a unified opinion was expressed to test the expectations of hypotheses (H3 and H4). Correlation was detected between the required number of trained employees and their impact on the quality of the internal control system.

Internal control's relevance was negatively graded 3,69 which confirms the fact that in most LGUs (62%) there is an absence of discussion regarding the risk factors as well as activities to mitigate the most significant risks. The overall rating for control design was complemented with the element control strength, which according to CAM methodology is negative (3,71) since it indicates that the controls are not strong enough to mitigate the risks' effects. Control discretion was impaired due to the significant number of LGUs who do not map the risks and do not rank them by importance. Segregation was graded 3,43 which impairs the strength of controls due to the fact that an employee usually performs two or more than two control functions. The element automation has a weak grade of 4,50. Accordingly, the overall rating (4) for the efficiency of the internal controls system is unfavorable.

3. To verify the expectations of H5 and H6 answers of internal auditors were analyzed. Results indicate partial support of H5 and H6 because analyzed data indicate partial independence of internal auditors in LGUs. Internal auditors agree to be evaluated according to the Law on Public Internal Financial Control (LPIFC) and to have an established Audit Committee to protect their rights.

5. SUMMARY AND RECOMMENDATION

LGUs in the Republic of Macedonia represent secondary, decentralized government with financial responsibilities and have been established for an efficient treatment of local needs. LGUs are obliged to finance projects in accordance with the legislation and the citizens' needs. The usage of public funds is strictly regulated by law and regulations. However, there is still a dilemma how these funds can achieve more public benefit. Therefore, the achievement of more efficient risk management in public finances is of great significance.

Research results on the effectiveness of risk management in LGUs in the Republic of Macedonia indicate the following:

- management is oriented towards satisfying the legislation instead of quality risk management of LGUs which increases the risk of damage in the public funds;
- internal controls in LGUs are not functioning, partially achieve control goals and function in a way that does not satisfy the requirements of the established regulations and
- internal auditors in LGUs are partially independent in their work

LGUs comply with the law and regulation and have introduced acts regarding risk management and internal controls, but the internal control system in LGUs does not correspond to the established rules and procedures. It may be concluded that the risk management efficiency in the public finances of LGUs is weak. To overcome the problem, this research promotes the model "three lines of defense". The model offers the internal control system in LGUs a good opportunity to function in accordance with the established regulations.

Based on the results from this research some recommendation are offered for policymakers in order to improve the controlling process and the public finance management in the local government in Macedonia:

- to impose a necessity of a risk management department in public sector administration.
- to enforce a compulsory risk register within the public sector organization.
- to impose an obligation of maintaining a full capacity of controlling staff and to provide a high quality capacity of the personnel.
- to promote an audit committee for local governmental units with involvement of the controlling risk personnel and with broad authorization for protection of the integrity of the internal auditors.
- to initiate an implementation of the “Three lines of defense” model for managing risks in the public sector.

6. RESEARCH PROBLEMS AND LIMITATIONS

The focus of interest of this research have been the public finances of LGUs. Data reliability might have been at a higher level if respondents from other departments (public procurement, urban planning, environment etc.) were included.

This research covers urban and rural municipalities with different capacities. Therefore, responses from smaller rural municipalities might have affected the hypotheses results.

CAM methodology provides an objective opportunity to examine and evaluate risks and controls, but it is relatively new (2014) and there is not sufficient evidence of its applicability.

References:

1. CIPFA and IFAC: International Framework: Good Governance in the Public Sector, CIPFA, IFAC. 2014.
2. COSO: Internal control-Integrated framework. American Institute of Certified Public Accountants, The Committee of Sponsoring Organizations of the Treadway Commission. 2013.
3. De Koning, R.: PifC, Public Internal Financial Control, a European Commission Initiative to Build New Structures of Public Internal Control in Applicant and Third-Party Countries, Sint Katharina Lombeek, Belgium, 2007.
4. Dittmeier, C. and Casati, P.: Evaluating Internal Control Systems: A Comprehensive Assessment Model (CAM) for Enterprise Risk Management, Altamonte Springs, The Institute of Internal Auditors Research Foundation, 2014.
5. Drennan, T. L, McConnell, A. and Stark, A.: Risk and crisis management in the public sector. 2nd ed. Routledge, 2014.
6. ECIIA and FERMA: Guidance on EU 8th company law directive, art 41, part 1, Brussels, 2010.
7. Ernst & Young: Maximizing value from your lines of defense, A pragmatic approach to establishing and optimizing your LOD model, 2013.
8. European Commission: Welcome to the world of PIFC, Brussels, European Commission, 2006.
9. Ministry of Finance of R.M.: Annual Report on the system of public internal financial control functioning. Skopje, 2015. Available on: http://www.finance.gov.mk/files/u249/Godisen%20izvestaj%20za%202014%20godina%20OPST%20DEL_0.pdf
10. SAO: Accountability Modules, Data Analysis:Describing Data – Descriptive, Statistics. Texas State Auditor’s Office, Methodology Manual, rev. 5/95, 2013.
11. State audit office: Annual Report for 2014, Skopje, 2014. Available on: <http://www.dzr.mk/en/Uploads/SAO%20Annual%20Report%202014.pdf>

UDC 336.71:658.155(73)
336.71:658.155(4-672 EU)
336.71:658.155(497.7)
Original scientific paper

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CHANGES IN THE BANKS' PERFORMANCES AFTER THE CRISIS: A COMPARATIVE STUDY

Abstract

The aim of this research is to evaluate the evolution of performances of the largest banks in different regions worldwide after the crisis in the 2008. For measuring the performance of the banks we have examined: quality of assets, liquidity, solvency and profitability. We have analyzed the 3 largest banks from United States, European Union (Germany, Austria, Slovenia and Greece) and Macedonia. Our empirical results show that various trends appear during the examined period, when the largest U.S. banks had steadily trended upwards, especially in profits, while their European peers are far behind them, and Macedonian banks standing in the middle of the trends.

The key words: bank performance, banks, financial crisis

JEL classification: G21, G01

Introduction

The banking system is the main channel for financing of businesses all over the world, yet in the USA markets play a larger role in transactions between providers and users of capital. And because of the process of globalization, banks nowadays are more vulnerable to shocks and risks than ever.

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During the world economic crisis in 2008 and the post-crisis period, the banking industry suffered one of the biggest damages ever. Profit before tax of top 1000 global banks has dropped 85.3% or \$667 billion in absolute amount in 2008¹.

This crisis not only reduced the growth of the banking sector but also facilitated a complete collapse of some large financial institutions. In the post-crisis period, banks are challenged to reach the growth rate of the pre-crisis period and at the same time find a way to use this period as an opportunity for differentiating the financial markets. An unwelcomed legacy from this period is that the banks will have to accept the enhanced regulation, straighten capital adequacy and the new and inflexible risk management standards. Whereas before the financial crisis, both US and European banks reported record profit levels, only US banks are beating those nowadays, while their European peers are struggling to sustainably stay above the zero line².

Weigand³ results are in line that U.S. banks' revenue growth, profitability and levels of balance sheet capital recovered promptly from the financial crisis of 2008-2009 and that European banks continue lagging in all three categories. The financial condition of U.S. commercial banks contrasts sharply with that of their European counterparts. Namely, 15 of the 20 largest commercial banks in the U.S. posted record-setting revenues, almost 12 of these banks had record profits in this period⁴.

The gap reason at performances of US vis-a-vis EU banks, according to Ayadi, Arbak and de Groen⁵ is the persistent economic disparity between stronger and weaker Eurozone countries and the European Central Bank's painfully slow efforts to reduce exposure to systemic risk, compared with countries such as the U.S. and the U.K.

The financial and economic crisis strongly influenced the entire world, however, Central and Eastern Europe (CEE) was particularly severely affected. According to Gardo et al ⁶, the CEE banking sectors were fairly resilient to the

¹ Choudhary, S.K.: Trends in the Global Banking Industry, *Capgemini analysis*, p. 3-4. 2012.

² Schlidbach J.: Bank performance in the US and EU. Deutsche Bank research. 2013.

³ Weigand R.: A tale of two banking systems: the performance of U.S. and European banks in the 21st century. *Investment Management and Financial Innovations*, 12(1-1). 2015.

⁴ Weigand, R.: The Recovery of US Commercial Banking: An Analysis of Revenues, Profits, Dividends, Capital and Value Creation, *Banks and Bank Systems*, 8 (3), 2013.pp. 76-88.

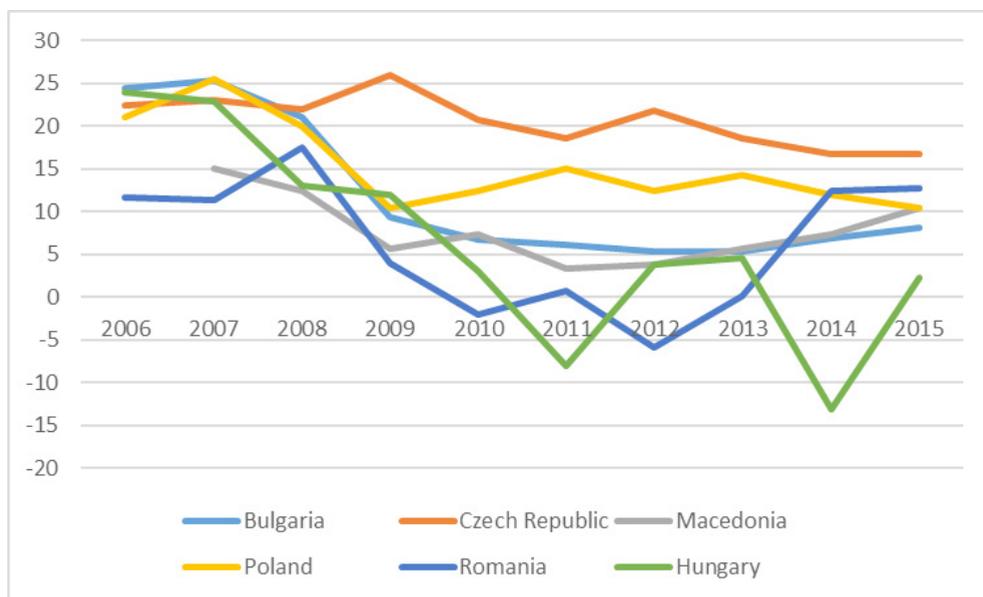
⁵ Ayadi, R., Arbak, E., and W. Pieter de Groen: Regulation of European Banks and Business Models: Towards a New Paradigm? Center for European Policy Studies, Brussels. 2012.

⁶ Herrero S.G., Sandor G, Reiner M., Luis M. and José María S., The Impact of the Global Economic and Financial Crisis on Central Eastern and Southeastern Europe (CESEE) and Latin America (July 7, 2010). Banco de Espana Occasional Paper No. 1002.

global economic and financial crisis until autumn 2008. With Josifidis et al.⁷ emerging countries with smaller pre-crisis vulnerabilities went into recession later and exited earlier, thus suffering less in output decline during the crisis. Radulescu and Tanascovici⁸ results of the performed analysis in CEE countries show that both the financial reform index and the index regarding bank reform, have a positive impact on the bank performance indexes (cost of intermediation, operational performance and return on assets).

Figures 1 and 2 present ROE and ROA ratios of selected CEE countries included Macedonia from 2006 to 2015. The data show that the banks in Czech Republic, Poland, Romania, Bulgaria, Hungary and Macedonia in 2015 did not still reach the ROE and ROA values before the crisis.

Figure 1 Evolution of ROE of CEE banking systems (percent), 2006-2015

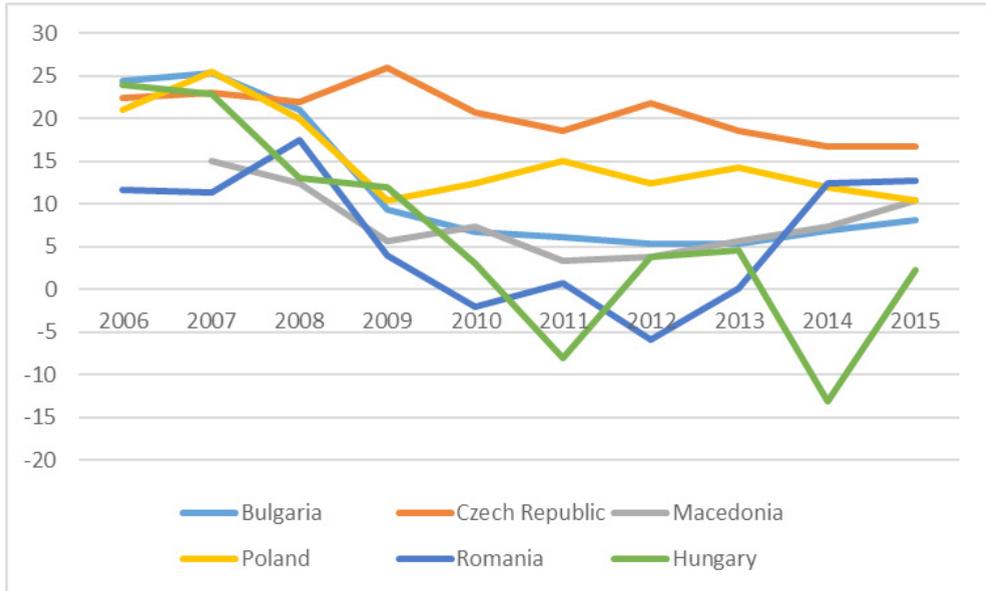


Source: Authors based of the data from Raiffeizen CEE Banking sector report 2016 and Central bank of RM annual reports on financial stability in Republic of Macedonia

⁷ Josifidis, K., Allegret, J.-P., Gimet, C., Pucar, E.B., Macroeconomic policy responses to financial crises in emerging European economies. *Econ. Model.* 36, 2011. pp 577–591.

⁸ Radulescu M. and Tanascovici M. Profitability of the CEE banknig systems during the crisis period. *Annals of the University of Petroșani, Economics*, 12(1), 2012. pp 274-291.

Figure 2 Evolution of ROA of CEE banking systems (percent), 2006-2015



Source: Authors based of the data from Raiffeizen CEE Banking sector report 2016 and Central bank of RM annual reports on financial stability in Republic of Macedonia

Due to the different levels of the banks performances in US, EU and CEE countries, we have examined the evolution of the performances of 18 largest banks in selected countries using ROE and ROA and other indicators from their annual financial reports from 2004 to 2014.

The structure of the rest of the paper is as follows: Section 2 reviews the relevant literature, after which the data and empirical design are described. Section 4 discusses the empirical results and Section 5 concludes.

1. LITERATURE REVIEW

The global financial crisis had a significant impact on the performance of financial institutions and the competition within the financial systems⁹. According to them, the crises brought back, both on the policy agenda and in the academic literature, the discussion of the sensitive relationship between macroeconomics and the commercial banks' performances.

⁹ Andriesa A.M., and Ursua S.G.: Financial crisis and bank efficiency: An empirical study of European banks. Economic Research VO L. 29, NO. 1, 2016.

Carr¹⁰ explained the new market position of the banks: difficulty to achieve revenue growth, low interest rates and regulatory restrictions and he concluded that banks need to re-examine and improve the ways in which they measure and report business performance.

There is a wide discussion and different opinions among the researchers about the co-relation between the size of the banks, their performances and the obtained results. Some academics believe that larger banks enjoy a competitive advantage with ability to outperform the S&P 500, particularly during an economic contraction¹¹ Pasiouras and Kosmidou, 2007. We have based our analysis on the largest bank in the selected countries in this research.

According to Efthyvoulou and Yildirim¹² the deepening crisis in the advanced European countries and continuing banking fragilities, requires a state support action for a re-assessment of the results at the market competition in the financial services industry.

Gueldenberg¹³ explains the reasons for underperforming of the European banks compared to their US counterparts in recent years: European banks certainly operate in a more challenging environment, as the EU is only slowly recovering from the crisis, capital requirements are set at more prudent levels than in the US, and interest rates are at all-time lows. However, besides these macro-factors, there are some opinions that the industry's large size is the main reason for its low profitability.

2. METHODOLOGY

In this paper we compare the performances of the banks from the US, groups of the EU countries and Macedonia using selected indicators for liquidity, assets quality, financial strength and profitability. The examination has been made for the period of 2004-2014, covering the years before, during and after the crisis.

¹⁰ Carr J.: Performance Measurement in the Banking Industry. Business Finance. 2012.

¹¹ Filbeck, G., Preece, D. and Zhao, X.: Top Performing Banks: Size Effect and Economic Cycles. *Journal of Investing*, 20.2-2011. pp. 19-32, and Pasiouras, F. and Kosmidou, K.: Factors influencing the profitability of domestic and foreign commercial banks in the European Union, *International Business and Finance*, 21, 2007. pp 222-237

¹² Efthyvoulou, G., & Yildirim, C.: Market power in CEE banking sectors and the impact of the global financial crisis. *Journal of Banking & Finance*, 40, 2014. pp 11-27.

¹³ Gueldenberg J.: Banking in Europe: Too Many Players, Too Little Performance? 2017.

We have measured the banks financial strength using the regulatory total capital ratio, computed as the sum of Tier 1. We have measured banks` liquidity using loan-to-deposit ratio by dividing the bank`s total loans by its total deposits and expressed in percentage. For measuring the banks` assets quality we have used non-performing loans to total gross loans ratio by dividing the value of non-performing loans by the total value of the loan portfolio.

This paper analyses bank performance in terms of its capacity to generate sustainable profitability. Traditional performance measures are return on assets (ROA), return on equity (ROE). We calculate the return on assets (ROA) by dividing the net income for the year by average total assets. Return on assets was calculated by dividing the net income by average total assets.

We have used descriptive statistics in our research. We have analyzed the 3 largest banks from the selected countries: US, EU (Germany, Austria, Slovenia and Greece) and Macedonia, 18 banks in total. Germany is a leading economic force within the EU and has the strongest banking sector together with France. The Austrian banking system has the highest share in ownership of banks in CEE, 22% in December 2016¹⁴. Slovenia is a new EU member with a weak-banking system, and Greece is the EU`s 15 country-member whose banking system faced a steadily increasing number of non-performing exposures since the onset of the economic crisis. US are a part of the analysis as a country where the financial crisis has started and whose banking industry remarks the fastest recovering with significantly improved earnings during the post-crisis period. And Macedonia is a representative of developing countries of the CEE region.

All bank-level data used are obtained from the selected banks` web sites, and the data for the banking systems` characteristics are taken from the web site of the World Bank, Federal Reserve Economic Data, European Central Bank and Central bank of Macedonia reports.

¹⁴ according to Oesterreichische Nationalbank: Facts of Austria and its banks. 2017

3. PERFORMANCES OF THE BANKS IN EU, US AND MACEDONIA

3.1. Performance of the German banks

The three examined German banks demonstrate similarity only in increasing the capital ratio in 2014 comparing to 2007. Deutsche bank demonstrates increasing of non-performing loans while Commerzbank and Kreditanstalt fur Wiederaufbau (KfW) decrease their nonperforming loans during the years after the crisis.

The one thing that stands out from these figures is the stark differences in the loan-to-deposit ratios for the three largest banks. While Deutsche Bank was increasing its loans from 43 to 76 cents for every euro in deposits it has, and KfW from extremely 270 to highest 1,189, Commerzbank was decreasing its ratio from 104 to 88 cents to a euro. This is justifiable due to the fact that Deutsche bank was increasing loans in higher percentage than deposits, Commerzbank was increasing loans in lower percentage than deposits, while KfW deposits have seen notable deterioration in 2014 to 2007 with slight growth of loans in the same period. KfW is a special purpose bank and it funds itself mainly through the capital markets and deposits participating in total liabilities from 10, 49% in 2007 to 2.05% in 2014, the reason for extremely high loan to deposits ratio. We do not present this ratio in the figure bellow in order to present a technically correct comparison in other indicators of these three German banks.

The profitability of these banks, measured by ROA and ROE also shows different result. Deutsche bank and Commerzbank witness shrinkage in both profitability ratios, and KfW was recovering negative values of ROA and ROE in 2014 reaching highest values compared to the pre-crisis period. The federal government and the state own KfW, and it raises funds on the capital markets at low interest rates due to the public guarantee.

3.2 Performance of the Austrian banks

All three examined Austrian banks have the same trends in their liquidity, profitability, quality of loan performance and capital adequacy from 2007 to 2014. The regulatory total capital ratio Tier 1 displayed a U-pattern with the lowest point in 2006, i.e. before the crisis rather than during the

crisis, and it has risen to higher than 10% in 2014 for all three banks. The non-performing loans ratio increases to around 10% and loans to deposits fall after the crisis. The profitability of all three banks, measured by ROA and ROE, declines significantly after the crisis.

3.3 Performance of the Slovenian banks

The Slovenian banking system was among the worst hit by the global financial crisis and it remains highly vulnerable to continued credit deterioration and refinancing risks (IMF, 2012). The root of this problem is weak governance in public banks and an externally financed boom in lending to construction companies and management buyouts/corporate takeovers. Since the enterprises were largely financed by bank loans, losses of the enterprises accumulated on balance sheets of the banks in the form of non-performing loans. Non-performing loans ratio of all three examined Slovenian banks was worsened dramatically after the crisis, reaching higher of 20 percent. Tier one capital stood at 15 percent in 2014 for NLB and NKB, and only 7,03% for A Banka Vipava.

The loan-to-deposit ratio for the banks stands higher than 110% and signals that the banks' reliance on wholesale funding is excessive. The banks have poor performance in profitability, as well with ROA and ROE far lower in 2014 than in 2007.

3.4 The performance of the Greek banks

The current fiscal crisis, deposits outflows and deep recession of the Greek economy has further worsened the performance of the Greek banks. The increasing trend of non-performing loans in their loan portfolio resulted in drastic deterioration in the asset quality of their portfolios, and abrupt decrease in their profitability. The non-performing loans ratios of the examined Greek banks are between 20% and 39% and all of them have negative ratios of profitability in 2014 due to net losses in this year.

All three examined banks' solvency ratios improved further in 2014, mainly helped by the increases in capital and only the Piraeus Bank has lower ratios (12.4%) in 2014 in comparison to the euro area median ratio of 14,0%. The increased reliance on retail deposit funding, coupled with the moderate growth of credit to the economy, led to a decline of loan-to-deposit ratios of the three banks between 99% and 115% close to the Euro area median ratios of around 112% in the last quarter of 2014.

3.5 The performance of the US banks

The regulators have undertaken a series of measures to strengthen the banking system of the United States through improving the quality of regulatory capital and increased the level of risk-based capital requirements. The banking system is significantly more resilient today as a result of these reforms.

The non-performing loans ratios of JPMorgan Chase, Bank of America and Wells Fargo, the top three US banks by assets, was increasing during the examined period reaching values between 1,66% and 2,68%, yet far lower of this ratio in European union countries in 2014 (KPMG, 2017).

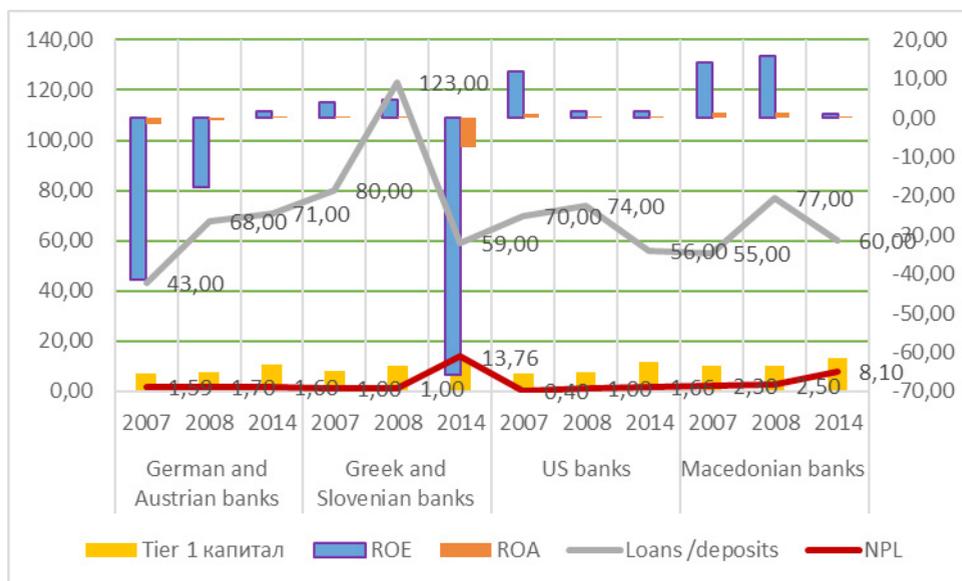
The retrenchment from the crisis is largely over, and the bank loan growth and risk appetite appear to have returned (Gruenberg, 2016), however the credit to deposit ratios of all three US banks was decreasing from 2007 to 2014 due to the deposit growth in the same period.

The bank earnings of JP Morgan and Wells Fargo have improved during the post-crisis period and the profitability ratios to 10% and 13.4%. Bank of America` profitability ratios are much lower in 2014 comparing to 2007 and in December 2016 (ROE 7.23%) it did not succeed to outperform the level of 2005 (ROE 16,51%).

3.6 The performance of the Macedonian banks

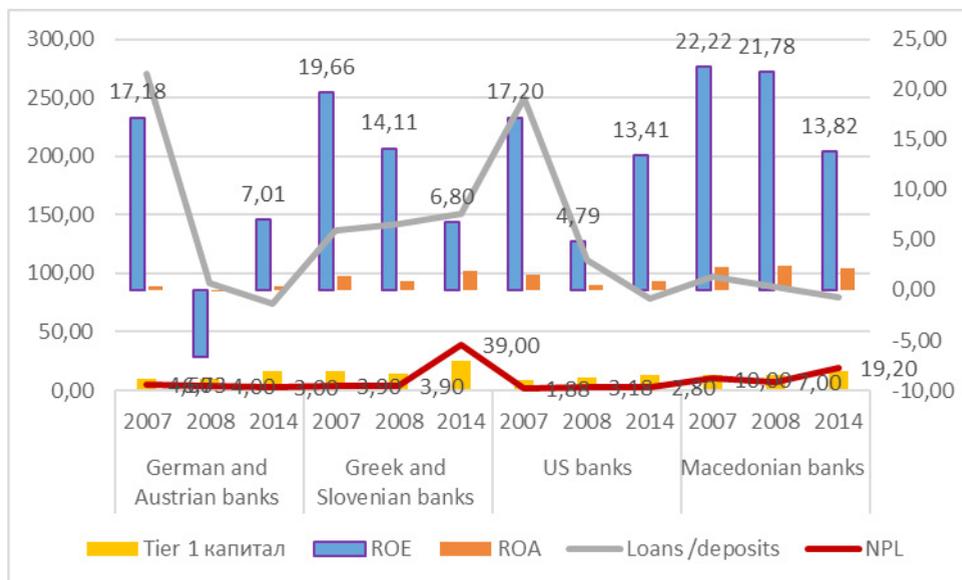
High credit growth from 2003 to 2008 and decline of the economic activities as a result of the global crisis increase non-performing loans ratio of the Macedonian banks and is a common trend with the largest three banks. The banks have non-performing ratio of 8.3% and 11.3% (NLB Tututnska and Stopanska banka) and Komercijalna banka has the highest ratio of 19.2%. The other common characteristic of these banks is increasing capital ratio, reaching levels from 13.3% to 16% in 2014. The loan to deposit ratios of the top three banks is slightly decreasing in this period. The reason is slower growth of the loans compared to deposits and increase of investment in government bonds in banks liabilities (from 1.3 p.p. with NLB to almost 14 p.p. with Komercijalna banka). The profitability of Stopanska banka and Komercijalna banka decreased in this period, more drastically with Komercijalna banka (ROE from 18.82% in 2007 to 1.03% in 2014) due to worsening of the loan portfolio.

Figure 3 Minimum level of indicators of selected sets of banks (%), 2007, 2008 and 2014



Source: Authors based on the data of the banks subject of the observation

Figure 4 Maximum level of indicators of selected sets of banks (%), 2007, 2008 and 2014



Source: Authors based on the data of the banks subject of the observation

The three sets of the examined banks demonstrate similarities and differences in the compared indicators, albeit there are and dissimilarity within the banks in the group and in the countries depending of the specific bank business strategy. All of the banks have steadily increased capital ratio due to stronger regulators requirements in all countries since the financial crisis.

The quality of assets of banks deteriorates after the onset of the global financial crisis. Maximum level of non-performing loans is noticed with selected Slovenian and Greek banks rocketed between 2008-12 as the weak economy had negative impact on highly indebted businesses. While the non-performing loan ratios increased in the US and EU from 2007 to 2009, the trends diverged radically from 2010 to 2014, with a rapid resolution of NPLs in the United States while Euro area banks continue to accrue bad debts.

All of the banks were tightening their credits during and after the crisis, and the sharpest decreasing of loan to deposits ratio was seen with the German (except of Deutsche bank), Austrian and US bank. Whereas, the share of loans was increasing in the banks' balance sheets, the growth of deposits in amount and as a share of total liabilities, as well, impacts the loans to deposit ratio to fall in the observed period (except of KfW).

The high stock of non-performing loans during the crisis and after the crisis hampers the banks' profitability with all observed banks, and at most with the Greek and Slovenian banks. Yet, ROA and ROE were increasing in the after-crisis period, they still did not reach the levels of before the crisis in 2014. The examined banks' profitability supports the profitability trend of the EU and US banks. Although, the EU banks had higher profitability before the crisis, the US banks outperform them in the period after the crisis.

The three largest Macedonian banks have substantially increased capital ratio, slightly increased non-performing loan, and decreased loans to deposits and profitability. The performances differ from the EU and US banks, and from the Slovenian and Greek banks, as well. They show moderate changes in the analyzed indicators, comparing to banks in other countries and regions.

Conclusion

We analysed the performance of three largest banks from the EU, US and Macedonia in the period 2004-2014, covering years before, during and after the crisis. We did so by exploring selected indicators for measuring the banks solvency, liquidity, profitability and quality of assets.

We found similarities and differences between countries, yet between banks in a single country. Based on the analysis of the indicators we made several conclusions:

- All examined banks substantially increase capital ratio due to a rigorous regulation to maintain a certain level of the banks` capital.
- The analyzed banks have increased their funding through customer deposits, and they have reduced the share of loans in total assets. Both of these developments contribute to a higher stability of the banks.
- The ratio of non-performing loans to total loans of the analyzed EU banks is still on a high level in 2014, which implies that the effects of the crisis are not yet terminated in full. Non-performing loans as a share of total loans decreased for three largest US banks due to the positive lending environment.
- The US largest banks have recovered the profitability and surpassed their EU peers in the last years.
- It seems that the key challenge of the European banks is the prolonged period of low profitability in the sector, and the banks` profitability has recovered somewhat recently, it still remains at very low levels.
- The biggest Greek and Slovenian banks have underperformed indicators comparing to the others biggest banks subject of analysis.
- The Macedonian largest banks have higher non-performing ratio (in minimum and maximum amounts) and lower loans to deposits ratio comparing to the US and German and Austrian banks. Their maximum and minimum amounts of Tier 1 ratio are higher than with the US banks, and have higher maximum than with the German and Austrian banks. They are more profitable than the German and Austrian banks and close to the US banks.

References :

1. Andriesa A.M., and Ursua S.G.: Financial crisis and bank efficiency: An empirical study of European banks. *Economic Research VO L. 29, NO. 1, 2016.*
2. Ayadi, R., Arbak, E., and W. Pieter de Groen: *Regulation of European Banks and Business Models: Towards a New Paradigm?* Center for European Policy Studies, Brussels. 2012.
3. Carr J.: *Performance Measurement in the Banking Industry.* Business Finance. 2012. Available from: <http://businessfinancemag.com/treasury/performance-measurement-banking-industry> [Accessed 25.04.2017]
4. Choudhary, S.K.: Trends in the Global Banking Industry, *Capgemini analysis*, p. 3-4. 2012. Available from: http://www.capgemini.com/resource-file-access/resource/pdf/Trends_in_the_Global_Banking_Industry.pdf [Accessed 15.12.2016]
5. Efthyvoulou, G., & Yildirim, C.: Market power in CEE banking sectors and the impact of the global financial crisis. *Journal of Banking & Finance*, 40, 2014. pp 11–27.
6. Filbeck, G., Preece, D. and Zhao, X.: Top Performing Banks: Size Effect and Economic Cycles. *Journal of Investing*, 20,2011. pp. 19-32.
7. Gueldenberg J.: *Banking in Europe: Too Many Players, Too Little Performance?* 2017. Available from: <http://themarketmogul.com/banking-europe-many-players-little-performance/> [Accessed 23.04.2017]
8. Josifidis, K., Allegret, J.-P., Gimet, C., Pucar, E.B., *Macroeconomic policy responses to financial crises in emerging European economies.* *Econ. Model.* 36, 2011. pp 577–591. Available from: [http:// dx.doi.org/10.1016/j.econmod.2013.09.035.](http://dx.doi.org/10.1016/j.econmod.2013.09.035)
9. Herrero S.G., Sandor G, Reiner M., Luis M. and José María S., *The Impact of the Global Economic and Financial Crisis on Central Eastern and Southeastern Europe (CESEE) and Latin America.* Banco de Espana Occasional Paper No. 1002. 2010.
10. Oesterreichische Nationalbank: *Facts of Austria and its banks.* 2017

11. Radulescu M. and Tanascovici M.: Profitability of the CEE banknig systems during the crisis period. *Annals of the University of Petroșani, Economics*, 12(1), 2012, 274-291. 2012.
12. Schlidbach J.: Bank performance in the US and EU. Deutsche Bank research. 2013. Available from: https://www.dbresearch.com/PROD/DBR_INTERNET_ENPROD/PROD000000000320825.pdf [Accessed 05.01.2017]
13. Weigand, R.: The Recovery of US Commercial Banking: An Analysis of Revenues, Profits, Dividends, Capital and Value Creation, *Banks and Bank Systems*, 8 (3), 2013. pp. 76-88.
14. Weigand R.: A tale of two banking systems: the performance of U.S. and European banks in the 21st century. *Investment Management and Financial Innovations*, 12(1-1). 2015.

MARINA ARSOVSKA *

CLUSTERS AS A FACTOR FOR ATTRACTION OF FOREIGN DIRECT INVESTMENTS

Abstract

In the new era of globalization, followed by liberalization and deregulation, contemporary concept of competitiveness is determined by productivity, which is a function of the ways companies compete, their capability to apply sophisticated methods and advanced technology and to offer unique products with high added value and diversified services.

Empirical evidence confirms that industrial clusters through their multidimensional model of networking and information exchange can enhance competitiveness through driving innovation, productivity growth and stimulating formation of new businesses. Foreign direct investments are seen as an important factor for enhancing competitiveness by transferring know-how and new technologies.

This paper analyses the impact of the clusters in attracting foreign direct investments, drawing conclusions and recommendations for Republic of Macedonia. Main conclusions of the paper are that automotive cluster has put Republic of Macedonia on a map of attractive FDI location for automotive industry. Number of foreign companies decided to locate their economic activities in the country, thus, contributing to the overall competitiveness of the country. Further steps are needed to place the country in the worldwide supply chains and to further strenghtent the links between local suppliers and foreign companies with final goal- attraction of more FDI and further rise of the automotive cluster.

Key words: clusters, foreign direct investments, competitiveness

JEL Classification: F21, F23

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Introduction

In times of accelerated technical and technological changes, globalization and liberalization, the concept of competitiveness is emerging as a new paradigm of development. Defining competitiveness as an ability of the national economy to produce goods and services that will pass the test on the international market while simultaneously increasing the real incomes of its citizens, it follows, that, competitiveness at national level basically relies on competitive companies from the national economy who are able to generate an increase in productivity necessary to achieve higher incomes and increase of employment.

The same will be explained by Michael Porter of the Harvard Business School, whose known aphorism is that national prosperity is created and not inherited and that the final economic and development phase is an economy driven by innovation, which is characterized not only by high efficiency, but, also, by the creation of products and services with unique value.¹ The central hypothesis in the Porter's model is that national competitiveness is a result of the competitiveness of enterprises, while the competitiveness of enterprises, in turn, requires an innovative milieu to succeed.

On the other hand, the trend of globalization and the liberalization of world trade flows also imposes capital mobility. The countries of the world liberalize their policies on foreign direct investments, with the aim of attracting them, driven by the positive effects that they bring to the growth of competitiveness.

Industrial clusters, as a broad phenomenon, are been connected with many fields of economics, including FDI-Foreign direct investments. Research on this connection between these two has shown that FDI and cluster are inter-related, both having effect on each other.²

On one hand, FDI helps the expansion and development of clusters in a host country. On the other hand, clusters have had significant role in attracting foreign direct investments and, were, therefore, one of the factors for improving the competitiveness of certain industry.³

¹ Porter, M.E. "The competitive advantage of nations", Free: New York, 1990, Klaus Shwab, Global Competitiveness Index Report 2016-2017, World Economic Forum

² Gugler Phillippe and Brunner Serge, FDI Effects on National Competitiveness: A Cluster Approach, International Advances in Economic Research, vol 13, issue 3, 2007, pg. 268-284

³ De Propriis Lisa, Driffield Nigel, The importance of clusters for spillovers from foreign direct investments and technology sourcing, Cambridge Journal of Economics, Volume 30, Issue 2, 2006, pg 277-29

This paper aims to analyze the role of clusters in attracting foreign direct investment. In the first chapter we will define clusters, as well as the Porter's concept of competitiveness as well as key factors that motivate investors to locate their economic activities in a particular location. The second chapter will be devoted to the role of clusters in attracting foreign direct investments and the third chapter analyses Automotive Cluster in Republic of Macedonia, drawing conclusions for further development of the cluster in direction of further attraction of FDI and improvement of the competitiveness of the automotive industry. Starting with theoretical approach of the concept of clusters, and the theory behind the tendency of certain location to attract FDI, through case study analysis of automotive industry in Republic of Macedonia, we use the comparative analysis and then the induction method to draw conclusions on the role of the automotive cluster as a factor for attraction of FDI.

1. CLUSTERS AND PORTER'S THEORY OF COMPETITIVENESS

The phenomenon of the industrial clusters, especially in recent decades, widely penetrated into the sphere of economic study related to development, especially in terms of the role of small and medium enterprises and exports, thanks to some significant, empirically validated experiences and achievements in the practice of growing number of countries in the world. Thus, the European regions have accepted the cluster concept with enthusiasm, and the same practice has been adopted by many US federal states. Developing countries have also adopted Porter's cluster model in their regional and national development policies.

In the broader sense of the word, and yet precisely, the cluster can be defined as "sectoral and geographical concentration of firms"⁴. With this concentration of firms, in fact, the benefits arise from the external economy, pointed out by Alfred Marshall, which arise thanks to:⁵

- Supply provided by numerous producers of raw materials, components for installation (semi-products), spare parts or equipment;
- The available workforce with specific, professional qualifications and knowledge;

⁴ John Humphrey, Hubert Schmitz, "*Principles of Promoting Clusters and Networks of SME's*", SME Programme, UNIDO, October 1995, pg.8

⁵ Prof PhD Vladimir Petkovski, "Industrial areas and industrial clusters: from Alfred Marshall to Third Italy", Faculty of Economics, Skopje, 2004

- Concentration of marketing and sales experts outside local or national markets and
- Concentration of experts for specialized services in the field of technology, finance and accounting.

In his paper “Clusters and the Economy of Competitiveness” of 1998, Porter will define clusters as one conglomerate of:⁶

- interconnected industries including suppliers of specialized inputs, equipment service providers, and specialized infrastructure;
- distribution channels and consumers, manufacturers of complementary products and companies connected on skills, technologies and joint inputs bases and
- related institutions such as: research organizations, universities, standardization organizations, education and training, and so on.

At the beginning of the 90s, Harvard Business School professor Michael Porter developed the theory of competitive advantages, published in his particularly influential work *The Competitive Advantages of the Nations*.

Namely, Porter explains that in traditional theories, the competitive advantage is predetermined by the abundance of factors of production such as land, natural resources and the labor force. The countries achieve comparative advantages in those parts of the industry which uses intensively abundant natural resources. Porter believes that classical comparative advantage theories are unable to provide a satisfactory explanation for modern industries and sectors in the economy in contemporary conditions of globalized competitiveness and emphasized power of technological innovation. One of Porter’s aphorisms is that national prosperity is created, not inherited, which directly contradicts with the theory of comparative advantages, according to which the abundance of resources predetermines regional and national competitiveness.

According to Porter, the cluster networking of firms affects competitiveness in three ways:⁷

- By increasing the productivity of cluster firms. This is achieved through increased access to specialized inputs and specialized work-force; increased access to information, institutions and public goods, as well as through stimulation of complementarity;

⁶ Porter Michael, *Clusters and Economics of Competition*, Harvard Business Review, 1998, pg 2

⁷ Bolland Alex, “*Industrial clusters: Identification and Public Policy*”, Working Paper 09-02, University of Sussex, 2002 pg.2

- By increasing the innovative capacity of cluster firms. This is a result of the increased diffusion of technological knowledge and innovations. The competitive pressure from rival cluster firms drives the innovativeness in firms, which stimulates the growth of productivity.

- By stimulating a high rate of formation of new businesses in the cluster as a result of the stimulated entrepreneurial spirit in the cluster, which stimulates the growth and strengthening of the cluster.

Starting from the definition of competitiveness of certain businesses as the ability of its industry for innovation and improvement, and developing his theory of “national diamond”, Porter pointed out, that, clusters should be a central element in all competitive development programs in developed, as well as in developing countries. Porter proposed his “diamond” as an analytical tool for assessing the quality of the business environment in a particular location or cluster. In the same clusters progress through four dimensions:⁸

- Favorable factor requirements (resources) including human, physical, capital resources, knowledge and infrastructure. In order to improve productivity, it is necessary to improve the efficiency, quality and specialization of the inputs in function of the respective clusters.

- Strong and sophisticated domestic demand. The presence of sophisticated and influential domestic demand encourages companies to innovate continuously in order to maintain leading market positions. Consumer cooperation is crucial in creating products that will meet their needs

- A local base of related and supporting industries. The presence of capable, specialized local suppliers is extremely important in providing cost-effective efficient inputs.

- A competitive environment that stimulates the productivity of firms. The presence of competing firms motivates firms to innovate in order to diversify from rivals.

One of the important determinants of national economic development is the capacity of the national economy to attract foreign direct investments. And while this is determined by many factors which are preconditioned (geographical location, availability of natural resources, national legislation, etc.), Porter’s theory is that raising the productivity of the factors of production through more investment is a factor for improving the attractiveness of certain location. Geographic and sectorial concentration of inter-related firms can dramatically influence the transformation of certain economy into an attractive location for business activities.

⁸ Porter, M.E. “The competitive advantage of nations”, Free: New York, 1990, pg. 71-130

2. CLUSTERS AS A FACTOR FOR FDI ATTRACTIVNESS

If we generally agree that foreign direct investment is vital to the economic development of a particular local community or region, then we need to look at the phenomenon of attractiveness of the cluster for the same. In that context, high-level clusters, such as London as a financial center or the Silicon Valley, represent true magnets for high-quality investments. Given the fact that they are the leading centers in the given industries, they tend to attract all the key players from home and abroad. A majority of investment banks have their global or European headquarters located in London, although very few of them are already British, while most of the companies in the information sector and the electronic communications sector have located their business activities in the Silicon Valley. And after their establishment, these foreign companies can strengthen the leadership of the cluster and contribute to its growth and development.

The question is- why the firms would decide to locate their business activities in a particular cluster. Or even more, why would certain companies want to locate close to their competitors. In part, as recalled and exacerbated, the answer lies in the effects of the economy of agglomerations - a specialized workforce, specialized suppliers and knowledge transfer. But, to a large extent, the influence of the decision has the so-called “isomorphic” behavior - expressed in the language of institutional theory. For example, it is very important for the banking industry to be present in London, because it signals “membership” or belonging in the industry for clients or other clients. More important, the two theories - the economic and institutional, support each other, which means, that, in the moment when the cluster establishes leadership in a certain area, it will attract investments, domestic and foreign too.⁹

The Irish pharmaceutical industry is a good example of the importance of clusters in attracting domestic and foreign direct investment. Foreign direct investment in the pharmaceutical industry in Ireland is 40 years old, since 1964, when Squibb, now Bristol-Myers Squibb, locates its production activities in Ireland. Today, 13 out of 15 top pharmaceutical companies in the world have significant activities in Ireland.¹⁰

⁹ Birkinshaw Julian, *Upgrading the Industry Clusters and Foreign Investments*, Int. Studies of Mgt, & Org., vol 30, no 2, Summer 2000, pg. 93-113

¹⁰ Yehoue, B. Etienne, *Clusters as a driving engine for FDI*, IMF Working Paper, October 2005, pg 5

In England, Alfred Marshall, having analyzed the willingness of companies in the production sectors to locate business near their competitors, major suppliers and customers, developed a concept of external economies of scale. In this way, he specified all factors conducive to the improvement of operational efficiency existing in the immediate environment. Marshall identified three main reasons why companies choose to locate their businesses in the vicinity of other companies operation in the same sector of the economy:¹¹

- Emergence of a market of specialized vendors and customers;
- Local labor markets that offer experienced and highly qualified work force;
- Diffusion of knowledge (knowledge spill-over) between companies. Concentration of production in industrial clusters allows companies (especially small and medium sized) to specialize, exploit joint infrastructure and mimic the best technological and organizational solutions used by competitors.

One of the most important attributes of clusters is innovation. Quality infrastructure of the R & D institutions plays an important role in the innovation process, which, ultimately, leads to improved competitiveness. Innovativeness, on the other hand, can, however, be a significant factor in attracting foreign direct investment. The effect of synergy is even greater - foreign direct investments themselves carry new technologies that stimulate innovation and make the region more attractive for investments for foreign investors. Innovation of several cluster companies by competition leads to increased productivity of the entire sector.¹² As a consequence, the production costs of the companies are reduced, a certain amount of funds is released and can be invested in other segments, thereby moving in this way the growth of the cluster. This, in turn, stimulates innovation with end-users, competitors and suppliers and encourages greater allocation of resources in research and development in order to gain and retain competitive advantages of innovation. Competitive pressure from foreign affiliates may be an additional incentive for domestic companies, encouraging greater efforts in the field of research and development, as well as the application of advanced, sophisticated

¹¹ Bojar Ewa, Boyar Matylda, Clusters-the concept and the Polish experience, Lublin University of Technology, *Revista Informatica Economica*, nr. 4 (44) 2007, pg. 15

¹² E. Bojar, M.Bojar, T.Zminda, The Clusters as a Factor for Attracting Foreign Direct Investments in Less Developed Regions, Lublin University of Technology, *Romanian Journal of Regional Science*, Vol.2, No 1, Summer 2008, pg. 62-65

technologies. Consequently, foreign direct investments are accelerating economic development, although one can not expect that they are the only factor for changing the technological base and the innovative capacity of the industry.

The available infrastructure (physical, soft, financial, institutional), the established connections within the cluster - the horizontal and the vertical, and especially the links in the supplier's chain, the social capital as the basis for building a trust, is a strong stimulus in the process of deciding on the location of investments, whether it be internal investments or, foreign direct investments. On the top of that, if national authorities are proactive and have a clear understanding of the uses of cluster networking through support policies and the promotion of the local business climate, the positive effects of cluster mergers in attracting domestic and foreign direct Investments are the expected result.

And here the question is raised which investments are more important for the growth of the local economy, whether domestic or foreign, and consequently, which ones should be directed towards policies and measures for their attraction. It is very important that all investments are important for economic development; however, for the development of dynamic competitiveness determinants, foreign direct investments are much more significant. Namely, it is known that, with foreign direct investments often comes an inflow of new know-how and technologies, which is one of the key determinants of growth of competitiveness. Hence, the multiplier effects of knowledge transfer through the opening of new local businesses, or the formation of chains of suppliers for the needs of foreign direct investments.

The presence of foreign capital, and especially the international aspect of the cluster structure, is usually a stimulus for attracting domestic investments. That's why the cluster is capable of growing and expanding on new markets. Cluster companies may use distribution channels developed by foreign multinationals, cluster members, to sell their products. Cluster fusion stimulates innovation, so that cluster members can take advantage of many opportunities and transform from standard component suppliers for multinational companies to producers of new, unique products with high added value.

Multinational corporations can be a reasonable stimulus for concentration of business activities in a particular location. Thus, many clusters, such as the ones in Singapore or Ireland, own their emergence to

the foreign direct investment. Others, for example, the automotive industry in Detroit or Hollywood, have been in home ownership for many decades, although they have recently undergone the trend of entry to foreign direct investment.

3. AUTOMOTIVE CLUSTER AS A FACTOR FOR FDI ATTRACTION IN REPUBLIC OF MACEDONIA

The production of parts and components for the automotive industry in the Republic of Macedonia has a traditionally significance for the economy, which is additionally and rapidly increased with the entry of foreign investments and the construction of several large factories in the last 6 years. The initiators of the sector in Macedonia in the 1960s with the growth of the “Crvena Zastava” in Serbia and the founding of several companies supplying parts for the vehicles from Kragujevac. Indeed, Macedonia has a tradition and experience in the production of parts for the automotive industry, which are at the disposal of potential investors and existing companies to accelerate their growth.

Bearing in mind that the role of the suppliers in the total vehicle is increasing continuously and at the moment it is estimated that the suppliers are responsible for 80% of the added value of the vehicles and provide about 50% of the investments for research and development of the automobile industry¹³, the involvement of the Republic of Macedonia in the European, and the world’s synergies for the supply of automotive parts is a real challenge. Large companies are looking for sites with lower production costs, which is a real opportunity for local companies to join the syndicate of suppliers.

The automobile cluster of Macedonia is a group of companies, manufacturers of automotive components, universities, research and development centers that work alongside the development of the automotive industry in Macedonia. The cluster was founded in 2009 under the auspices of the German Society for International Cooperation - GIZ.

The goal of the cluster is to contribute to the growth and development of the automotive industry in Macedonia through increasing competitiveness and production, as well as strengthening the synergies of suppliers by intensifying the cooperation between universities and companies in the Macedonian automotive industry.

¹³ www.clepa.eu, European Association of Automotive Suppliers

Majority of the companies comprising the automotive cluster are domestic. The cluster includes also academic institutions-Faculties of Mechanical and Technical Engineering, which is positive attribute; given the fact its main goal is raising competitiveness of automotive industry.

In the last decade, Republic of Macedonia has been strongly focused on the development of the policy of foreign direct investment, that is, promoting the country as a favorable destination for foreign investors, guided by the assumption that the new ones will bring new technologies and new knowledge, will improve the export structure and will contribute to the structural diversification of the Macedonian industry.

Mainly, the foreign direct investors were attracted by several factors: favorable position close to the EU markets, competitive work force, low taxes and social security contributions and the incentives offered in the Technological Industrial Development Zones.

One of the characteristics of the foreign direct investments in Republic of Macedonia is that the majority of companies which made a decision to invest in the country were from the automotive industry. Since the first investment of Johnson Controls in the TIRZ Bunardzik in 2006 to produce printed circuit board components, around 20 companies from the automotive industry located their manufacturing in Macedonia: Van Hool (bus assembly), Johnson Matthey (production of catalysts), Kemet (capacitors), Johnson Controls (cut and trim for car seat covers), Amphenol (signal harnesses for cars), Kromberg & Shubert (wire harnesses), TeknoHose (tubes), Dräxlmaier (wiring systems just-in-time and just-in-sequence) etc.

About 80% of the companies located in TIRZ are in the automotive industry, hiring around 13000 people and exporting 380 millions of dollars in 2015. Around 500 domestic companies cooperate with these automotive companies delivering services, raw materials and similar. ¹⁴ Number of companies rose from 30 to 50 in just few years. ¹⁵

In 2016 Association of automotive industry in within the Council of foreign investors was formed, as a modern automotive industry development platform, which will be able to offer an important concept for human resource development and management, transfer of technological and innovation processes, and to generate new local supply chains, given the fact that this sector is dominant with foreign investors, and new opportunities for cooperation with domestic suppliers are opening up.

¹⁴ Statement of Stefan Peter, President of Council of foreign investors, 01.11.2016, www.novamakedonija.com.mk

¹⁵ Invest in Macedonia, Automotive Components Sector in Republic of Macedonia, 2015

Conclusion

In the new era of fast technical and technological changes, globalization and liberalization of trade flows, competitiveness is highly determined by the ability of the companies from one national economy to innovate and create products with high added value. Foreign direct investments are more often seen as a factor for transfer of knowledge and know how, therefore as a factor for raising competitiveness of certain industry.

Empirical evidences show that geografic and sectorial concentration of inter-related firms can dramatically influence the transformation of certain economy into an attractive location for business activities. Despite the argument why would companies want to locate their activities near their competitors, clusters are becoming important factor for attraction of foreign direct investments. Availability of specialized resources, knowledge and technologies, local base of suppliers, as well as the motivation force, driven by the presence of the rivals is making the cluster an attractive location for business activities.

Automotive industry in Republic of Macedonia showed significant rise in the last decade, as a result to the foreign direct investments in this sector, accompanied by positive business climate. Republic of Macedonia is slowly turning into hub for automotive industry, stepping its way into the regional supplier chains. The next challenges for rise of the sector would be further establishment of connection with domestic companies for supply of inputs, development of R & D facilities and further improvement of the links with the academic institutions in the area of applied knowledge, as well as continuously improving the system of education to respond to the needs of the sector. Creating links with the clusters from the region will only improve the positions of the sector in the competitive European market. Another very important thing for the domestic companies is to keep flexibility and the ability to adapt to the new trends in automotive industry (production of hybrid, electric vehicles, “green” and lighter parts) in order to keep their position in the supply chains, even when, by some chance, foreign investors decide to leave the country.

One thing is evident –automotive cluster is becoming one of the lead sectors for foreign direct investments in Republic of Macedonia. Despite the arguments that main reason for the attraction of the investments in this sector

was the incentives from the government given in the TIRZ, fact is that major automotive companies decided to locate their activities in Macedonia instead of some other country in the region, contributing to the further rise of the competitiveness of Macedonian industry.

References:

1. Birkinshaw Julian, Upgrading the Industry Clusters and Foreign Investments, *Int. Studies of Mgt, & Org.*, vol 30, no 2, Summer 2000
2. Bojar, E., Bojar, M., Zminda, T., The Clusters as a Factor for Attracting Foreign Direct Investments in Less Developed Regions, *Lublin University of Technology, Romanian Journal of Regional Science*, Vol.2, No 1, Summer 2008
3. Bojar Ewa, Boyar Matylda, Clusters-the concept and the Polish experience, *Lublin University of Technology, Revista Informatica Economica*, nr. 4 (44) 2007
4. Bolland Alex, “Industrial clusters: Identification and Public Policy”, Working Paper 09-02, University of Sussex, 2002
5. www.clepa.eu, European Association of Automotive Suppliers
6. Gugler Phillippe and Brunner Serge, FDI Effects on National Competitiveness: A Cluster Approach, *International Advances in Economic Research*, vol 13, issue 3, 2007,
7. De Propriis Lisa, Driffield Nigel, The importance of clusters for spillovers from foreign direct investments and technology sourcing, *Cambridge Journal of Economics*, Volume 30, Issue 2, 2006
8. Humphrey John, Hubert Schmitz, “*Principles of Promoting Clusters and Networks of SME's*”, SME Programme, UNIDO, October 1995
9. Yehoue, B. Etienne, Clusters as a driving engine for FDI, IMF Working Paper, October 2005
10. Invest in Macedonia, Automotive Components Sector in Republic of Macedonia, 2015
11. www.novamakedonija.com.mk
12. Petkovski Vladimir Prof d-r, “Industrial areas and industrial clusters: from Alfred Marshal to Third Italy”, Faculty of Economics, Skopje, 2004
13. Porter, M.E. “The competitive advantage of nations”, Free: New York, 1990
14. Porter Michael, *Clusters and Economics of Competition*, Harward Business Review, 1998

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SPORT TOURISM AS THE MOST IMPORTANT ALTERNATIVE FORM OF TOURISM - STRATEGIES AND CHALLENGE

Abstract:

Although tourism is not a sport branch, it covers many sporting activities (sports recreation, sporting events, etc.). It can be concluded that tourism and sport are interrelated phenomena. Link between them dates back to the early beginnings of their development. However, the relationship between them in modern conditions changed significantly. Today, as a result of globalization comes to their connectivity and development of sports tourism. This alternative form of tourism is an important driver of tourism in general, which is confirmed by data from the World Tourism Organization that most funds spent on this alternative form of tourism. Tourists are increasingly opting to travel in order to ride and prefer. It is pronounced travel outside the country's borders in order to look at a sports game, to go skiing, cruising, etc., on the one hand activates the tourists, but the other side and relax and animate. In Western countries, the development of sports tourism is high, that is not the case with the Balkan countries. Taking into account the experiences of developed countries, special emphasis should be placed on the development of sports tourism. This form of tourism is the link for starting the development of an entirely new industry that is booming and which strives modern world and global economy.

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Keywords: sports tourism, globalization, strategies, challenges, development.

JEL Classification: L8, L83, C4, C41

Introduction:

Sports and tourism activities which from ancient times act together today so that sports tourism is undoubtedly one of the most important industries characterized by ever increasing profits and profits, without experiencing almost no shocks and repercussions of the global economic crisis. Modern tourism involves providing comfortable accommodation and a healthy diet but not neglecting the contents of the active leisure, recreation, sports, cultural relaxation with music and entertainment.

Today's tourists many by curious want to explore. They are simply fed up with the regular tourist offer and want something more. It is a new type of tourist-adventurers. They are interested in extreme sports. Their well spend a vacation is not the one lying peacefully on the beach, but rather one that will be filled with lots of excitement and adrenaline increased. Extreme biking, rafting, canyoning, snowboarding, paragliding are just some of the new travel terms that became current last decade. Macedonia has all the natural prerequisites for the development of such tourism.

1.CONCEPT AND DEFINITION OF ALTERNATIVE TOURISM

In scientific thought which deals with the notion of tourism poses a subtle question: what is meant by the term alternative tourism? It is a phenomenon contrary to mass tourism. In literature it is still seen as soft or sustainable tourism. Basically things that permanent growth and increased tourism, which follow the constant changes caused by environmental revolution, increased construction of tourist facilities, negative sociological and cultural phenomena, lead people to demand radical changes in existing tourist phenomenon.

Therefore scientists for tourism favor more alternative forms (new forms of already known phenomenon) than for alternative tourism (which may imply a completely new phenomenon). Alternative tourism involves preserving the environment, traditional environmental and landscape values. Return to nature touch with tradition and their own roots pleasures that the modern tourist are increasingly demanding.

According to the definition adopted at the UN conference in Rome in 1963 under alternative forms of tourism include: business travel trips, congresses and conventions, visit spa resorts, sporting events, visiting cultural and historical monuments, events, places of worship and pilgrimage departure and trips for picnics and walks. This emphasized great changes which have occurred in tourism, changes in supply to changes in travel motives, as well as the needs and behavior of tourists. Today the function of modern tourism development, which is characterized by more and more leisure fund, increase the number of visitors, their standard, and thus change their lifestyle, alternative tourism gets new dimensions. It is known that the tourist needs finds its expression in the tourism demand and tourism offer. It specifically means that tourism as an important activity, must take into account the needs of visitors and tourists should be based on the study of these needs, i.e on the study of their motivation, and also the factors that affect the choice of tourist destinations and the type of tourist stay. Such an approach of the tourist offer is a prerequisite for meeting the desires and preferences of visitors, and also a precondition for competitiveness, quality and financial effects (profits). Simply adjust supply to tourism demand research involves the flow directions in contemporary international tourism research and the characteristics of the tourist clientele ie their needs and interests.¹

From marketing aspect, the needs of the visitors are oriented towards greater diversification and the requirement that a wider range of potential services. While earlier the accommodation and food were synonymous resort - catering service, these services remain today just as an assumption, and less target visitors. They are more and more turning to those destinations that offer new experiences, events, changes. In the structure of complex tourism product changing the weights of importance of the different elements that make up the product. His development as part of the marketing function in tourist – the catering enterprises are leading products to satisfy the biological-physiological needs (food, housing and personal hygiene) to the products to meet the different activities.² In this context, you can specify the level of education which, in the research of tourist motivation emerges as a significant factor of tourist movements. With the increasing level of education of visitors, tourist stay is becoming more active, no matter what actions are working.

¹ Jakovlev, Z., “*Touristic Animation and touristic offer*”, Economy and business, magazine for teory and practice, Euro – Mak – Company, Skopje, November, 2001 year, p. 26.

² Cetinski, V., “*Animation as a segment of modern tourism*”, The Animation of hotelier - tourist industry, the Croatian Association of Hoteliers and Restaurateurs, Opatija, 1999., p. 16.

This fact is very important for the creation of tourist offer, because research shows that tourism trends include an increasing number of people with higher education.³ From this it can be concluded that the more the visitors there will be those who during the tourist stay will seek opportunities for different activities: recreational, cultural and entertainment as well as picnics and walks, which visitors will choose places whose tourism offer will allow such activities.

Alternative tourism requires mutual understanding and equality between the guest and the host. From here it can be concluded that the idea of alternative tourism is very close to the idea of sustainable development. So, in general we can say that the changes that occurred as a result of enormously rapid development, have a major impact on tourism. Tourism demand can no longer be considered as homogenized tourist market as new modern trends in tourism have contributed to the segmentation of the tourism market and the new revolution in tourist movements. Thus create a tourism product optional purchase, and comes to the creation of modern methods in tourism operations. Tourists to meet their different travel needs are beginning to abandon the traditional mass tourism.

All this is reflected in: replacement of existing with new tourist destinations, looking for a new more sophisticated tourism product, creating a realistic price for the real tourist offer and direct communication with potential users of the services.

Tourism has long been not only sun and water. Today's tourists, especially from the younger generation are very curious and want to explore. They are simply fed up with the regular tourist offer and want something new. It so called tourist-adventurers. They are interested in extreme sports. Their well spend a vacation is not the one with the peaceful lying on the beach, but rather one that will be filled with lots of excitement and adrenaline increased. Here we can mention: climbing, extreme biking, snowboarding, rowing in the swift waters, paragliding and others who are particularly popular in the last ten years. Mitigating circumstance here is that do not require special preparations on the ground, because of the extreme sports untouched nature is a sufficient infrastructure.

³ For example: working material of the publishing house "Gruner und Jahr" marking Tourism Exchange in Berlin 1984. Tourism trends and forecast "tourist behavior" of the inhabitants of West Germany until 1990. Materials specifically stated that more and more visitors will love holidays that offer more intense experiences and more activities. It is associated with the change in the structure of your visitors, the increase in the age groups of 20 to 40 years and even with the growing number of visitors with higher levels of education.

Alternative forms of tourism factor that allows for the involvement of different segments of the tourism demand. Namely, in this way different affinities tourist clientele can find attractive content. Thus satisfy their requirements related to their considerable picky. Through alternative forms of tourism provides support in the effort to protect exotic environments, rare colorful landscapes, untouched nature, tradition and culture, and they are activated by their visit.

Tourist offer of the alternative forms of tourism has certain characteristics that must be ignorant, how could the tourism product to be realistic. This means that such an offer has its own unique values that can be used in the promotion and realization of leisure travel. Specific tourism product must emphasize authenticity, uniqueness, the role of local factors etc.

Therefore the tourist offer in this segment of the tourist demand must be explored and studied, and tourism product designed according to the wishes and needs of tourists. Anyone who wants to develop specific types of tourism must know that: in these trips involved a smaller number of people, every tourist has their own individual needs, to meet the wishes and needs of tourists and there is a willingness to meet them, communication with potential tourists should instills confidence and a sense of honesty and friendship, tourist must feel respected and valued, local people have a greater impact in the development of these forms of tourism.

Various tourism potentials affect the formation of the specificity of certain destinations, which in turn affects the ability of certain forms of tourism development in them. I'll list a few of the specific forms of tourism that are most frequently mentioned: religious tourism, sports tourism, rural tourism, cultural, Tourism manifest nautical spa, hunting tourism, and more. Tourism with its phenomena and forms proved that he is a phenomenon without borders. Natural space with its elements provides unlimited opportunities for development of tourism and tourism scene represents the whole world.

Macedonia as a very small part of the world has invaluable natural resources. It is refined with excellent areas in which clean air causes real pleasure. Disaggregated relief interwoven numerous forms various identical landscapes and colors of vegetation to be the one of the most attractive in this part of the world. A special feature of our country is given by the three tectonic (natural) lakes Ohrid, Prespa and Dojran. That's another reason to protect and to leave a legacy to our future generations. Tourism from this benefit should extract the whole society, especially local people living in areas

suitable for these forms of tourism. Benefits should be sought in a variety of areas. Between tourism development deserves special attention. Tourism is an opportunity for the use of protected areas in a sustainable manner. It is also the way to use, protects and promotes environmental center rich in outstanding natural and man-entered content and elements. Development of alternative forms of tourism is particularly important in areas where there is an authentic natural and cultural heritage related to the possibility of sports recreation, cultural experiences and entertainment.

SPORT TOURISM

Although tourism is not a sport branch, it covers many sporting activities (sports recreation, sporting events, etc.). It can be concluded that tourism and sport are interrelated phenomena. Link between them dates back to the early beginnings of their development. However, the relationship between them changed significantly. Even in ancient Rome and Greece, the sport was the instigator of traveling people, and in order to visit major sports events. Lately sport tourism received a broader role, which was created and different relationship between these two phenomena. Functional links between tourism and sport long ago wrote the famous Tourism specialist Hunciker and Krapf. The phenomenon of sport tourism, they explained on the basis of examples of Swiss tourism which developed very early sports tourism, especially winter sports tourism. Sport in contemporary tourism not only perceptive role, but it is also an important content to stay that visitors become active participants in various sports. It becomes not just content to stay, but often the main motive for traveling to a particular tourist destination. Such a relationship between sport and tourism leads to the development of a specific type of tourism: sports and recreational tourism.⁴ Sports recreation in tourism is spoken of as a means of active leisure visitors, or content in which participation is actively.⁵

In this context, it can be concluded that tourism and sports have a lot in common. The first contact point is that tourism and leisure and sport are taking. It specifically means that if a person is engaged in sports and recreation in the place of permanent residence is outside of tourism. And if

⁴ Bartoluči, M., and Andrijašević, M., “*Sport recreation in tourism*”, The Animation in hotelier- tourist industry, The Croatian Association of Hoteliers and Restaurateurs, Opatija, 1999., p. 166.

⁵ Relac. M., “*Sport recreation in tourism*,” Sporting debate - Zagreb, Zagreb, 1979god., p. 7 - 12

the person deals with this kind of recreation outside their place of residence, is considered as a tourist. While it can be concluded that sports-recreation tourism enter into, even when residents of a particular place will be included in tourist flows.⁶ All these factors affect the development of the sport, not only in tourism but also beyond. In fact, it shows the best parallel review of the factors associated with the development of tourism and sport in tabular form:

Table 1. Factors for the development of tourism and sport

Factors for developing tourism		Factors for developing sport and recreation
I Factors of touristic demand		I Factors of demand of sport – recreation services
2) Objective - Population - Urbanization - Income - Free time	3) Subjective - Fashion - Behavior - Habits - Prestige - Faith - Love	- Urbanization and installation - Income of population - Free time - Subjective factors (Fashion, behavior, habits, prestige)
II Intermediary factors - Touristic agency - Tourist companies		II Intermediary factors - Touristic – sport agencies - Sport organizations
III Factors of touristic quote 1) Attractive 2) Communication 3) Receptive factors of touristic factors factors - natural - vehicles - accommodation - anthropogenic - PTT ties capacity		III Factors of sport – recreation quotes - Natural – resource - Sport – recreation and references

Source: Bartoluci. M and Andrijašević. M., “Recreation in tourism,” Animation in hotel - tourism, the Croatian Association of Hoteliers and Restaurateurs, Opatija, 1999god.

⁶ Cicvarić. A., “*The economics of tourism*, “the publishing company” Zagreb “, Zagreb, 1990., p. 27 - 30.

In this context, it is a factor in the area of economic and social life, which on the one hand act need (labor and environment, urbanization, industrialization, etc.), and on the other hand the possibility of practicing (free time, financial resources, transport opportunities, etc.). Togetherness is also reflected in the functions of the two phenomena. Numerous features of tourism and sport can classifications into two groups: Social or humanistic and Economic functions.⁷

A review of the functions of tourism and sport is presented in the following table:

Table 2. Functions of tourism and recreational sports

Functions of tourism	Functions of sport recreation
I Social (Humanistic) <ul style="list-style-type: none"> - Sport – recreation - Cultural – educational - Health - Social – Politic II Economic functions <ul style="list-style-type: none"> - FX - For employing - For developing of undeveloped areas - Multiplier - Conversations 	I Social (Humanistic) <ul style="list-style-type: none"> - Health - Educational - Social-political II Economic functions <ul style="list-style-type: none"> - FX - For employing - Multiplier

Source: Bartoluci. M and Andrijašević. M., “Recreation in tourism,” Animation in hotel - tourism, the Croatian Association of Hoteliers and Restaurateurs, Opatija, 1999god.

Seeing you here it perceives sport tourism, will be given an explanation of the functions of only the sport and recreation SPORTS. Namely, one of the most important functions of the tourism and sports tourism was in e healthy functions. It is known that with the various programs within the range of sports and the recreation, the positive influences on the keeping and improving the health of visitors. Countless of researches have confirmed the thesis that I interest with sports and the recreation contributes to preventing disease who are present to modern live, so also enact advance the functional capabilities

⁷ Relac.M., and Bartoluči.M., “*Tourism and sports entertainment*”, Information - Zagreb, Zagreb, 1987god., p. 36

of the ORGANISM. Healthy function is one of the most important motives for the trip is a change in the place of the steady live, so considering the fact that it is accomplished by the presence of natural resources (sun, water and beam). Owing to these fancied Tao is becoming significant move impetus for the Tourist Development.

Sport and recreation in tourism have an educational function which is expressed through learning and mastering certain sports skills. But it is not only increasing the educational level of visitors, but this feature has some educational influence that manifests itself by creating habits for practicing certain sports and recreational activities.

As a result, sports tourism, time travel and tourism residence, people are introduced, bringing together regardless of social and other differences between them, which is the social function of sport tourism. Sport is almost always tied to travel to different places, he, along with tourism, it becomes “an ambassador of peace among nations.” In addition, the top sports achievements are the best tool for the promotion of individual countries. All this contributes to the affirmation of the political function of recreation sports tourism.⁸

It is well known that the economic functions have extreme importance for the economic development of receptive tourism countries such as the Republic of Macedonia. In this economic advantage and give foreign function. Economic functions of the sports leisure consumption are achieved through a variety of sports products tourist market and thereby generate additional economic effects in tourism. It can be concluded that both sport and tourism important moments recreation, relaxation, change every day and so on. Game and communicability basic elements of sports activities for the holiday, so it should be placed and accent sport tourism. Of course that should not be neglected even recreational - health aspects that occur as the elements.

Sports tourism can be arranged on land and water, in a closed or open space. Indoor sports tourism on land has its advantages and disadvantages. Advantage is that it is not dependent on atmospheric conditions (climate, season, etc.). Main disadvantage is the limited space.

This group includes: activities that do not require special wiring or equipment, such as: gymnastics, aerobics, yoga and the like, activities that require little equipment such as: table tennis, billiards, darts, etc., activities that require special installations or equipment, such as: bowling, sports hall and so on.

⁸ Bartoluci. M and Andrijašević. M., Ibid, p. 172

Sports tourism on land in open space is dependent on atmospheric conditions. This group includes the following: activities that do not require special installations and equipment, such as: climbing a mountain (hill), and the like. Activities that require little equipment and installations, such as: badminton, various ball games, etc. Activities that require special installations and equipment, such as: minigolf, playgrounds and so on. Activities that can take place in the snow, as example: luge, skiing, playing with snowballs and more. It includes all the other activities mentioned above that may take place indoors.

In sports tourism indoor water (pool) include: organized activities such as swimming, water polo, various matches, as well as various water games.

Water sports tourism in open space (lake, sea, river, etc.) include: activities that do not require equipment, such as water polo, swimming, various matches and so on and - Activities that require equipment, such as water skiing, underwater fishing, surprise (diving) and the like.⁹

Concluding remarks

According to some estimates, given the rapid development and faster growth in the field of sports tourism potential economic contributions that brings in the beginning of the 21st century, sports and special sports and activities that provide active rest people in symbiosis with tourism and show businesses will reach the top of the attractive business sectors in the world economy. Although sports tourism in Europe and the world developed and very popular in our country is still in the stage of occurrence and formation, although here there are sporting events that have “power” mobilize many visitors, it is obvious that the potential of sports tourism sufficiently used.

Sports and tourism activities which from ancient times act together today so that sports tourism is undoubtedly one of the most important industries characterized by ever increasing profits and profits, without experiencing almost no shocks and repercussions of the global economic crisis. Modern tourism involves providing comfortable accommodation and a healthy diet but not neglecting the contents of the active leisure, recreation, sports, cultural relaxation with music and entertainment. Today, tourism is linking sport and health, and many other benefits especially active holiday with sports-content kinesiology recreation, entertainment psycho relaxation and so on.

⁹ Cickovski. A., “*Hospitality as a carrier of tourism Socialist Republic of Macedonia*”, Ph.D. thesis, University Center for Economic and Organizational Sciences in Rijeka, Rijeka, 1985., P. 198

References

1. Bartoluci, M., Andrijašević, M., Recreation in the tourism, hotel and Animation - tourist industry, The Croatian Association of Hoteliers and Restaurateurs, Opatija, 1999;
2. Jakovlev, Z., (2001), The tourist entertainment and tourist offer, Economics and Business, The Journal Theory and Practice, Euro - Max - Company, Skopje, November;
3. Relac, M., Recreation Sports Tourism, Sports debate - Zagreb, Zagreb, 1979;
4. Faith, V., Animation as a segment of modern tourism, hotel and animation - tourist industry, the Croatian Association of Hoteliers and Restaurateurs, Opatija, 1999;
5. Cicvarić, A., (1990), Economics of Tourism, The publishing company - Zagreb, Zagreb;
6. Relac, M., Bartoluci, M., (1987), Tourism and Recreation Sports, Information - Zagreb, Zagreb;
7. Cickovski, A., (1985), The hotel industry as a carrier of tourism SR Macedonia, Ph.D. thesis, University Center for Economic and Organizational Sciences in Rijeka, Rijeka.
<http://money.mnogoo.mk/mk/articles/Destinacii/alternativen-turizam-vo-makedonija>

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COSTING SYSTEMS IN THE TELECOMMUNICATIONS INDUSTRY

Abstract

Today's telecom market is multi-faceted, complex and unpredictable. The telecoms industry is at risk of becoming a low profit business. As the telecommunications industry continues to advance at breakneck speed, its costing systems will need to keep up. Originally designed based on the properties of legacy networks, price regulations for monopolistic services have generally utilized cost models adopting various costing methodologies. The increasing deployment of IP-based fixed and mobile infrastructure in combination with the still unanswered search for data monetization have intensified the pressure on the managerial accountants to review its costing systems for both regulatory and commercial cost analyses. Overall, this study provides valuable understandings into the nature of present costing systems adapted to today's fast evolving telecommunications environment.

Key words: Cost Accounting, Activity-Based Costing (ABC),
Traditional Costing, Target Costing

JEL classification: M2, G30

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Introduction

Telecommunication business has a number of objectives, including satisfying customers with high-quality products and services, quickly and on time; maintaining high levels of market penetration; satisfying the customers; providing a good working environment for employees; and being financially successful. The long-term financial success of any telco business depends on whether its prices exceed its costs by enough to finance growth, provide for reinvestment, and yield a satisfactory return to its stakeholders. If there are few competitors, it may be possible to simply mark up costs to establish a price that yields a sufficient profit. However, as competition increases, market forces influence prices significantly more. To achieve a sufficient margin over its costs, a telco company must manage those costs relative to the prices the market allows or the price the firm sets to achieve certain market penetration objectives. In the context of these characteristics, different costing models have evolved. Usually, cost models were tools used by regulators to monitor and control prices for access and interconnection services which are monopolistic in nature. Over time, operators have also developed cost models to analyze their own cost structures for regulatory and business purposes. With developments in new technology, services and regulations, cost models have gradually evolved to reflect these changes. At present, the capabilities of cost models have expanded and can be used for regulatory pricing (tariff regulations), profitability analysis (pricing strategies), regulatory accounting (accounting separation), and cost optimization, amongst other purposes. The adoption of a modern and sophisticated costing system was needed to assure public opinion, including the regulators and the new operators in the market, that costs were calculated based on a rational and reliable system, and furthermore that telco company was making serious efforts to improve its performance. The following sections include five main costing models in the telecommunication, namely, traditional costing system, activity-based costing, target costing, accounting separation and costing system for next generation networks.

1. RADITIONAL COSTING SYSTEM IN THE TELECOMMUNICATIONS SECTOR

Given the high-technology nature of the telecommunications industry, its manufacturing overhead costs represent a significant proportion of its total costs. Many telecommunication companies have been used the traditional costing system to assign manufacturing overhead to units produced. Users of the traditional costing method make the assumption that the volume metric is the underlying driver of manufacturing overhead cost. Under traditional costing, accountants assign manufacturing costs only to products. Mainly, the traditional method of cost accounting refers to the allocation of manufacturing overhead costs to the products manufactured. The traditional method (also known as the conventional method) assigns or allocates the factory's indirect costs to the items manufactured on the basis of volume such as the number of units produced, the direct labor hours, or the minutes used. Traditional accounting fails to allocate nonmanufacturing costs that also are associated with the production of an item, such as administrative expenses. The trouble with traditional costing is that factory overhead may be much higher than the basis of allocation, so that a small change in the volume of resources consumed triggers a massive change in the amount of overhead applied. Such a large change in applied overhead is nonsensical, since there is not always a direct relationship between the volume of production resources and factory overhead. This is a particularly common issue in highly automated production environments, where factory overhead is quite large and direct labor is close to nonexistent. Companies commonly use traditional accounting in external financial reports because it provides a value for the cost of goods sold. When 'International Telecom's managers were faced with the prospect of competition being introduced in the EU telecommunications market [1, 2] they were not concerned in having a very sophisticated managerial accounting system. The traditional accounting system was no longer satisfying the costing needs of the telecommunication companies. Many of them abandoned this costing system and replaced it with more sophisticated systems.

2. ACTIVITY-BASED COSTING IN THE TELECOMMUNICATIONS SECTOR

From the time when it was introduced in 1980's, the Activity-Based Costing (ABC) model has been broadly recognized in theory as one of the most superior cost and profit measurement methods and tool for overhead costs assignment to products, services, customers or other cost objects.¹ Overall, ABC has in large extent made obsolete the traditional cost management systems based on arbitrary overhead costs allocation, and enabled much higher level of accuracy in determination of actual costs of production as it seeks to identify the real cause-effect relationships in the process of indirect costs assignment. Furthermore, it has become a base for development of new management and controlling approaches, such as Activity-Based Management and Activity-Based Budgeting.² Even though the geneses of ABC are in the production industry, the model has been proved to be even more valid and beneficial for the services industries, more implicitly in the banking, health institutions and education and telecommunication sector. Practically all the costs in these ranges are overheads and fix over period of time, in contrast to manufacturing where still, the major portion of costs are direct and variable to the volume of production and sales. ABC in service entities have to take, first of all, the customer behavior into account which is feature distinguishing these system from Activity-Based Costing as used in manufacturing enterprises. In manufacturing firms only the cost of marketing, selling, order handling, delivery and service of the products might be customer-specific. Used for service companies, in contrast, even the basic operating costs of standard service are determined by customer behavior.³

The possible problems in implementing ABC in telecommunication sector are mainly related to complexity and continuous technological and market changes. However, there are also some subjective reasons, such as: inadequate communication among employees, lack of management commitment and vision accompanied by the employees' resistance on implementing system of detailed tracking of their day-by-day activities. Some

¹ **Kaplan, R., and Bruns, W:** "Accounting and management: A field study perspective." Harvard Business School Press. Boston, Massachusetts, 1997

² **Cokins, G:** "Activity-Based Cost Management: An executive's guide." John Wiley & Sons, Inc., New York, 2001

³ **Kaplan, R., Cooper, R:** "Cost & effect: Using integrated cost systems to drive profitability and performance." Harvard Business School Press, Boston Massachusetts, 1998, pp. 181-201

of those issues could be solved by applying of the less complex Time-Driven Activity-Based Costing method. The time-driven approach avoids the costly, time-consuming and subjective activity-surveying task of conventional ABC. It uses time equations that directly and automatically assign resource costs to the activities performed and transactions processed. Only two parameters need to be estimated: the capacity cost rate for the department and the capacity usage by each transaction processed in the department. It is evident that the TDABC model solves the issues of complexity and expensiveness of the conventional ABC, yet there might be certain concerns related to simplified process of activity mapping and threats for losing some opportunities in the area of Activity-Based Management. However, TDABC could be seriously considered as an option in all cases where there are constraints regarding the implementation and maintenance costs and processes' complexity.⁴ In regards to the benefits, it is obvious that successful implementation of ABC/M in telecom providers could result in much better understanding of profit drivers throughout the technical and commercial processes, but certainly the most important is that the company can gain significant long-run competitive advantage in the area of pricing and cost controlling, which are considered to be the key success factors in this continuously changing industry segment. Carrying out of ABC/M requires engagement of sophisticated software application that will support tracking and analyzing of massive volume of data throughout the period. Globally, there are several software tools already established as a 'top of class' systems in this area: SAP, Oracle, Acorn Systems, QPR Cost Control and SAS. As an ultimate purpose of ABC implementation is to support and improve the decision making process, it is of crucial importance that ABC/M system has to be in some way integrated in the overall performance management and measurement system of the company. The clients are more interested in employing integrated solutions with the rest of their systems, i.e. prefer the built-in ABC functionalities in the ERP and EPM systems in use.

⁴ **Kaplan, R., and Anderson, S:** "Time-Driven Activity-Based Costing: A simpler and more powerful path to higher profits." Harvard Business School Press, Boston Massachusetts, 2007, pp. 123-128

3. TARGET COSTING IN THE TELECOMMUNICATIONS SECTOR

To compete effectively in today's emerging telecommunication market, telco's must be customer-oriented, hence they must simultaneously address the issues of time/speed, quality and cost in product planning and development and this is the rationale behind the technique of target costing. The fundamental objective of target costing is very straightforward. It is to enable management to manage the telecommunication business to be profitable in a very competitive marketplace. Target costing is a mechanism for determining selling. The object of target costing is to identify the production cost of a proposed product so that, when sold, it generates the desired profit.⁵ Target costing can be defined as a cost management tool for deducing the overall cost of a product over its entire life cycle with the help of the production, engineering, research and design, marketing, and accounting departments. Also, target costing can be described as a method of determining the cost of a product or service based on the price that customers are willing to pay. The target costing process requires the cost-oriented coordination of all product-related organizational functions.⁶ Common to most definitions is a process founded on a competitive market environment; market prices driving cost (and investment) decisions; cost planning, management, and reduction occur early in the design and development process; and cross-functional team involvement, including the management accountant. In effect, target costing is a proactive cost planning, cost management, and cost reduction practice whereby costs are planned and managed out of a product and service early in the design and development cycle, rather than during the latter stages of product development. Target costing obviously applies to new telco products and services. It also applies to service modifications or succeeding generations of products.

As the first step, the telco company determines what the market is willing to pay for a service. Three main players are taken into consideration: customers, competitors, and a company's senior management. The telecom operator must understand customer's perceived value of a service as well

⁵ **Cooper, R. & Kaplan, R:** "Activity-based systems: measuring the costs of resource usage." *Accounting Horizon*, 6(3), 1992, pp. 1-13

⁶ **Krstevski, D., and Mancheski, Gj:** "Managerial Accounting: Modeling Customer Lifetime Value - an Application in the Telecommunication Industry." *European Journal of Business and Social Sciences*, Vol. 5, No. 01. 2016, pp. 64-77

as their attitude for purchasing services. The telco company must take into account competitors alternative and substitute services. This is because customers are shoppers and will shop around for the best price and value. The senior management must define and adjust strategies to meet the company's objectives. The second step is determining target profit margin – profit margins must be to satisfy the expectations of both the company and its owners. Two approaches can be used to determine the desired profit margin: baseline experiences and capital budgeting using lifecycle analysis. The last step calculates the allowable service cost – the maximum allowable service cost is calculated as the net between the target selling price and the target profit margin.

Many telco companies use target costing together with an activity-based-costing (ABC) system. Target costing requires a company to first determine what a customer will pay for a service and then work backwards to design service and production process that will generate a desired of profit. ABC provides data on the costs of the various activities needed to lunch the service. Knowing the costs of activities allows service and services process designers to be able to predict the effects of their designs on the service's cost. Target costing essentially takes activity-based costs and uses them for strategic product decisions.

4. ACCOUNTING SEPARATION SYSTEM

Accounting separation (AS) should ensure that the costs of a wholesale input are based on the cost of producing the product in question, ideally incremental costs as well as a mark-up for joint and common costs. A coherent accounting separation system records the costs of the individual elements / components of the network. It then sets out how these are used by the several wholesale services. Furthermore, it shows the relationship of the costs of these wholesale services to the prices of these services (including a reasonable return on capital). Finally, it demonstrates that the retail arm of the incumbent network pays for these services on this basis. All this has to occur in accordance with a published methodology and an independent auditor has to endorse that this is in fact what has occurred. In order to calculate the costs of a service, the following information are required:

- (i) Network elements could in theory either be posted on a Historical Cost Accounting (HCA) or Current Cost Accounting (CCA) basis. CCA is preferred because it means that the network is being charged for on its cost of replacement. This encourages rational further investment by new entrants and incumbents.
- (ii) Long Run Incremental Costs (LRIC) plus a contribution to the recovery of fixed common costs of an efficient operator are preferred. However, fully allocated costs could be used in the short term and are likely, if properly implemented, to give a figure that does not vary extravagantly from the LRIC figure.
- (iii) The cost elements of at least all wholesale services should be included. However, the analysis needs to be more detailed, since service will use a number of network elements. A complete system would costs of all the services, including the potentially leveraged wholesale and retail markets.
- (iv) Usage volumes are necessary in order to apportion costs of network elements between the particular wholesale services that are using them.
- (v) The cost of a particular network element will include a reasonable rate of return on capital. Weighted Average Cost of Capital (WACC) needs to be agreed set by the regulator, after consulting both the incumbent and new entrants in a transparent process.
- (vi) The attribution model should set out how all costs and assets including joint and common costs are allocated between network components, and, critically between the wholesale part of the business and the retail business. The wholesale business must not be attributed costs that should be ascribed to the retail business.
- (vii) The transfer prices paid by the incumbent's retail arm (with explicit comparison with the costs of the input based on the underlying network elements).
- (viii) The AS system should also show a statement by independent auditors that the separated accounts can be reconciled back to the company's financial statements and that the separated accounts have been constructed in accordance with the attribution methodology.

When implementing AS, it is key to work towards results that are consistent with the operators' strategy and current price regulations. Implementation of AS should be efficient, minimizing the workload by

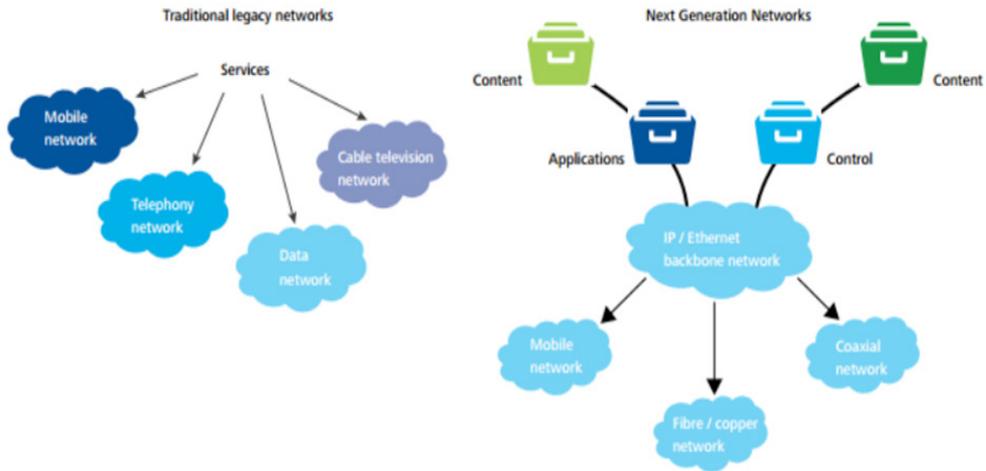
simplifying allocation processes to the extent possible. AS projects conclude several stages: define separated businesses, identify cost and revenue base, develop allocation processes and tools, identify driver values and reporting, documentation and audit. Separated accounts have different systems and software requirements compared to statutory accounts: flexibility, transparency and affordability are the key elements.

5. COSTING SYSTEM FOR NEXT GENERATION NETWORKS (NGN)

NGN has been defined by the International Telecommunication Union as “a packet-based network able to provide services including telecommunication services and able to make use of multiple broadband, quality of service enabled transport technologies and in which service-related functions are independent from underlying transport-related technologies”. It is an IP-based network with a multi-layer architecture for services, control, transport, and access. Traditional switches are replaced by media gateways and soft switches. In traditional legacy networks, each service is operated on its own dedicated network – fixed line telephony on public switched telephone networks (PSTNs), mobile voice services on mobile networks, television broadcasting on satellite and cable networks, etc. These networks are designed independently and specifically for a single service. NGN offers services independent of the type of network because it is a converged multi-service network, as illustrated in Exhibit 1. These differences will impact current cost modeling methodologies. As multi-service platforms, NGN networks would have much higher fixed shared and/or common costs as compared to legacy networks. Consequently, an effective cost allocation method of services is required. In traditional cost models for circuit-switched networks, cost allocation to services was commonly performed through a network utilization routing table. Network routing scenarios were defined for each particular service using the principle of cost causality and costs have been allocated via degree of utilization of network elements to their corresponding services.⁷

⁷ **Wuppermann, J., and Mekanand, T:** “Costing Methodology for Next Generation Networks”, Deloitte Paper, 2014. Available at <https://www2.deloitte.com/mm/en/pages/technology-media-and-telecommunications/articles/costing-for-ngn.html>, September 2017

Exhibit 1. Architectural differences between traditional legacy networks and next generation networks



Source: Deloitte, Technology, Media & Telecommunications p.2

Present costing approaches and methodologies have been designed based on the characteristics of legacy networks and thus are effective when used to model costs of legacy networks. The emergence of NGNs, however, presents a new set of considerations for telecommunications companies as it is much more difficult to apply the traditional cost causality principles. NGNs can have significant impacts on the traditional costing systems, including cost allocation, treatment of incremental costs, and regulations based on LRIC.

Conclusion

The telecommunications industry nowadays operates in a very competitive market; with the full outline of competition into the telecommunications sector. Its business activities were redefined and focused on providing international telecommunications, its organizational structure was transformed, and its managerial accounting was changed. One of the main changes is introduction of ABC not just for generating costing data to assist managers, but also to respond to legal-institutional obligations to provide exhaustive and structured costing data, at any time. The adoption of ABC fulfilled expectations for modernization in ‘International Telecom’,

created by the reorganisation of EU telecommunications sector. Furthermore, operators are transforming their networks to enhance the capacity and capability for new services. In doing so, introduction of new technologies creates challenges for cost accounting. Accountants and regulators need to carefully think through how to allocate within the new core infrastructure, in terms of the basis for apportionment and the data and methods that are required to support this. Nevertheless, the costing of NGN networks is still in its infancy as legacy networks are gradually replaced by NGN networks around the world. Costing methodologies and regulations must develop hand-in-hand with technological developments, keeping in mind that the objective of cost models is to reflect the reality of networks.

References

- [1] Cokins, G: "Activity-Based Cost Management: An executive's guide, John Wiley & Sons, Inc., New York, 2001
- [2] Cooper, R. & Kaplan, R: "Activity-based systems: measuring the costs of resource usage." *Accounting Horizon*, 6(3), 1992, pp. 1-13
- [3] Kaplan, R., and Bruns, W: "Accounting and management: A field study perspective." Harvard Business School Press. Boston, Massachusetts, 1997
- [4] Kaplan, R., Cooper, R: "Cost & effect: Using integrated cost systems to drive profitability and performance." Harvard Business School Press, Boston Massachusetts, 1998, pp. 181-201
- [5] Kaplan, R., and Anderson, S: "Time-Driven Activity-Based Costing: A simpler and more powerful path to higher profits." Harvard Business School Press, Boston Massachusetts, 2007, pp. 123-128
- [6] Krstevski, D., and Mancheski, Gj: "Managerial Accounting: Modeling Customer Lifetime Value - an Application in the Telecommunication Industry." *European Journal of Business and Social Sciences*, Vol. 5, No. 01. 2016, pp. 64-77
- [7] Wuppermann, J., and Mekanand, T: "Costing Methodology for Next Generation Networks", Deloitte Paper, 2014. Available at <https://www2.deloitte.com/mm/en/pages/technology-media-and-telecommunications/articles/costing-for-ngn.html>, September 2017

JASMINA MAJSTOROSKA*

POSSIBILITIES FOR IMPLEMENTING ECONOMIC GARDENING IN THE REPUBLIC OF MACEDONIA

Abstract

Economic gardening (EG) is considered as an entrepreneurial approach to economic development that seeks to grow the local economy from within. Its premise is that local entrepreneurs create the companies that bring new wealth and economic growth to a region in the form of jobs, increased revenues, and a vibrant local business sector. Especially are important the second-stage companies and fast growing companies - gazelles, that are the engine behind job creation and revenue generation, and provides a unique and powerful way to grow economies. Economic gardening targets growth-oriented companies that already operate in communities and helps these businesses succeed by tackling and delivering high-level strategic issues and research services.

Economic gardening helps to establish a strong entrepreneurial culture that is critical to company, industry, and regional and statewide growth. It is not a fast answer, it is a lifetime change.

In the text are presented the concepts of economic gardening with their specificities in USA and Japan. Also, the special observation is given on the situation with business support in the Republic of Macedonia and are analyzed the possibilities for implementing the economic gardening concept on national and local level.

Key words: economic gardening, economic development,
local economy, company growth

JEL classification: R1, L 26

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Introduction

Finding models of economic policies that will enable growth of the regions is permanent challenge of the local and central governments. The economic gardening (EG) is considered as an economic development model that embraces the fundamental idea that entrepreneurs drive economies. The model seeks to create jobs by targeted support for existing companies that are already in a community, to help them grow, by assisting them with strategic issues and providing them with customized research. Main belief of the concept is that the small local entrepreneurial firms would be the engine for the creation of sustainable wealth and new jobs, and the role of the local government and city was to provide a nurturing environment within which these small firms could flourish. The success of this model depends and requires increasing innovation and adaptation from businesses and community leaders.

This concept was implemented in USA, Japan and Australia. Also other countries might implement some forms of EG, but they are differently named.

1. THE CONCEPT OF ECONOMIC GARDENING

The economic gardening is in wider sense an innovative, entrepreneur-centered approach to economic development and is often referred to as a “grow from within” strategy. Key pillar is a comprehensive technical assistance provided by a team of national experts that can lead company to new heights. In contrast to traditional business assistance, EG focuses on strategic growth challenges, such as developing new markets, refining business models and gaining access to competitive intelligence. It is about leveraging research using sophisticated business intelligence tools and databases that growth companies either aren’t aware of or cannot afford.

Special importance is given on the role of the local experts and local government support. The EG teams work hand-in-hand to not just identify issues facing the client company, but to also implement and work through a solution. In contrast to a “data dump” consultants might provide, the EG teams spend a great amount of time explaining the purpose and application of the information provided.

The target group of companies for support is so-called second stage companies – growth-oriented businesses with external market potential that have moved beyond the startup stage. Typically, second stage companies employ 10-99 people.

1.1. Economic gardening in USA

The concept of EG traces its roots back to 1987 in Littleton, Colorado, when the state was in a recession and missile manufacturer Martin Marietta (now Lockheed Martin) left town, which resulted in 7.500 lost jobs and 1 million square feet of vacant real estate (industrial and office space). That year, the city council directed its economic team to figure out how to not just fill the hole but to make sure Littleton was never that vulnerable again.¹

In response, Chris Gibbons, Littleton’s director of business and industry affairs, began to implement his version of EG, working with local companies to create new jobs in lieu of recruiting, incentives or tax rebates. It initially was based on the developed research by MIT’s David Birch, who suggested that most new jobs in any local economy were produced by the community’s small, local businesses. That theory was that so-called Stage 2 companies, employing between 10 and 100 people and with annual revenue of at least \$1 million, create the best kind of jobs that will improve an economy. As opposed to small shops that create mostly minimum wage jobs, these mid-sized companies were growing the middle class workforce. The thinking was that if such companies had the proper push they could drive a local economy upward.

In Littleton, city leaders observed that only 3 to 5 percent of all companies were “high growth” but determined that those “gazelles” were creating the great majority of new jobs. Over the next two decades, Littleton put a moratorium on recruiting, incentives and tax rebates. Replacing these traditional economic-development tools, Gibbons implemented his concept of Economic Gardening, and Littleton more than doubled jobs (at a time when its population only increased by 23 percent) and tripled sales tax revenue.

To help other communities adopt his approach, Gibbons founded the National Center for Economic Gardening (NCEG) and partnered with the Edward Lowe Foundation in 2010 to host the center. Since then NCEG has helped establish EG programs in more than 25 states, including Kansas,

¹ <http://www.kauffman.org/what-we-do/resources/policy/economic-gardening>

Florida, and Michigan. Major states like California regularly include EG discussions in their state economic development conferences and cities including Oakland and Berkeley also have EG projects.²

NCEG delivers strategic information through its National Strategic Research Team, a cadre of certified experts in various disciplines. The foundation has developed a proprietary software system, which enables host organizations, CEOs and the research team to communicate virtually through a secure portal. NCEG also trains and certifies program administrators, team leaders and research specialists.

Research specialists typically assist in five key areas: core strategy, market dynamics, qualified sales leads, innovation and temperament, using sophisticated corporate level tools such as – commercial databases, geographic information system, search engine optimization and web marketing.

Usually the support is based on specially designed program focusing on strategic growth challenges through lectures in:³

- Market research - Identify market trends, potential competitors, unknown resources and new market development,
- Refining business model - refine core strategy and assisting with strategic issues for sustainable competitive advantage.
- Access to competitor intelligence - Track websites, blogs and online communities to better understand competitors as well as current and potential customers.
- Search engine optimization Raise visibility in search engine results and increase web traffic
- Map geographic areas for targeted marketing using Geographic Information System Mapping and Optimization
- Web marketing tools.

For example the Illawara EG program is 6 months program, with 20-30 participants. The concept is based on a Business bootcamp as intensive workshops on management strategy, workshops on management skill improvements by digital strategy, staff motivation, finance/accounting education, CRM, as well coaching for limited participants only.⁴

² <https://www.nationalcenterereg.org/>

³ <http://edwardlowe.org/>

⁴ <http://www.kauffman.org/what-we-do/resources/policy/economic-gardening>

The Littleton EG initiative provides local entrepreneurs with access to competitive intelligence on markets, customers, and competitors that is comparable to the resources customarily only available to large firms. Included in the market information category are database and data mining resources, and geographic information systems.

Louisiana Economic Development's EG Initiative provides Louisiana-based small businesses with the information they need to grow and succeed. Through accelerated technical assistance and research, an experienced EG team provides customized services tailored to the company's business needs, including:⁵

- Review of core strategies, including threats and opportunities, business strategy and niche markets.
- Business development opportunities through market research and qualified sales leads.
- Improved internet presence by increasing company's visibility and credibility within the market, and advice on how to best use technology to connect with customers.

The length of time is usually determined by factors such as complexity of the issues, availability of relevant research information and CEO involvement and availability.

Economic gardening programs varies in different regions and countries because they cannot succeed without a clear understanding and commitment to meeting the needs of entrepreneurs—specifically, identifying and meeting the needs of growth-oriented entrepreneurs that generate a majority of the net new jobs and associated wealth at the core of any effective growth strategy. Through accelerated technical assistance and research, an experienced national EG team provides customized services tailored to meet individual business needs. Following an initial team call where the CEO outlines their current strategy and needs, the National Strategic Research Team begins to provide research reports, recommendations and data lists for the company to implement within its growth strategy. Entrepreneurs know more for their companies than everyone else, so the experts simply give a better view of the big picture in order to make necessary adjustments to perform better and grow larger.

⁵ <https://www.opportunitylouisiana.com/small-business/special-programs-for-small-business/economic-gardening-initiative>

Economic gardening can be most effective in regions having sufficient entrepreneurial spirit and culture already in place. Challenges with EG include overcoming a lack of trust in the resources, ‘entrepreneurial culture’ of a community, building awareness about programs, and actually identifying second stage companies. These challenges are common with many government-led business assistance programs. Working with trusted partners, like the chambers of commerce and universities, can help overcome some of these barriers.

1.2. Economic gardening in Japan

Economic gardening is considered as an approach to enliven local economies in Japan. The actual problems are shrinking cities due to imposed shrinkage (political, spatial and administrative reforms, or depletion of natural resources), comparative disadvantages (loss of competitiveness in industries) or societal and global challenges (climate change, prourban lifestyle). To revitalize shrinking cities it is necessary to create more jobs, to increase the household income and this can be done only by nurturing local SMEs and creating business-friendly ecosystem through well-designed policy intervention.

The reality in local economies is that there is a dual structure – on one side global large companies and on the other side are SMEs as local subcontractors. The challenges are limited innovation capacity by SMEs, low labor mobility and ageing workers and CEO. Traditional approaches for supporting SMEs, such as providing subsidies or low-interest loans, were not always effective in shrinking cities. The reality requires new approach for support SMEs, based on networked development approach, complementary leadership and intelligence. This encompasses business network analysis, market information analysis, match making through key persons, strategic management. The role of public sector in economic gardening is providing information, infrastructure, and connections.

Economic gardening in Japan was realized in Osaka Prefecture. It started in 2014, focusing on existing companies. It was hands on services for manufacturers with strong collaboration of the municipal governments.⁶

In Osaka Prefecture, support functions for small and medium-sized manufacturing enterprises (SMEs) have been consolidated at two major

⁶ <http://www.m-osaka.com/en/>

bases. One of them is the Technology Research Institute of Osaka Prefecture (Izumi City), which offers comprehensive support related to technology, and the other is the Monozukuri Business Information Center Osaka (MOBIO), which is located in Higashi-Osaka City. “Monozukuri” is a Japanese word, which refers to manufacturing.

MOBIO offers every kind of support other than technical support, its main mission is “business matching.” In short, it sets up opportunities for SMEs and people belonging to other areas to meet. Its main duty is to create scenarios where manufacturers, universities, foreign companies, professionals such as patent attorneys and lawyers, and creators and designers can meet.

MOBIO aim is to establish an environment in which SMEs can boost their innovative capabilities and undertake challenges. That being said, many companies state, “We have no idea what to specifically carry out.” It is important to provide proper support with knowledge of such information and to disseminate the knowledge gained through experience to newly arriving companies. Thus, they make plans to implement various approaches under the motto “To know, to do, to gather,” and are continually working on these plans.⁷

Other case of EG in Japan is the project realized by Tohoku University and Miyagi prefecture, by creating Regional Innovation Producers School and Regional Innovation Advisors School, that were matched in a joint The courses covered the following topics – innovation and design, innovation strategy, strategic management, marketing, project design, branding strategy, management of human resources and organization, as well creating and analyzing case studies.⁸

The key benefits from these programs that are realized since 2012 are increased sales, profit and employment in the regions and above all beneficial learning in design thinking, thinking as business management, local thinking.

Leydesdorff and Etzkowitz (1997) introduced the concept of a “triple helix” of university-industry-government relations as a new strategic framework for innovation. The triple helix model provides a mechanism of endogenous economic development, where sources and propellant of innovation come from inside of the economic ecosystem. For the case of

⁷ <http://kenplatz.nikkeibp.co.jp/article/otagaien/news/20130911/631710/>

⁸ Yamamoto Takashi PhD, Takushoku University, Tokyo, Japan, Lectures Outline of Economic Gardening: “Economic Gardening” for Local Economic Circulation, from the JICA Seminar Knowledge Co-Creation Program: Industrial Development and Promotion Utilizing Local Resources, July-Aug. 2017

Tohoku University and Miyagi Prefecture, more appropriate is a concept of “quadruple helix”, focusing on the relationship among university, industry, government, and regional banks. Banks are added as a separate actor because the role of local financial institutions is different from that of other industry actors, and it should be highlighted as an independent entity.⁹

Other example of economic gardening in Japan is from Sakai city. There is community that enables wide support of businesses according to growth stages, from seedbed preparation for start ups, to establishment of new business facilities. The support is enabled by few institutions S-Cube (Sakai Business Incubation Center – business incubation, seminars, individual support by management consultant), Sakai Industrial promotion Center (Management assistance, business matching, expert dispatch, etc.), Support organization for management innovation (consultation services, seminars, etc.), as well support measures coordinated by local government, university of Kansai, chamber of commerce, national and regional financial institutions, and wide area of support organizations.

According Japanese understanding key factors for success of this so called endogenous development philosophy or networked development or economic gardening are favorable habitat and devoted key persons, focusing on promising businesses (owners portray a genuine interest in being helped, growing firms, management values innovation and new ideas, etc), cooperation among business, academics and government.

This example of economic gardening focuses on active role of the city in supporting companies through whole life cycle.

2. ECONOMIC GARDENING AS A CONCEPT FOR BUSINESS SUPPORT IN THE REPUBLIC OF MACEDONIA

The Republic of Macedonia considers SME development, competitiveness and growth as one of the highest strategic priorities. It has developed a centralized system for support of companies that is led by the government ministries and few agencies. All programs and measures are designed and implemented mostly on a central level. Local business support infrastructure is fragmented and not strongly supported. Especially the business

⁹ Leydesdorff L. and Etzkowitz H. (1997). A Triple Helix of University–Industry–Government Relations. Etzkowitz H. and Leydesdorff L. (eds), *Universities and the Global Knowledge Economy* (pp.155-162). London: Pinter.

support on the city level is minor. As other countries, Macedonia faces with the challenges like brain drain and migration to the capital city, that leads to shrinking the cities from inside the country.

With the latest initiatives for creation of Technological Industrial and Development Zones, focused on attracting FDI, a lot of new jobs were created in the cities within the country. Foreign companies were attracted mostly in the free economic zones by the promotive incentive package as well as low costs for labour. There is a threat that they will stay in the community as long as incentives are received and costs stay low. As salaries and costs began to rise, as well incentives are canceled after defined period there, is a threat that they would again look elsewhere for low costs.

This emphasizes the importance for the growth to be based not only on FDI, but mostly it should be based on the development of endogenous industry and local SMEs with potential for growth.

One of the challenges is how to identify a model for enhancing the endogenous, local industry, utilizing local capacities and resources.

SMEs in Macedonia represent 99,5% of the country business entities and are primary source for creating the economic dynamism of the country. They account for almost two thirds of total value added and nearly three quarters of all jobs. The data on the structure of active business entities by regions show that the highest share of 37.5% belongs to the Skopje Region.¹⁰

The data on the structure of active business entities by sections of activities show that the highest share in 2016 belongs to Wholesale and retail trade; repair of motor vehicles with 33.2% and Manufacturing with 11.1%.¹¹

From the point of view of active business entities according to the number of persons employed the highest share of 79.3% belongs to business entities with 1-9 persons employed. Only 5% of the total number of active companies are exporting abroad (3.362 companies). Five of them are creating 40% of the export, and top 100 create more than 80% of the export.¹²

¹⁰ State Statistical Office of RM, Regional Yearbook, Regions of the Republic of Macedonia ISSN 1857-6141, www.stat.gov.mk

¹¹ State Statistical Office of RM, News Release, No: 6.1.17.22, issued 23.03.2017 "Number of active business entities 2016", www.stat.gov.mk

¹² State Statistical Office of RM, News Release No: 7.1.17.08, issued 09.06.2017, External trade by enterprise characteristics, 2015, www.stat.gov.mk

The level of innovativeness of Macedonian companies is low.¹³

Companies in many cases as obstacles for growth are identifying: the access to finance, lack of adequate skills, lack of capital, lack of innovation infrastructure, weak cooperation between universities and the private sector, low productivity, frequent changes in the laws, dependence on imported raw materials, underdeveloped clusters etc.

An important structural problem is the lack of cooperation between scientific and educational institutions and industry, as well lack of networking and clustering.

Matching the data for 2016 for active companies in manufacturing industry and size of companies (from 10-99 employees), we can estimate that the target group for economic gardening support is around 1.200 companies, mostly located in Skopje. This number is much smaller if the financial results and potentials for growth, innovation, and export orientation are analyzed on company level. The concept of EG should focus on fast growing companies support, because they are eager to learn and improve their strategic issues and concepts in order to be better and more successful.

Comparing the logic of the EG concept, implemented in USA and Japan, for realization of the EG in the Republic of Macedonia, we have to analyze many aspects and precondition for success that covers the mentality, entrepreneurial spirit and culture, leadership, vision for growth, networking, skills and expertise available, institutional network etc. Because EG means delivering targeted support with strategic growth challenges by research specialists, the delivery of this highly specialized support, due to lack of adequate business support institutions, should come first from universities and institutes that are active on local level.

Universities can create and implement curricula for such program, by creating the research teams and pool of experts that will work with companies. Their expertise and specializations for strategic issues might be easily upgraded following the selected support concept and providing needed tools and databases. By networking the experts from universities as teams, can be delivered the set of specialized and comprehensive business support to the selected companies.

¹³ CEFTA Investment Report 2017, Prepared by the Vienna Institute for International studies, The European Union and CEFTA, April 2017, CEFTA Ref. CPF III 2016-10

Companies should spend set of hours in collaboration with the research team. The team should spend additional time behind the scenes working on company's issues. As potential issues are usually identifying and prioritizing sales leads and business opportunities, core strategy and business model, using social media to connect with customers etc. This shows that universities with their experts should be highly involved in the concept, which will be financially supported by government and local funds. Very important for success is increased awareness of the leadership from local self government, for their role and importance in creating and supporting the local businesses.

Economic gardening in Macedonia should show the benefits of networking, collaboration, information dissemination, following best practices and using tools for enterprise growth. It can show in practice how the government, business and universities can collaborate for the interest of the business community and growth, following the characteristics and needs of the local business and local tradition. Finally companies are key players on the market and creators of competitiveness of the economy.

In order to have a success of the project, it should be proposed as a long term measure, carefully designed and realized. Companies must see the difference in the quality of the lecturers for state-of-the art business practices by support given by high trained professionals.

Republic of Macedonia as a small economy with limited capacities must use all potentials very efficiently; focusing on human capital as a backbone for developing competitiveness and creating innovative economy. Strengthening the links and collaboration between universities and business is necessary in order to enable growth. Also, it is important to improve information dissemination and skills in companies, enable better access to finance. There is no place for doubt, collaboration and cooperation is our only future.

In order the EG to be created in Macedonia, first we have to prepare the soil – promote the concept and their benefits, identify key persons in the community that will support the idea and gain the support of local officials and other stakeholders, develop a functional network, identify and train the local experts (people from universities or individuals in the community who have skills and expertise in areas such as business coaching and mentoring, finance, employment/workforce development, research, marketing, meeting facilitation, organizing/managing projects, public speaking, legal support, fund raising etc.), provide finances on local level for implementing the concept, create local rules that support business development and implement the concept.

Conclusion

Finding models of economic policies that will enable growth of the regions is permanent challenge of the local and central governments. Economic gardening can be considered as an economic development model for supporting local and regional development based on endogenous growth. As a concept it was implemented in Japan and USA.

The model is based on delivering targeted support for existing companies that are already in a community, to help them grow, by assisting them with strategic issues and providing them with customized research. Main belief of the concept is that the small local entrepreneurial firms would be the engine for the creation of sustainable wealth and new jobs, and the role of the local government and city was to provide a nurturing environment within which these small firms could flourish. The success of this model depends and requires increasing innovation and adaptation from businesses and community leaders.

In USA the key role in implementing EG is given to the National Center of Economic Gardening and their certified experts as a private institution. They are organizing the programs within the states, focusing on local specificities and needs, by enabling better information and intelligence capacity of the companies. The local governments are financing the projects, because they consider this as an investment in sustainable and local growth.

In Japanese economic gardening concept, the active role is given to the public sector, institutions and organizations on local level. In Japan a local governments have tradition in developing extensive system for business support, and they are real partners with the business, universities, chambers and other local institutions often financed by the local government. They are networked and communicate efficiently in order to support the business. Their motto is “To know, to do, to gather”. The result is sustainable local development, based on strong domestic companies, utilizing different concepts due to different preconditions like: culture, mentality and tradition.

In The Republic of Macedonia, as a small economy, of extreme importance is implementing different models for support of regional and local development. Actually, supporting every promising company on local level.

Economic gardening in The Republic of Macedonia can be implemented by engagement of local players (local government, chambers, universities, institutions), by utilizing the capacities of universities and experts on local level

for delivering a special and comprehensive support to the local businesses. This will build trust, increase effectiveness and strengthen the entrepreneurial culture. The final outcome is “changing the culture of entrepreneurship in the region” and local growth.

Economic gardening offers a lot of benefits for the host, it offers a new way of thinking about supporting growth companies and letting business owners know how important they are to local economies.

References:

1. CIIP Competitive Industries and Innovation Program, Estimating Job Creation and Labor Market Transformation driven by Foreign Investments in Manufacturing in FYR Macedonia, October 2016
2. CEFTA Investment Report 2017, Prepared by the Vienna Institute for International studies, The European Union and CEFTA, April 2017, CEFTA Ref. CPF III 2016-10
3. European Commission, 2017, Economic Reform Program of the Republic of Macedonia, (2017-2019), Commission Overview, <http://data.consilium.europa.eu/doc/document/ST-8441-2017-INIT/en/pdf>
4. European Commission, 2016 SBA Fact Sheet for The Republic of Macedonia, Ref.Ares(2016)6625664-25/11/2016
5. Government of the Republic of Macedonia, Ministry of Finance, Economic Reform Program of the Republic of Macedonia 2017, www.finance.gov.mk
6. IMF Country Report No. 15/243, The Republic of Macedonia <https://www.imf.org/external/pubs/ft/scr/2015/cr15243.pdf>
7. Leydesdorff L. and Etzkowitz H. (1997). A Triple Helix of University–Industry–Government Relations. Etzkowitz H. and Leydesdorff L. (eds), *Universities and the Global Knowledge Economy* (pp.155-162). London: Pinter.
8. State Statistical Office of RM, News Release No: 7.1.17.08, issued 09.06.2017, External trade by enterprise characteristics, 2015, www.stat.gov.mk
9. State Statistical Office of RM, News Release, ISSN 1857-6141”Regions of the Republic of Macedonia, 2017”, www.stat.gov.mk

10. State Statistical Office of RM, News Release, No: 6.1.17.22, issued 23.03.2017 “Number of active business entities 2016”, www.stat.gov.mk
11. The World Bank, Former Yugoslav Republic of Macedonia, Policy Notes 2017
12. UNCTAD, Investment policy Review, South East Europe, Draft, UNCTAD 2017
13. United States Government Printing Office Washington, *The Small Business Economy: A Report to the President*, 2006, Chapter 6. https://www.sba.gov/sites/default/files/files/sb_econ2006.pdf
14. World Bank Group - FYR Macedonia Partnership Country Program Snapshot October 2015 <http://pubdocs.worldbank.org/en/626811443795254244/FYR-Macedonia-Snapshot.pdf>
15. Yamamoto Takashi PhD, Takushoku University, Tokyo, Japan, Lectures Outline of Economic Gardening: “Economic Gardening” for Local Economic Circulation, from the JICA Seminar Knowledge Co-Creation Program: Industrial Development and Promotion Utilizing Local Resources, July-Aug. 2017
16. http://www.chusho.meti.go.jp/sme_english/outline/04/01.html
17. <https://citiesspeak.org/2013/01/11/what-is-economic-gardening-and-why-does-it-matter/>
18. <http://edwardlowe.org/entrepreneurship-programs/economic-gardening/>
19. <https://www.nationalcenterreg.org/>
20. <http://www.kauffman.org/what-we-do/resources/policy/economic-gardening>
22. <https://www.opportunitylouisiana.com/small-business/special-programs-for-small-business/economic-gardening-initiative>
22. <http://kenplatz.nikkeibp.co.jp/article/otagaien/news/20130911/631710/>
23. <http://kenplatz.nikkeibp.co.jp/article/otagaien/news/20130911/631711/>
24. <http://www.m-osaka.com/en/>

JASMINA MIRONSKI *

**MANAGING INTERNAL COMMUNICATION IN THE MEDIA:
THE NEW PARDIGM**

Abstract

The aim of this paper is to analyse and explain the objectives of the internal communication in the media sector in Macedonia. The emphasis is put primarily on communication between leadership and employees, and also on the role of communication through different stages of companies and media outlets, promotion of media services and elements of communication at an internal level as well as influence on an external level – public audience. Internal communications (IC) is the function responsible for effective communications among participants within an organization and internal communications strategy, plans and programs are essential for successful development of any company, this is also valid for the media. The primary intention is to show the value and importance of internal communication and to explain how this should be improved within organizations, namely in the media in Macedonia. New trends might be considered as a paradigm of internal media functioning that leads to less listening of the employees (journalist) and to more implementing of the attitudes of management.

Key words: internal communication , strategy communication , media
JEL classification: M12, M29, M54, J50

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Introduction

Internal Communication is an extremely important tool within any organization and is considered as the core of successful work. In the media business, internal communication helps create a positive working atmosphere, providing more efficiency through a common debate and strengthening the confidence between journalists and editors. Exchanging views, brainstorming and joint meetings help the media to maintain basic values and principles of freedom of expression, to tell the truth, to present news in a balanced manner; to be a dogwatch in society and to mark all negative states and situations in the society.

Smart organizations understand the value in maintaining an ongoing dialogue with their employees, with the right strategies and tactics these dialogues can yield value of feedback from employees and can help foster a sense of belonging and investment in the company. Employees are more important today than ever before as their ability to interact with each other, customers, prospects, media and the general public, increases with each technological advance. Developing and managing ongoing strategic internal communications programs provide a wide range of benefits and can help deliver results that can positively impact a company's bottom line. Historically internal communications programs have focused on top down delivery of information from leadership to employees, with an emphasis on outcomes. However, today the current and project focus is more on achieving measurable outcomes, a pattern we see developing across the public relations industry, albeit slowly.¹

1. INTERNAL COMMUNICATION IN THE MEDIA BUSINESS IN MACEDONIA

The process of developing two-way and efficient communication, which is considered as an imperative of modern public relations in all spheres, also impacting the work of the organizations themselves, is not typical for a large number of media organizations in Macedonia. This phenomenon is practically becoming a sort of a trend in media organizations, not only in this country and the region, but also in societies that are far more democratic and which show increasing examples of abandoning the practice of constant,

¹ <http://study.com/academy/lesson/internal-communication-in-an-organization-definition-strategies-examples.html> (17.08.2017)

comprehensive and direct communication between the employers (editors) and journalists and having internal communication that runs solely in one direction.

The parallel, i.e. the comparison that we can make with the way in which the media functioned in the early 1990's, the early 2000's and up to 2010/11, points to the fact that things are changing, however not in a way that benefits the improvement of internal communication, rather the opposite – worsening it. The media sector is faced with one-way communication that mostly comes down to implementing assigned tasks, in the absence of wider editorial debates that were common in the past; discussions were held, opinions were developed that were 'for' or 'against' a certain occurrence, event or issue. Although in the past too it was the editor's point of view that prevailed in the end, which was reflected throughout various journalistic genres in the given media outlet, it is more than evident that in some segments the freedom of expression on different levels was more present, especially in specific time periods when a more liberal societal climate was dominant.

The practice in the past was to have daily staff (editorials) meetings; first between the editors and journalists, meetings within the specific sections, then the editor of each section held meetings with the managing editorial team of the newspaper or the electronic media outlet (radio/television), and the information was passed on in both directions and followed each line. After finalizing the editorial staff meeting, the section editor always passed on the decisions to the journalists. If there were some dilemmas, a problem or a misunderstanding, another staff meeting would be held at which the disputable opinions would be discussed.

The dynamic time we live in as well as the way of communication that favours new technologies – Internet, websites, blogs, Facebook, Twitter, Instagram, mobile telephones – Viber, WhatsApp, Skype – have imposed a new trend in the manner in which the media are organized and in which they function. The desire to save time, to streamline a procedure, to speed up a process, have all directly impacted the way internal communications function.

Compared to the past, instead of obtaining higher quality, more openness and transparency, respect of different opinions, diverse attitudes towards some issues that should be defended exclusively with sound, specific and precise facts and arguments – we are now faced with the prevalence of one-way communication. The message from management reaches the editorial management team and is then transferred to the journalistic staff, while much less attention is paid on feedback.

2. IMPORTANCE AND MODELS OF COMMUNICATION

Efficient internal communication is an especially important part of operations and an inseparable part of successful management of an organization and it is also an important part of successfully managing a media business organization. Conveying messages, processing and exchanging information, the way in which management assigns and receives tasks and in which it cooperates, are all part of communicating and without this communication the media could not function. It is the manner in which this communication is organized – one-way – when management assigns tasks that the journalists fulfil without objection, regardless of whether they agree with them or not, or two-way – when the employees and management talk, debate and align their opinions – that decides how the media organization will function and what kind of an image the public will create for that organization.

The basic types of communication are: verbal, written, non-verbal (contact) and e-communication.²

In communication, a large role is played by the value of information. It is clear that information have been of great significance, both for management and for the decision-making process.

Each governing and managerial function is based on information, both within and outside the organization. In order to be relevant in the decision making process, each piece of information must be: of high quality, significant, up-to-date, timely and complete. The information quality depends on how real they are. The more real a piece of information is the higher its quality, which provides higher work efficiency.³

² <http://hip.novi-liber.hr/index/keyword=komunikacija> (20.08.2017)

³ Pavlović Marko 1 Marković Jovica 2 Marković Dijana 3, Istraživanje odnosa sa klijentima u bankarskom sektoru EKONOMIJA, TEORIJA i PRAKSA, VIII • nu. 1, p. 47–66

Seven requirements that are important for harmony in the workplace have been detected:⁴

- Complete and truthful information that has a normal upward, downward and sideway flow
- Building trust between employers and employees
- Healthy and safe work conditions
- Fair and honest payment of the earnings
- Continuous conflict-free work
- Each employee should feel content for most of the working hours
- A feeling of pride for the company and confidence in its future

Experience has shown that many organizations, especially economic companies make mistakes in their relations when it comes to internal communications, because they are unaware of its importance and role or because they do not recognize the need to implement it correctly.

Good internal communication consists:⁵

- Open and objective communication
- Clear, jargon-free, succinct language
- Consistent and regular communication
- Two-way dialogue
- Understanding the audience and what appeals to them
- Using good verbal, non-verbal and written communicators
- A communication identity that people recognise and use
- An accessible medium.

Successful internal communication is believed to contribute to successful performance of external communications and to building a positive image, which is conducted on several levels. Efficient internal communication comprises three stages of functioning. The first one is at the very beginning – starting with recruitment, when the initial interview is held with the candidates for a certain job position and when all relevant data concerning the profile of the organization/company, its culture and tradition are shared. Then comes

⁴ Pavlović Marko¹Marković Jovica² Marković Dijana³, Istraživanje odnosa sa klijentima u bankarskom sektoru EKONOMIJA, TEORIJA i PRAKSA, VIII • nu. 1, p. 47–66

⁵ <https://www.hrzone.com/community-voice/blogs/johnslvester/the-importance-of-internal-communication> (18.08.2017)

the stage when all employees should be permanently informed about the work of the organization, as well as about all major events within the organization and those outside it which could impact its work or its public image. The final stage is the relations during the termination of employment due to some restructurings in the organization, a surplus of employees, downsizing, illness or retirement. Experience shows that some companies apply the practice of informing without prior notice, i.e. when the decision is final and cannot be changed. The justification for this is the efficient realization of set goals, but on the other hand, however, the employees are put in an unpleasant situation accompanied by stress. These has a strong impact on those who continue to be employed there, which consequently leads to disorganization, lack of confidence, uncertainty, fear, a decreased motivation to work and especially a drop of concentration and commitment to the job position. This is reflected in poor outcomes of the work, i.e. working just to get the job done – without bringing new ideas and innovativeness.

- Professor Daniel Quinn Mills from Harvard University has detected six internal communication problems that can have a severely negative impact on the work of the organization, of-Good internal communication consists of:⁶
 1. Management that is too commanding, and does not listen enough
 2. A very small part of what is being communicated is understood
 3. The content mostly refers to management, and not the staff
 4. Most of the announcements are propaganda
 5. There is very little sincerity
 6. Communications cover only a minor part of the possibility for changes.

Unfortunately, this manner of communicating has been particularly applied in certain organizations in Macedonia however a comprehensive analysis has shown that this is also becoming a trend in much more developed and democratic societies. Open communication, transparency of work, communication among the journalists at regular weekly or monthly meetings or annual informal gatherings in many foreign media houses has almost disappeared. This is caused by the growing trend of informal collaborations, using services of freelancers or stringers, who do not involve

⁶ Sem Blek, *Odnose s javnoscu*, Clio, Beograd, 2003, p.150

an obligation for more appropriate internal communication. New technology has also contributed to this situation, because all shapes and forms of mass communication, Internet portals and blogs now prevail, along with the potential for fast access to information at all times and anywhere in the world, which is a huge advantage in this modern world in which we live. On the other hand, in this type (kind) of published information, quality is often lacking, as well as literacy and truthfulness of what has been said / written by persons who may or may not be part of the media business. Changes have also been introduced in internal communication between the journalists and the superior editors, although this mostly depends of the personal efforts put in by the editor-in-chief or the regional manager that has an immediate or direct impact on the work and the results from it. The essence of the problem rests in the dismissive attitude towards the journalists on a local level, which is encouraged by the concentration of power that comes from the head office, regardless whether this concerns the functioning of a media outlets in the Republic of Macedonia where power is concentrated with certain political or business elites or if it is a media organization outside the country borders.

3. THE PROBLEMS OF ONE-WAY COMMUNICATION AND DOMINANCE OF RUMOURS

The problem with one-way communication with the employees is not noted only in the media sphere, but also in the work of other companies, and it is especially perilous for the success of the company/media organization when it comes to incongruence between the information that the employees need and what management is telling them. This is especially evident in companies/media organizations that are facing some hurdles in their work or which are faced with financial troubles that may determine whether they will continue to exist or not. According to the latest research in companies/media organizations in which there is a shortage of information and inappropriate internal communication, rumours reign supreme. Rumours in these cases are detrimental for the company / media organization and they reflect very negatively on the working atmosphere and on the work itself.

Even well-planned communication designed to reach across all levels and sectors within a company can become blocked or made inefficient, and when it does, informal networks, rumours, and uncoordinated messages often fill the void. The result is a nightmare scenario observed repeatedly

during times of crisis or in reorganizational situations, in which employees become more actively engaged in the acquisition of valid information than they are on their actual work.⁷

The management team that only sends messages containing work instructions, without getting relevant and truthful feedback concerning the actual work and events in the collective, is lacking realistic information. It is not aligned with what is really happening in the media organization. It is not rare for management to rely on persons / journalists who convey a distorted image of the state of the company, and this is most often done to score personal points and benefits or due to a lack of professionalism, lack of knowledge or due to inability to estimate the situations. This occurrence leads to wrongful decisions made by management, which inevitably leads to disintegration, i.e. a collapse of the organization or to many years of artificially supported functioning which once again will lead to nothing other than self-destruction.

Rumours, as a ‘method’ and a ‘tool’ are most commonly present in internal communication in a negative sense and they lead to misinformation – because being well informed excludes misinformation, which is not the case here. It should be avoided at all costs for employees in a company, regardless of the field in which it operates, and in this example it is a media organization, to find out through other media or other communication channels for instance that their company is facing a crisis, or about the ownership status (whether there are changes or not), whether the organization is being sold or shut down.

4. THE NEED TO DIRECTLY COMMUNICATE WITH THE JOURNALISTS

In order to obtain comprehensive knowledge about the atmosphere present in the company, the approach the journalists have towards their work and to obtain information about potential problems, various methods and tools as well as different forms are used. The most common shapes and forms of internal communication are:

⁷ <https://staffbase.com/blog/why-an-internal-communications-strategy-is-important-for-companies/> Published by Frank Wolf in Digital Leadership, Internal Communications App (22.08.2017)

- Direct meetings (greetings, introductions, conversations)
- Telephone conversations
- Written communication (e-mail, Internet, Intranet communications intended solely for the staff)
- Lectures and presentations
- Organizing trainings related to the work of the company (media organization)
- Listening and providing positive signals
- Communicating through questions and answers and taking notes

Analyses show that the people would be glad to participate in the planning of the work of the organization. In case of reorganization and major changes in companies, like for instance if a newspaper is undergoing a reorganization, the employees believe that they should jointly decide whether the newspaper should maintain the same profile, layout and sequence of sections after the reorganization, whether the format should be changed, whether it is better to continue to be published under the same name or if a new name should be created, in line with the changes. If the situation refers to a company or a firm, the questions whether the company should get a new corporate name, a new logo as well as whether the way of work should be changed and how it should be changed, and if there is a need to redefine corporate values should be answered. At the same time, in this process it is very important to carefully choose how and when these changes will be announced, how they will be justified and explained, and tasks and roles should be assigned to individuals, while emphasizing why that is being done and what the benefits will be.

In parallel to this process, it is necessary to redefine corporate values as much as it is necessary to clarify and explain why changes were necessary. The basic thing in reorganizing is to clearly specify and define the tasks, the role and responsibilities of individuals, as well as the potential benefit that might result from them. The media, as well as other entities are often faced with various types of communication that also involves problems, conflicts and reactions from citizens. It is worth mentioning that while in the business communications of the banking sector, for instance, the primary objective in recent years is to promote internal communications in order to increase efficiency this is not the case in the media sector.

In comparison, unlike in media organizations, in some companies that are part of the banking sector the main objectives of internal communications are:⁸

- corporate culture,
- coordination and exchange of information with the bank,
- motivation of the employees,
- loyalty of the employees and
- bank's image

In banks in which internal communication is of good quality and at a higher level, the employees belong to a system in which they, along with their management team, are working on realizing the work goals. The objective of good communication is for all employees to perform their tasks as well as they can, in a process that integrates work culture and the ability to communicate.⁹

Poor internal communication can lead to various problems in the functioning of the company and it is imperative to know how to communicate with superior officers, with colleagues and with customers.

5. INTERNAL STRATEGY AS ESSENTIAL PART OF THE INTERNAL COMMUNICATION

Internal strategy for internal communication development within the organization/ media is helping to achieve specific goals and creates a sense of community and trust among employees which helps the business to be successful. On the other hand internal strategy is providing several benefits:¹⁰

1. Employees understand the big picture and how they fit in. They feel valued, listened to, and like an important part of the team and the organization.
2. Employees are more productive and there is meaning to their work. As a result, they contribute more and feel better about their contribution and the organization so they stay on the job and help move the business forward.

⁸ Pavlović Marko¹Marković Jovica² Marković Dijana³, Istraživanje odnosa sa klijentima u bankarskom sektoru EKONOMIJA, TEORIJA i PRAKSA, VIII • nu. 1, p. 47–66

⁹ Petković, M., Janičijević, N., Bogičević., *Organizacija*, Ekonomski fakultet - Beogradu, (2002) p. 422

¹⁰ <http://bit.ly/lbg41> (17.08.2017)

3. Better leaders. Communication isn't just tactical anymore; it's about strategy. In this context, leaders are better able to understand employee needs and how to meet those needs to motivate, inspire and engage them.
4. Vigilant managers who have an ear to the ground.
5. A culture of communication. Communication is not an "event." It is a continuous process.

Organizations that understand the benefits of good communication, prioritize and constantly strive to achieve better internal communication are a breed apart. They achieve trust and credibility. They enable employees to do their jobs better. In accordance with the internal strategy is a plan for good internal communication.

The goal of creating a strong organisation, with a unified workforce, engaged in a common mission can only be achieved when a quality two-way internal communications plan is executed, functioning and implementing. For the new internal communication plan to be adopted and implemented with energy and commitment, it is important that key stakeholders are consulted. To be truly effective, your internal communications plan must include and reach everyone, allowing them to respond on a level they are comfortable with. There should be no part of the organisation that is ignored or considered unimportant, although there may be areas that require different tools to enable involvement in the communication plans.¹¹

Conclusion

The analysis of the state of the media business shows major changes, especially in recent years, not only in the Republic of Macedonia, but also globally. Historically speaking, the process of development of media and media business has always been directly and comprehensively linked with technological development and newly introduced processes in societies. Thus, today, when the world is living in an era of speed and IT technology, with a so far unseen dynamic, journalism is transforming, trying to find its path. In this surge of daily changes, new trends and a new paradigm in the media sphere, internal communication remains at the core of good functioning of companies/media organizations, and the need for information that is as clear, precise and comprehensive as possible - is essential, following all lines in the system of media functioning.

¹¹ <https://insights.staffbase.com/blog/> www.https://interack.intranet (22.08.2017)

Research has shown that for successful work it is necessary to build trust, to develop team work atmosphere and cooperation and to foster the feeling of belonging in the media organization where one works, to foster the spirit of self-respect and to support cooperation that leads to work satisfaction.

The fact that an inseparable part of internal communications are internal strategy and planning should not be overlooked, since their precise implementation leads to timely and detailed informing about the work and all potential changes in the structure of the media organization and they facilitate the functioning of the organization. This helps to avoid rumours, spreading lies, manipulations and it decreases the concern the staff may have about the events within the organization, which directly impacts the work and its efficiency. On the other hand, it should be kept in mind that the employees are both internal and external audience. Their voice is passed on, which impacts the image, reputation and the perception created of the organization by the public. According to this, the conclusion would be that without well-organized communication channels and correct placement of functional internal communication, no organization can conduct its work professionally and successfully.

References:

1. Bazić, M. *Poslovna komunikacija-savremeni put do uspeha*, Megatrend univerzitet, Beograd,2009.
2. Black, Sam., "The Essentials of Public Relations," Kogan Page Limited, 1993.
3. Blek, S., *Odnosi s javnošću*, Klio, Beograd, 2005.
4. Davis, Anthony. , "Everything You Should Know About Public Relations," Kogan page Limited, Great Britain, 2003.
6. Kotler, F., *Marketing menadžment*, Data Status, Beograd, 2006.
7. Noordewier, T. G., George, J., John, R. N. Performance Outcomes of Purchasing Arrangements in Industrial Buyer-Vendor Relationships. *Journal of Marketing*, 1990, p. 54.
8. Wouters, J., "International public relations," Amacom , New York, 1991.
9. Davis, Anthony., "Everything You Should Know About Public Relations," Kogan page Limited, Great Britain, 2003.

10. Hatton, Angela., “The Definitive Guide to Marketing Planning,” Pearson Education Limited, 2000.
11. Pavlović Marko¹ Marković Jovica² Marković Dijana³, Istraživanje odnosa sa klijentima u bankarskom sektoru EKONOMIJA, TEORIJA i PRAKSA Godina VIII • nu 1, Beograd, online – 2017, p. 47–66.
12. Petković, M., Jančićević, N., Bogićević., *Organizacija*, Ekonomski fakultet u Beogradu Beograd, 2002, p. 422.
13. <http://study.com/academy/lesson/internal-communication-in-an-organization-definition-strategies-examples.html>, August 2017
14. <http://hjp.novi-liber.hr/index/keyword=komunikacija>, August 2017
15. [www.same trends](http://www.same-trends.com), August 2017
16. [www.yutrend.com/rubrike/promocija/index.](http://www.yutrend.com/rubrike/promocija/index), August 2017
17. [www.knowledge source for marketing since 1998](http://www.knowledgesource.com), public relations – principles, tools, types, objectives, August 2017
18. <https://insights.staffbase.com/blog/why-an-internal-communications-strategy-is-important-for-companies> / Published by Frank Wolf in Digital Leadership, Internal Communications App, August 2017
19. <https://www.hrzone.com/community-voice/blogs/johnslvester/the-importance-of-internal-communication>, August 2017
20. [http://bit//ly/lbg41](http://bit.ly/lbg41), August 2017
21. <https://insights.staffbase.com/blog/> www.https://interack.intranet, August 2017

MIKI RUNTEV*

NEW TRENDS AND FEATURES OF INTERNATIONAL FINANCIAL MANAGEMENT

Abstract

The motive for writing a paper is to answer the question of whether and how much international financial management affects positively the overall socio-economic currency and financial relations in markets around the world in the context of international economic relations. This paper links questions about the relations between national economies and international financial markets, on the one hand, and on the other hand, monitoring and analyzing the movements of foreign exchange markets. The main research question is what are the latest trends, challenges and characteristics of international financial management after the turbulent conditions in the international economy, finances and currencies. For this purpose, in general, the paper has a section dedicated to theoretical and methodological studies. Therefore, the role and problems in the functioning of the financial markets, currency control, and their risks are described. In this context, the main characteristics and peculiarities of the international economic environment, analysis of globalization in the work and control of currency courses are revealed.

The research expects the following results: that international management and market relations are more actively required for a more comfortable economic environment on the development of international financial management.

Keywords: Financial Statistics, Monetary Policy, Monetary Data, Currencies, (euro currency, euro-dollars), Financial Markets, Economic and Financial relations.

JEL Classification: A10, F00, F02.

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Introduction

Considering the movements of the international financial markets in the last ten years. It became apparent that the transactions are more commonly made in the Euro currency. Before the start of the recession, the income of the american families were struck with inflation. The inflation was on a lower level then the previous 10 years. America had created an amazing economical machine, but apparently it only worked for the people on the top. As an example, one of the greatest economies of the world, the USA left millions unemployed. But even before the crisis, the US economy didn't deliver on what it was promising. There was a rise in the GDP, but most of the people felt as their living standards went down.

As a problem, due to the turbulences and risks, we single out the unresponsible conduct of governments across the world. Especially with the inequality of prices, and lack of control over currency markets. That was the main reason that the central banks of Japan, USA and Europe, were pointing out to the need for further lessening of the monetary policy in their countries. Those activities would lead to stabilization of the world financial markets, as well as economies as a whole.

The aim of this paper is to cover the new situations in the currency markets. We will take a closer look at the crisis with the fall of the dollar compared to the Euro. Today, after the era of the biggest world financial crisis, this topic is a lot more complex and as such it needs to be a topic of good international financial management in a very complex and risky surrounding. This is the base of this pieces, that the international financial management even today is facing new challenges because of the many very complex situations in the international economic and financial relations. In the globalized era those relations keep leaning towards negative manifestations of financial markets, and as such they deserve separate analysis for companies (micro level) as well as countries (macro level).

Theme of this paper is to introduce new characteristics, conditions and tendentious of international finances. They require new approaches to financial management, national and international regulations, new roles of the world and regional financial institutions. In this context,we uncover the main characteristics of the international economic environment, the analysis of the globalization of the work of multinational corporations and firms, turbulence and problems with currencies. Organization and control

of the international financial markets like ethics and social responsibility of the international financial management. Final aim is to gain the findings for financial stabilization, surpassing of current risks of currency markets as well as successful dealing with new challenges.

1. INFLUENCE OF THE EUROPEAN MONETARY UNION, CRISIS WITH THE EURO AND DOLLAR OVER THE NATIONAL FINANCES/ECONOMIES.

The claims that governments sometimes deal with failures shouldn't be imposed on the markets, as it is unfounded. Also the goes for the claim that after they fail, the markets should be abandoned. In a turbulent world like this the role of a financial manager is huge, requires a lot of knowledge, fines and following of the happenings in the world of international and national finances. The work of international organisations and regulators as well as a slew of questions is directly linked to the business environment. It's evident that the challenges are big and many questions aren't being asked anywhere in the world.

New level in the field of international trading has been given to services. The exchange of services keeps on getting bigger and their share has reached 1/3 of the world balance (around 1.5 trillion dollars). Characteristic trait of the new century is the sharp increase of the dynamics of the migration of the population. This in turn is a very important production factor as labor. In this process tens of millions of people are involved. The quantity and quality characteristics of the modern financial management and the international economical relations, are one of the many factors for development of national economy and finances.

With the forming of the new order of international markets and the consequences of the last world crisis and the new happenings on the international scene. It places the European monetary union (Euro zone) before serious issues and the need for new solutions and with it firmer currency courses and markets, should it reconstruct the existing financial and political structures or look for new more unstable markets. As an example of these markets is Russia, China, Japan, Turkey, India, England and other developed markets with more developed currency markets then the dollar and euro.¹

¹ Analysis of Miki Runtev PhD of economics, direction of international financial management.

The monetary union (Euro zone) being the whole of the financial-economic relations linked with the functioning of the main currency in the European economic integration as it's main characteristic, it was to increase the currency stability in the European Union. With this in mind it raised the question if it should have been turned into a basic component of the strategy for economic growth, or to give a new impulse on the European integration process and to show stabilizing effect over the international economic and currency relations. *With the development of the western European trade system and the increase of the level of joined cooperation and integration of the economies of certain countries, the need for a European macro economic policy was accepted.*²

The differences that we have in the financial - credit system of some countries lead to having inconsistency in the prices, the interest rates as well as the currency worth etc.

As one of the main financial institutions, the European Central Bank (ECB), is a bank which has a lawful mandate to create a price stability in the euro zone and the euro as a singular monetary asset. Reflecting on the euro, professor Robert Mundell who is also called the intellectual father of the Euro, back in 2009 said:³ *„Creation of the Euro zone will inevitably lead to competition in the dollar zone from a standing point of perfection in the monetary policy as well as regulation of other currencies.“* Because of this, the world today is facing a bipolar outcome in the international monetary system, if we take into account the newly developed zones as well as the quick expanding economies in the world. At the same time, the Euro will unleash powerful forces on the market that will transform the way in which the European citizens live and work. When it was created the expectations were that in the following years it should bring in increased efficiency, bigger productivity, better standard of living and decrease in the unemployment levels. For businesses, the Euro should have meant decrease in the transaction costs, useless waste of resources in dealing with few European currencies, increase and domination in the trade. The risks were also overseen, of course only in a price that eventually in the end the client will be the ones to take.

² Gagarina G.Yuri, Economics of the EU, Moscow State University – Lomonosov, Moscow 2003 y, pg.187

³ International Monetary Fund, Finance and Development, interviews economist Robert Mundell, September 2016, accessed on June 27, 2017 year, pg.4

The gains and problems of the increased foreign part in the banking sector in a national economy is a topic of discussion of many theoretical and practical people in the field. This question is getting even more valid today in a state of a financial crisis. Even though this topic is the focus of many research papers, many answers are left partial and open due to the limitation on the relevant data and the uncertainty of the choices of key leaders of the EU. The economic state in the Euro-Zone led to a relatively low foreign requirement of domestic goods, which are still seen as basic risks for the domestic economy. On the currency market there wasn't any noted pressure on the course of the currency and the stock reserves. This led to the increase of trust of the EU citizens in the European trio of creditors (European Union, European Central Bank and the International Monetary Fund). The citizens have a point when they say now is the time that Europe starts dealing with the problems in its own way. Taking into consideration that EU is no longer in a critical state, it has the necessary instruments to deal with it's own problems as well as to bring a democratic, European solution.

Namely, in 2016 the Euro notes a growth tendention in relation to the US dollar. In the world currency markets the Euro got stronger and reached it's highest level in two years. The European central bank started a policy of reduction of the stimulus measures. The value of the Euro in co relation with the dollar has a slight increase of about 1.7% at 1,1660 dollars, but there was a point at which it reached 1,1682 dollars and is the highest level from mid 2016. Also it's important to note that the dollar got weaker when compared to the Japanese Yen, so the value dropped 1,2% to 110,94 Yen. That state of the dollar index showed the value of the american currency in relation to the six most important world currencies and it dropped for record 1,4% down to 93,88 points, which is the lowest level in a year.⁴

But, accordin to the old/new director Werner Hoyer of the European Investment bank, a bank that represents the interests of the countries members of the EU, he thinks that the EU awaits new challenges, especially with dealing with the loss of the United Kingdom as a member of the board of banks of EU.

The influx of currency based on the exports of goods from those countries is smaller. Direct reason for this is the growing deficit of the current budget of those countries. For some of these countries (Romania, Bulgaria, Hungary, Serbia, Ukraine, R.Macedonia), the state of the deficit in their

⁴ [www.faktor.mk/archives/ source=rss&utm_medium=rss&utm_campaign=fundamental](http://www.faktor.mk/archives/?source=rss&utm_medium=rss&utm_campaign=fundamental) and technical aspects of the currency pair-eur-usd, accessed on 28.06.2017y, pg.3

balance reached a double digit value compared to their GDP.⁵ In any case, the global economic crisis led to drastic reduction of the flow of currency based on foreign investments. There was also a reduction of foreign direct and portfolio investments in the previous 5-7 years. This helped finance a significant portion of the deficit of the said countries. The fall of the credit rating caused those countries to have less and less access to foreign credits. That in turn led to a very powerful pressure over on the currency value and the national currencies.

Some of those countries in a situation where there was a much higher demand than supply for foreign currency allowed for free fluctuation of their currency, which caused their depreciation. In the past many citizens and numerous companies from the countries of Eastern and Central Europe, borrowed from banks in the Euro-zone, or Swiss Banks. Those credits were given in Euros, Dollars, Swiss Francs or some other currency but at a much lower interest rate than the credits in their domestic currencies.

The IMF recommended to the countries of Eastern and Central Europe, that were already part of the European Union to quit their national currency and have the Euro as their national Currency without having to formally become part of the Euro-Zone and fulfill the needed criteria for it. The IMF thought that by doing this they can solve the problem with the external debt and also restore the faith in the national currencies and stop them from getting in a even bigger currency crisis.

The percentage of the global growth of 2016 was 3.1% and that is a mild slowing down in relation to 2015 year. That was because of the improvement of the policies in the developed countries, but also at the group of fast growing countries and countries in development. The newest projections of the IMF show increase of the global growth during 2017 and 2018 to 3,5% and 3,6%. This growth is due to the gradual adaptation to the global economy after the global crisis and the favorable conditions of the financial markets. For 2018 there aren't many big changes⁶ in the forecast even though the risks around the global growth are rated as positive. At long term though they still stay unfavorable and are mainly influenced on the ability for increased protectionism and risks. As one of the causes for global inflation in 2017 it points to it's further hastening, mainly alluding to the higher prices of crude oil and energy.

⁵ [http://www.nbrm.mk/information from international financial markets](http://www.nbrm.mk/information-from-international-financial-markets), May 2017 year.

⁶ www.nbrm.mk, The analysis is based on the IMF's World Economic Outlook, the ECB's Economic Bulletin; Bloomberg; Reports by Roubini Global Economics and Capital Economics, 2017 year.

These states with prices leave space for inflation in the upcoming period, and with this it increases the uncertainty in the ambient for leading of a monetary policy.

The steady growth of the global economy continued in the last two to three years in developed countries and in emerging economies and developing countries. In the most significant developed economies, the trend of growth was observed in the United States and Japan. Compared to the economies of the eurozone and the UK, they achieved similar growth rates in late 2016. The US economy accelerated the GDP growth in the fourth quarter (from 1.7% to 2% annually), mostly due to the increased domestic demand.⁷ Compared to that, the growth in the economic activity in the euro area reached 1.8% in 2016, mainly from its own consumption and exports. Namely, the economies of China and India also experienced a high growth trend. Some signs of recovery are also noted in the Russian economy, which, according to forecasts, amounted to about 3.4% - 3.5%, this is also due to improved expectations for the growth of developed countries. It is important to note that the countries of the region also noted a tendency of economic growth for 2016. For example, Romania registered a 4.8% growth trend annually. The Turkish economy experienced a 3.5% growth trend, mostly due to personal consumption.⁸

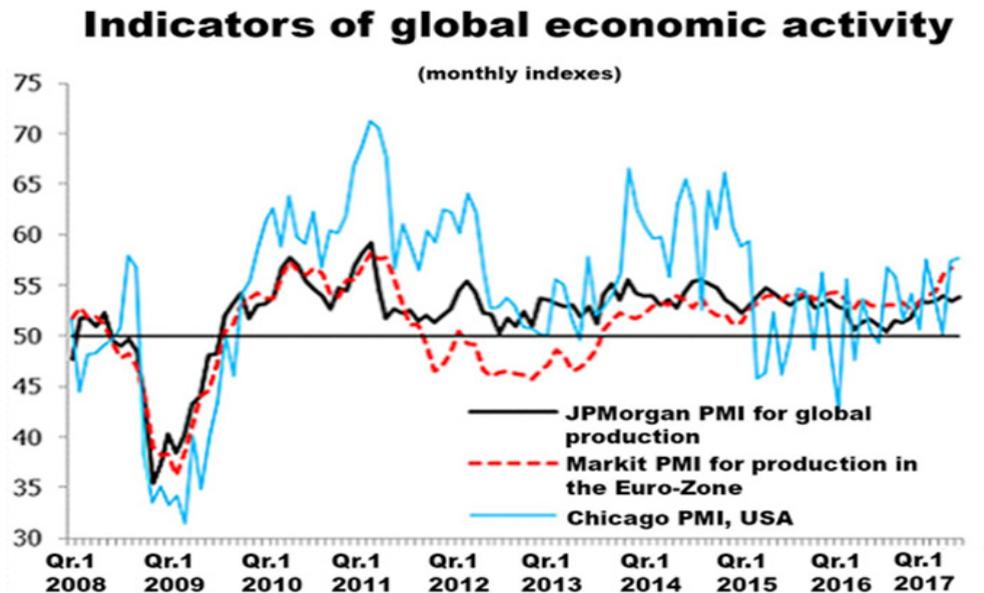
Compared to other economies, good growth rates were recorded by Albania, Croatia and Bulgaria (4%, 3.5% and 3.4%), as well as others due to personal demand. Serbia also showed a good growth of 2.4%. While the Republic of Macedonia has seen a tendency of growth from favorable movements where for 2016, annual GDP growth was 2.4%. But the projections for 2017 - 2018 indicate a slowdown in the tendency of growth in the Macedonian economy.⁹

⁷ www.nbrm.mk, Quarterly Report, 2017 y, pg.5

⁸ <http://bankarstvo.mk/index.php/ostanato/item/6161-mmf-ne-ja-promeni-prognozata-zarastot-na-svetskata-ekonomija>, accessed on 27.07.2017 year, pg.3

⁹ <http://bankarstvo.mk/index.php/ostanato/item/6161-mmf-ne-ja-promeni-prognozata-zarastot-na-svetskata-ekonomija> i [index.php/licni-finansii](http://bankarstvo.mk/index.php/licni-finansii), accessed on 28.07.2017 year, pg.5

Graph 1: Movements of the indicators of the inter-state economic situation and their activity from 2008 to 2017 year



Source: www.nbrm.mk, Quarterly Report, May 2017, Market, ISM – Chicago, 2017 year, pg.8 – *PMI – index can have a value between 0 and 100. The way it's calculated is by taking into account the percentage of respondents that reported an increase in the economic conditions relative to the previous month. The reference value of the index is 50, which indicates unchanged economic conditions. The value of a higher or lower than 50 indicates an economic expansion or contraction. Accessed on 29.07.2017 year.

Thus, today the world is more actively looking for the new global currency instead of the dollar, the euro, the yen and the pound, as a substitute for the current international currency system. The Chinese yuan is not mentioned as an alternative, but it is said that China is in a good position to play the leading role because of the good economic fundamentals and the increasing influence in the world. Strong economic growth made China the world's second-largest economy, but its currency, due to the tight control of the capital market, did not play a significant role outside the country's borders. This is due to the fact that Beijing has reduced its restrictions in order to strengthen the international role of the yuan. Thus, China and Japan after 2011 y, began with a direct exchange of the yen and the yen. To this end, the US dollar and the movements of currencies against the dollar are a very interesting phenomenon in the global financial market. The situation with the currency of

the dollar has a major influence on the general market movements. Given that the dollar is the main world currency, which significantly affects the prices of other currencies. The US dollar became the world's leading currency at the end of World War II and was the basis of the Bretton Woods agreement, due to the reason that then the other currencies were virtually tied to it.

Processes with the currencies and the dollar, influenced the financial conditions of the post-war world. Even today, it is further influenced as a consequence of the complex geopolitical relations on the world stage. Today, the dollar has great importance on the international financial market because, the dollar is a reserve currency in many countries in the world. This is very important, because that is how the situation is related to the US economy, which is still today in 2017 the leading economy in the world. Therefore, the strength of the US economy should be in the direction of being practically displayed on the basis of parameters describing the currency of the dollar.

It is also expected that the course of foreign exchange must reflect the economic reality. As the most developed countries have to work on the stability of their currencies, as well as the emerging economies, other states must allow free market movement of the value of their currencies. Today, the world economy is recovering rapidly, but the leaders of the most developed countries must continue to work on overcoming trade differences, currencies and their risks.

2. CURRENCY CONTROL AND RISKS

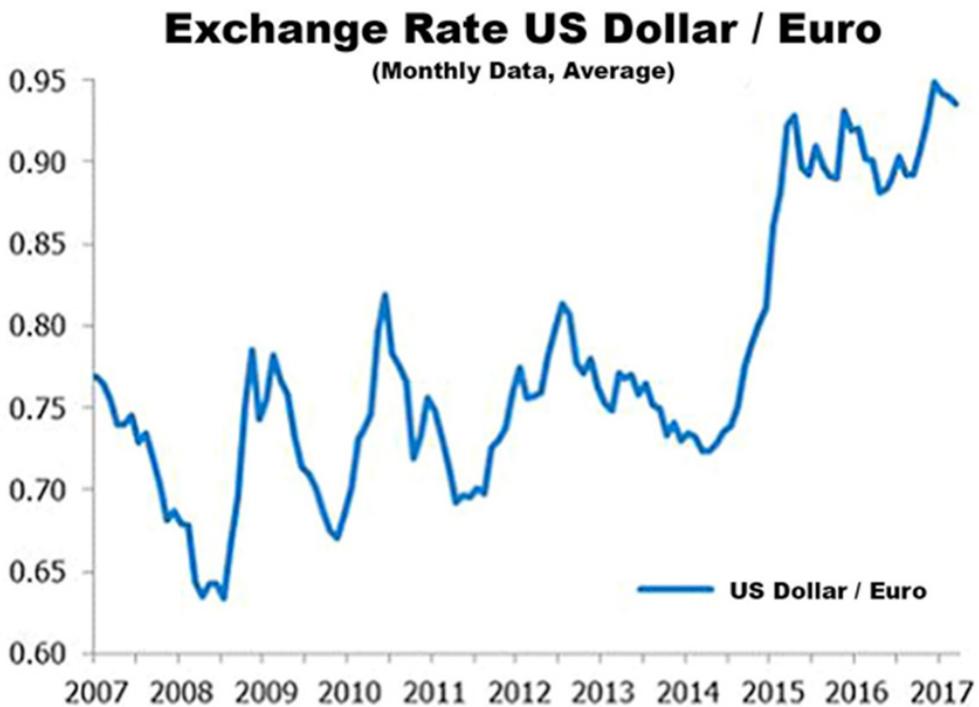
Another key risk in international investment is the *currency risk*. Namely, currency risk occurs at different levels in the investment process. At the beginning of the process, limited partners face the currency risk between the point at the time when they are committed to the fund of different currencies and the time when they receive capital calls. Distributions are made in the currency of the fund, but also to the extent that the exchange rate moves between the *currency of the fund* and *the local currency of the limited partner*. This can affect the performance of the fund, viewed from the perspective of limited partners. Empirical evidence and confirmations about the movements of currencies have a really material impact on the performance of private investment funds, regardless of the fact that currency movements are largely unpredictable. Therefore, the protection against currency risk is recommended.

The risks in the long-standing turbulence of the US dollar have resulted in several times, both with growth and with its decline in 2017. That led to a drop in a record low compared to the value of other world currencies. As the main risk factor, and the reasons for the fall of the dollar, the problems on the American political scene can be highlighted. There was a fierce assault on *President Donald Trump*, who „collaborated“ with Russia to become an American president. Another reason for this is the poorly implemented foreign and economic policy that has resulted in counter effects and has relieved the United States on the global stage. The reason plus this was the record value of the euro that stabilized after the ECB’s strong efforts and monetary policies for larger investments rather than restrictions. Namely, in conditions of relatively higher oil prices and the constant interest of foreign investors for investments in Russia, there were risk forecasts. The ruble from the beginning of 2017, in the past six months, varied by about 7% compared to the US dollar.¹⁰ *Special accent is put on Russia and China who intend to break the dollar in the next decade.* With this tendency of the fall of the US dollar, which in only four months fell to a record 10.2% against the euro, more investors believe that now is a good time to buy the US currency. But the question arises, what if the dollar from the current level will significantly strengthen ?. Thus, some analysts of „Admiral Markets“¹¹ argue that the reasons for the sharp weakening of the dollar in recent months in relation to all other important world currencies should be sought in the movements of the currency market as of 2014. Therefore, the situation at the time was quite different, the dollar began to sharply strengthen as a result of the deliberate increase in interest rates in the United States. For big banks, investment funds, private investors, it was a sure sign that the crisis was over and massively began to transfer capital from other currencies into dollars. Namely, analysts of „Admiral Markets“ also consider that the current trend of weakening the dollar against the European currencies that just started, suggest that it is not yet time for long-term investments in the dollar.

¹⁰ www.worldbank.org/Documents/, Partnership with the Republic of Macedonia,06.2017

¹¹ Admiral Markets, <http://www.dailyforex.com/> EUR/USD Forex Signal, [http: 2017/08/eur-usd-forex-signal-august-7-2017/82286](http://www.dailyforex.com/eur-usd-forex-signal-august-7-2017/82286), accessed on 31.07.2017 year, pg.3

Graph 2, Condition of the exchange rate of the dollar against the euro, since 2007 measured quarterly by 2017 year



Source: Eurtostat 2017 year, www.nbrm.mk, *Quarterly Report, May 2017*, pg.11, accessed on 29.07.2017 year.

This situation with the weakness of the dollar has inflicted major problems on central bankers around the world in relation to many global currencies. Thus, the risk of inflation is reduced at a time when many have been thinking about how to get out of unsustainable politics for years. The dollar, in relation to other currencies, should reflect the strength of the US economy in relation to other countries. Some governments actively participate in those markets to influence the value of their currencies.

The United States has remained on the margins in recent decades. Past administrations were not well focused on the expected challenges. As a result, they have pushed other countries to stay out of the market. The Bush and Obama administrations had made progress in persuading China to allow the value of their currency to climb in relation to the dollar, which moves to overcome the risks of trading in currencies.

Conclusion

This paper seeks to give direction in perspective, international financial management to be more involved in the globalized world. In addition to all the challenges and problems faced by new trends and features of international finance, national financial markets and multinational firms. The impact of the process of globalization on the world economy on international relations has proved to be very contradictory. The vast, scale of transnational trade, capital and migration flows were governed mainly by market laws. They have proven capable of triggering financial and other crises of an international character (with a typical example of the current global financial and economic crisis. It was provoked by the crisis in the US financial system in early 2008. Issues of ecology, social policy, rational use of natural resources, demography, science, education, health, remained in the background as problems to be solved. On the other hand, the rapid growth in the volume of business, not only in the main centers of the world economy, but also in many other countries (China, India, Brazil, Indonesia, Mexico) has drastically increased the pressure on the resources of the country's potentials And the environment.

So far, this paper identifies the need for writing what is expected in the future of the International Financial Management - to develop in the direction of the countries and international financial markets to go towards overcoming and solving many of the problems of the financial and currency crises , to open up a greater volume of markets, where people can buy and sell goods and services. With this, the markets will be better oriented towards investors. Banks to allow the flow of funds from people who lack productive investment opportunities, to people who have such opportunities. Therefore, markets should always be prone to irrational enthusiasm and optimism. Also, to be, irrationally accepted, that the removal of currency risk (in the single currency there will be no risk associated with changes in the euro / dollar value). For example, this means removing the sovereign risk - the risk that a state may fail to repay what it owes. The politicians who contributed to the creation of the euro were not thinking thoroughly about the economy of what was created. They do not realize that the way the euro was created actually increased the sovereign risk.

In conclusion, it can be determined that there are some fundamental directions and reforms in the eurozone structure and policies imposed on Member States, with a well-organized single currency or another new

system called the „flexible euro“. With its lessons about the consequences of globalization in a deeper world economy, it can be said that the survival of Europe depends on it.

As a fundamental problem we can single out, the situation with the modern foreign exchange markets, which in the last ten years has developed in an extremely complex and dynamic system, under the influence of many economic, political and psychological factors, reacting uninterruptedly to their changes. Compared to material sphere, the level of uncertainty and unpredictability remains considerably higher.

References:

1. Bekaert Geert, Robert J. Hodrick, International financial management, Columbia University and the National Bureau of Economic Research, 2nd ed, 2009 y.
2. European Union, www.europa.eu.int.org, Materials from international organizations 2015y.
3. <http://www.imf.org/en/Publications/WEO/Issues/2017/07/07/world-economic-outlook-update-july-2017y>.
4. IMF Committee on balance of payments statistics 2016 annual report/ Approved By Louis Marc Ducharme, Prepared by Carlos Sánchez-Muñoz, Paul Austin, Alicia Hierro, and Tamara Razin of Statistics Department.
5. Industrial Development, Global Report. – Vienna. UNIDO 2015 year.
6. International Currency Fund - <http://www.imf.org> 2014
7. International Financial Statistics – Wash. DC. IMF, www.imf.org/external/index.htm, 2016 year.
8. McGraw-Hill, International Financial Management, London Stock Exchange-LSE, (2008y).
9. Mishkin's Federik, Book, Money, Banking and Financial Markets, Money Market, 2010 year.
10. Stancev Vladimir, Globalization and Regionalism, Institute for Liberal Studies, N* 34/2002, Sofia, 2010 year, pg.58
11. World Economic Outlook. – International Monetary Fund, World Economic and Financial Surveys, Washington, April 2017y.
12. World Tables – Wash. DC. World Bank World Development Indicators, 2013 year.

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