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The interest and need for publishing of the journal were continuously increased all these years. It covers theoretical and empirical researches in the field of economic and social development, demography, education, corporate governance, international economics, international management, administrative management, corporate and public finance, economics and tourism management, agricultural policy and agricultural management, marketing and marketing management, entrepreneurial management and other areas in the field of social sciences.

The journal "Economic development" has an open approach in accepting and publishing the papers reviewed by an international editorial board consisting of domestic and foreign experts from different countries. The journal is available in an online form, through the database of academic papers published by the Institute. On the path of development of the economic thought and building a wide network of research and professional cooperation with other countries, new criteria have been implemented to improve the journal's quality and its recognition. In this regard, during last years, significant changes have been made in the design and editorial policy for its international positioning among other scientific journals worldwide.

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ZORAN JANEVSKI*
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MUNICIPALITIES IN NORTH MACEDONIA IN THE ERA OF DIGITAL ECONOMY

Abstract

The main objective of the paper is to evaluate how municipalities in North Macedonia use the benefits of digital economy and to assess the level of digital transformation of existing e-services at municipal level in the country. The focus of interest in this research are the e-services related to the following three functionalities: 1) transparency and accountability, 2) communication with the citizens and companies, and 3) approvals, permits and other services. The research was conducted through on-line observation of the websites of the municipalities in Republic of North Macedonia, and a separate set of indicators have been defined for each of the three studied functionalities. According to the research, the application for “issuing and monitoring construction permits” is the most dominant e-service in the municipalities in Republic of North Macedonia, followed by “Publishing the budget of the municipality for the current year” and “Publishing the minutes and adopted decisions of the Municipal Council”.

Keywords: Digital economy, digital transformation, e-services, municipal services, digital services

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Introduction

Digital Economy is the economic activity that results from everyday online connections and interactions among businesses, people, systems, processes, devices and data.

The development of information (digital) technology is directly affecting the development of the digital economy. The term Digital Economy was first applied by Don Tapscott (1995), in the context of the challenges and opportunities offered by technology and global connectivity for businesses.

The digital economy is influenced by digitization and digital transformation. Digitization, which takes place for several decades, has affected almost every sector of the economy. Digital transformation launched the first computer revolution in the 60s, allowing automation of tasks and standardization of processes. Followed by the revolution in information and communication technology (ICT), which imposed new standards for digital communication and doing business for all companies that use the Internet. However, over the last two decades, radical changes were caused by ICT, known as the third revolution of ICT improved the full potential of the digital revolution by introducing the phenomenon of the digital economy. It essentially means “Digitalization of everything” and it’s based on the latest technological developments such as cloud computing, mobile computing, big data and Internet of things (IoT).

However, digital economy is not only based on digital technology. It basically deals with use of information technologies to promote the existing economy in a direct way, through the development of the ICT industry, or indirectly through the development of new businesses and introducing efficiency to traditional ones.

To maximize the potential of the digital economy as innovation process, besides competitiveness and inclusive growth several other issues must be considered, such as infrastructure (technological and institutional); availability of applications and services (e-services) based on digital technologies and new business models used by individuals, businesses and governments; confidence in the safety and security of online networks, services and applications; and relevant skills to use ICT and digital processes.

Digital transformation gives local and central governments opportunity to transform their business models, create new processes, generate greater utility, and facilitate new products and digital services, so called e-services.

World Bank (2009) defines the term e-services as the use of information and communication technologies (ICT) by government institutions that contribute to the transformation of relations with citizens, businesses and other government organizations.

According to Janevski et al. (2014: p.21), the concept of the development of e-services (at the central and local level) has the goal to:

- promote transparency, efficiency and effectiveness in the delivery of public services to the citizens and businesses, as well as to
- improve communication between the public, private and civil sector.

In the process of introducing e-services, for the purpose of providing greater benefits for the citizens and the business sector from their use, it is necessary to simplify the procedures, increase the degree of interactivity and feedback by the public authorities responsible for delivering the services in the traditional way and electronically, as well as to take care for improving the stability, availability and security of the e-services.

Otherwise, digitalization is defined as “adopting or promoting the use of digital or ICT technologies by an organization, industry, country, etc.” (Brennen & Kreiss, 2014). In the wider sense, it is defined as “economic and social transformation triggered by the massive adoption of digital technologies to generate, process, share and transact information” (Katz et al., 2014). Defined in this way, it can be said that the influence and importance of digitalization are in the process of transformation, which recently has started to have a strong influence on local and national governments, enabling them to move to a so-called e-government, that is, to a government that uses ICT technologies for supporting modern, participatory and accountable public services. The introduction of digital technologies in governments, and especially municipal services, has gradually intensified since the 1990s. Here, a distinction should be made between digitalization, which refers to the use of digital technology, and e-government, which uses ICT technologies in order to improve the delivery of public services, specifically, e-services.

The process of delivering e-services consists of the following levels: (1) information, (2) one-way interaction, (3) two-way interaction, (4) transaction and (5) personalization (Capgemini, IDC, Rand Europe, Sogeti & Dti; 2010).

In the Republic of North Macedonia, following the example of EU members, 20 referential e-services were being benchmarked a longer time (of which 8 intended for businesses, and 12 for citizens) and the value of the

indicators „online sophistication“ and „full online availability“ were measured and compared with other countries.

In the Republic of North Macedonia, as in the EU, these 20 e-services from year to year kept receiving higher values of the indicators „online sophistication“ and „full online availability“ (Gusev, Spasov & Armenski, 2007; Sabic, Janevski et al., 2010), hence, the attention has lately been turned to two main directions of developing and promoting e-services at the central and local level. The first one is increasing the number of e-services, of those with maximum value levels of the “online sophistication” and “full online availability” indicators, while the second one is in regards to taking care to promote user satisfaction of these e-services and increasing the impact of their introduction (Deloitte Consulting and Indigov, 2008). As a result, a large number of e-services have been introduced at the central and local level in these past several years in the Republic of Macedonia, of which many seriously give users the opportunity to realize interactivity and transactions.

Additionally, Governments are prioritizing digitalization of services that generate income, and in 2012, the EU measured the progress in digitalization in four types of government services (EU, 2012; p.8):

1. Income generating for government e.g. taxation
2. Registration e.g. births, marriages, deaths
3. Service returns – health, social, libraries
4. Permits and licences – building, education, passport.

Simultaneously, efforts are being made for introducing a regular practice of examining user satisfaction of the e-services in the country and the impact from it. The first such research in the Republic of North Macedonia that was carried out in 2009 came to knowledge about the directions in which the process of introducing new e-services at the central and local level should go (Janevski, Stojanovski & Jashari; 2009). Actually, user satisfaction and the impact of introducing new e-services are perhaps the most important two of the eight measures, which through questionnaires and surveys measure the quality aspect of e-services. (Batagan, Pocovnicu, & Capisizu, 2009; p.377).

1. PRIORITIES IN THE PROCESS OF INTRODUCING NEW E-SERVICES

The process of introducing e-services is long and cumbersome, and more often ends with failure than with success. That is why it is important for it to be led strategically, well thought out and to continuously monitor the results from its operation, and to apply corrective measures if needed. In that direction, the process of prioritizing in the introduction of e-services at the central and local level is of essential importance.

Prioritizing in the implementation of e-services is important in order to enable governments to achieve better allocation of resources in selecting between options for investing in various e-services. In the selection of these priorities, consideration should be given to the following aspects (World Bank, 2006; p.2):

1. Structure and manner of managing the process of introducing e-services
2. Cost and benefit analysis of the individual e-services
3. Framework for determining priorities – criteria, risks and stakeholders.

When it comes to the structure and the manner of managing the process of introducing e-services, the following three main approaches can be identified:

- Centralized – top-bottom
- Decentralized
- Target-oriented, with decentralized implementation.

In the Republic of North Macedonia, when it comes to introducing e-services at the local level, all three approaches can be noted, but so far, a more serious analysis has not been made on the good and bad sides of their application.

In terms of a cost-benefit analysis of the individual e-services, so far, such an analysis has not been conducted in the Republic of Macedonia, or at least publically available information or data on the internet cannot be found for such an analysis. Comparison of the relative values of the implementation of the various e-services is the BASIS for the selection of key priorities for e-services at the local level. There are several quantitative methods for making the comparison, all with their own advantages and shortcomings, such as for instance: Investment return, Portfolio analysis, Scoring model, Capital budgeting models, Real options pricing models, etc. (Laudon & Laudon;

2010). Nevertheless, what makes this analysis for e-services different from the analysis of classic MIS is that it should incorporate the cost and benefits of the municipality itself that are achieved with the introduction of the specific e-service (along with the operational efficiency and political benefits), thus, the analysis should incorporate even more the cost/time of the users (citizens and businesses) for receiving a certain service from the municipality and the benefits from it. For this purpose, a so-called concept of IT public value is introduced. One of the more major researches in this direction is the one that was conducted by the EU within the framework of the eGovernment Economics Project (eGEP), when it identified and analyzed the costs and benefits of introducing e-services in the European Union (Codagnone & Boccadelli, 2006).

For the third aspect important for determining the key priorities of e-services that need to be introduced in the municipalities in the Republic of Macedonia, that is, a framework for introducing priorities, the first step is to determine the criteria and risks. The criteria are naturally defined based on the goals of the programs of the municipalities, hence based on different programs, there can be different criteria for prioritizing. However, the often applied priority framework for e-services at the local level consists of (World Bank, 2006; p.10):

- Strategic side – what are the main sources of value for its users (citizens and businesses) that the municipality wants to create and deliver?
- Benefits for the users – which e-services will mean the greatest benefit for the citizens and businesses? Which e-services do they want the most?
- Benefits for the municipality – services that are used by a large number of users, offer a significant possibility for reducing costs if they are introduced as e-services; and
- Ability to be realized – how the projects for introducing different e-services differ one from another in regards to their costs, risk of failure and time needed for their realization?

An important aspect in introducing e-services at the local level is to provide access for citizens and businesses to the needed ICT infrastructure that they do not own, it in order for them to use the appropriate e-service, or to provide the necessary mechanisms (publically accessible and free internet access points for using the municipal e-services, along with the necessary assistance and support for overcoming problems related to the insufficient e-skills of users) for their unhindered use. Furthermore, it is necessary to make an analysis of the need for delivering appropriate services simultaneously (traditional way and electronically) and of eventual required use of certain services only electronically.

2. METHODOLOGY

The research has the goal to analyze the e-services that are delivered by the municipalities in the Republic of North Macedonia, from the aspect of the following 3 categories of functionality:

1. Transparency and accountability
2. Communication
3. Approvals, permits and other services

The research was conducted by using the following 2 research instruments:

1. *Interviews* – carried out in the phase of preparing the methodology of this research with representatives of several municipalities in the Republic of North Macedonia. The interviews were carried out in the period from 10.10.2019 to 23.11.2019 in the municipalities: Tetovo, Cusinovo, Veles and Dojran. Individual interviews were also realized during the observation of the websites of the municipalities in the Republic of North Macedonia, for the purpose of checking and verifying the results received from the observation process.
2. *Online observation* of the websites of the municipalities in the Republic of North Macedonia – performed by one observer in the period from 24.11.2019 to 02.12.2019. The addresses of the websites of the units of local self-government were downloaded from the list of municipalities with their contacts available at ZELS's website (www.zels.org.mk), where all municipalities in Republic of North Macedonia are members. The following 11 indicators were determined for observing the three functionalities given above:
 - a. The following 4 indicators are defined for the functionality *Transparency*:
 - i. I1 – Timely publication of the agenda of the council sessions
 - ii. I2 – Have all public procurements been published
 - iii. I3 – Has the budget for the current year been published
 - iv. I4 – Have the minutes and adopted decisions of at least the last three meetings of the municipal council been published

- b. The following 3 indicators are defined for the functionality *Communication*:
 - i. I5 – E-form for reporting problems
 - ii. I6 – Possibility for asking the mayor questions
 - iii. I7 – Available *e-mail* contacts of municipal employees
- c. The following 4 indicators are defined for the functionality *Approvals, permits and other services*:
 - i. I8 – Applications for issuance and monitoring of construction permits
 - ii. I9 – Forms for registration of property tax
 - iii. I10 – Publishing job announcements
 - iv. I11 – Online request for obtaining B integrated environmental permit

Each of the indicators takes one of the following 3 values:

- 1 – on the observed website, the e-service that is being researched through the concrete indicator **exists**
- 0 – on the observed website, the e-service that is being researched through the concrete indicator does not **exist**
- 0.5 – on the observed website, the e-service that is being researched through the concrete indicator **is incomplete / irregular**

Of the indicators for each researched category of functionality, 3 indexes have been created as follows:

- I_{TR} – Index of Transparency,
- I_{CO} – Index of Communication,
- I_{AP} – Index of Approvals/Permits.

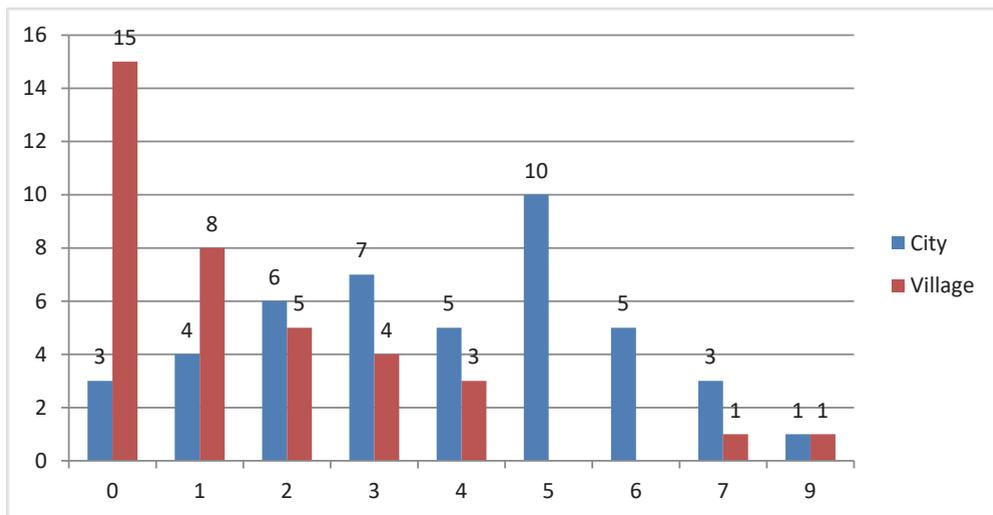
The research was conducted on the entire population of the municipalities in the Republic of North Macedonia. All (N=81) local self-governments in Republic of North Macedonia were included, that is, their websites, of which 44 are based in a city (including here the City of Skopje as a special unit of local self-government and the 10 municipalities in the City of Skopje), while 37 are local self-governments based in a village.¹

¹ According to the Law on Territorial Organization of the Local Self-Government in the Republic of Macedonia, Official Gazette of the Republic of Macedonia No. 55/2004, 12/2005, 98/2008 and 106/2008.

3. FINDINGS

Not a single municipality offers all 11 e-services, i.e., it does not offer them by caring for their completeness and constant updating. As shown in Figure 1, the most services are 9 offered by one municipality based in a village (Ilinden) and one municipality based in a city (Resen), while 7 e-services are offered on the websites of one municipality based in a village (Krivogastani) and 3 based in a city (Gazi Baba, Delcevo and Radovis).

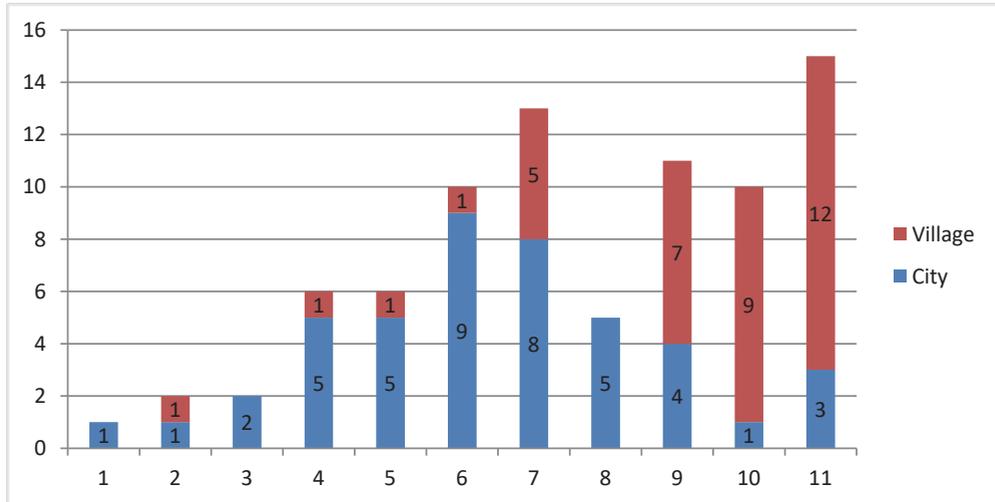
Figure 1 – Distribution of number of e-services (of the 11 analyzed) that are offered by municipalities



A little over 50 percent of the analyzed e-services (six of the analyzed 11) are offered on websites of 5 municipalities based in cities (City of Skopje, Negotino, Ohrid, Probistip and Strumica).

Figure 2 shows the number of municipalities that do not offer an appropriate number of e-services of the analyzed 11 included with this research. Worrying is the fact that as much as 15 municipalities (3 based in a city: Saraj, Kavadarci and Struga; and 12 based in a village: Brvenica, Vasilevo, Dolneni, Zelenikovo, Konce, Lipkovo, Lozovo, Mogila, Plasnica, Tearce, Centar Zupa and Cucer Sandevo) do not offer a single one of the analyzed 11 e-services on their websites, more specifically, they do not offer them in a manner that is committed to providing them regularly and completely to the users. Additionally, 10 municipalities (1 based in a city: Shuto Orizari; and 9 based in a village: Bogovinje, Gradsko, Debarca, Karbinici, Petrovec, Rosoman, Sopiste

Figure 2 – Distribution of the number of e-services (of the 11 analyzed) that are NOT offered in municipalities completely and updated



and Staro Nagoricane) do not offer 10 e-services, while 11 municipalities (4 based in a city: Butel, Gjorce Petrov, Vinica and Makednoski Brod; and 7 based in a village: Zhelino, Zrnovci, Novaci, Novo Selo, Studenicani, Caska and Cesinovo-Oblesevo) do not offer 9 of the analyzed 11 e-services.

Table 1 shows the number of municipalities that offer an appropriate number of e-services that they deliver to their users incompletely or irregularly.

Table 1 – Distribution of the number of e-services offered by the municipalities that are not updated

Number of incompletely updated e-services	Based in:		
	City	Village	Total
0	20	27	47
1	16	9	25
2	6		6
3	2	1	3
Total	44	37	81

Hence, it can be seen that in 3 municipalities (2 based in a city: Karpos and Bitola; and 1 based in a village: Jegunovce) as many as 3 of the 11 analyzed e-services are delivered in such a way that are not complete or always updated, which can cause serious problems for those using these services. Additionally, 6 municipalities based in a city have 2 that are not updated or are incomplete

e-services (Gazi Baba, Centar, Valandovo, Veles, Debar and Prilep) and 25 municipalities (almost a third of all the municipalities), of which 16 based in a city and 9 based in a village, have one e-service that is not updated or is incomplete.

From the analysis of the respective indicators, it can be noted that the most prevalent e-service in the municipalities in the Republic of Macedonia is the *Application for issuance and monitoring of construction permits* (indicator I8), which is offered by 42% of all municipalities in the Republic of Macedonia. This is followed by *Publishing the budget of the municipality for the current year* (indicator I3) and *Publishing the minutes and adopted decisions of the municipal council* (indicator I4), which are offered by 35.8% of all the municipalities in the country.

The most common e-services in municipalities based in a city are: *Application for issuance and monitoring of construction permits* (indicator I8), which is offered by 56.8% of all municipalities in the Republic of Macedonia based in a city, followed by *Publishing the minutes and adopted decisions of the municipal council* (indicator I4) with 54.5% and *Publishing the budget of the municipality for the current year* (indicator I3) and the *E-form for reporting problems* (indicator I5) with 45.5%.

In municipalities based in a village, the most common e-services that 27% of them offer is *Publishing job announcements* (indicator I10), followed by the e-services *Publishing the budget of the municipality for the current year* (indicator I3) and the *Application for issuance and monitoring of construction permits* (indicator I8), which is offered by 24.3% of the municipalities based in a village.

From the analysis of the values of the standard deviations for all three indexes, a greater deviation from the mean value can be pointed out: in municipalities based in a city in the I_{TR} index (Std. dev. = 1.13), and among municipalities based in a village in the I_{CO} index (Std. dev. = 0.89). This may be due to several reasons: different priorities of the local authorities in determining which e-services are important for their users; greater deviations in the necessary resources for providing these e-services, including here finances, skills, knowledge, technical and organizational infrastructure, and others; lacking clearly identified guidelines for determining the priorities in introducing e-services at the local level that are based on clear, unambiguous and proven criteria; lack of clear and written procedures on ownership and managing the services that the municipalities deliver to their users; the different affinities and needs of the users from municipalities based in a city from those based in a village and etc.

This situation can be improved significantly with a greater exchange of experiences between the municipalities from the process of implementing the specific e-services, as well as the identifying and disseminating of good practices from the world and from the municipalities in the Republic of Macedonia from the introduction of e-services at the local level.

Conclusions

In the municipalities in the Republic of North Macedonia, there is still much room for progress in the digitalization of e-services. It is worrying that not a single municipality offers all of the analyzed 11 services in a consistent manner, taking care for them to be on time and updated. The low awareness of the local administration on how important it is to offer updated digitalized services to their citizens and businesses, as well as the small pressure that the local public is putting on the local self-government, are probably one of the most important reasons for such a situation.

The research in the future should include also an analysis of the digital skills of the local administration, but also of the citizens and local businesses. Furthermore, in the future it would be interesting, in the context of digitalization of the local government services, to analyze the websites of the municipalities from the aspect of how much and in which way they offer access to so-called open data, and what are the local policies for establishing of data sets that have an open character.

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(Original scientific paper)

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MARKET RESEARCH OF AIR CONDITIONERS AND HEAT PUMPS IN THE MACEDONIAN ECONOMY¹²

Abstract

The growing awareness of environmental protection and increased energy efficiency through the use of renewable energy sources, imposes the application of cooling, heating and ventilation systems based on modern technological and environmental solutions for individual homes and businesses.

As the most prominent devices in the pool of new systems are heat pumps and inverters - air conditioners and their application is imposed in our country as well. Henceforth, the country will meet European standards and criteria for environmental and energy efficiency and will reap the following benefits: reducing energy demand, preserving the environment and creating a resilient renewable energy system. Hence, the aim of the paper is to assess the current market situation of these devices in the Macedonian economy and its potential, as well as to indicate the opportunities that will lead to increased sales in the market in the future.

The survey is used as a method for collecting primary data for the research. Moreover the relevant secondary data sources are also utilized. The methods of analysis, synthesis, induction, deduction, as well as the logical and statistical method are used in data processing and drawing plausible conclusions.

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Research has clearly demonstrated that the country has made minor progress in developing this market over the years, nevertheless there is still a large number of untapped opportunities for its further advancement and full utilization.

Keywords: energy efficient solutions, environmental solutions, inverter-air conditioners, heat pumps, Macedonian market

JEL Classification: L1, L68, R21

Introduction

In recent years, EU countries have increasingly encouraged the use of renewable energy sources, greater energy efficiency and fewer CO₂ emissions, thus protecting energy supply and availability, as well as mitigating climate change. Hence, EU countries, among other things, spring increasing attention to the implementation of solutions and equipment for heating, ventilation and air conditioning with high energy efficiency, based with renewable energy sources (air, water, earth, sun) and whose environmental aspect is quite high, i.e. the impact of these devices on the environment with harmful gases is very low. Given that inverters - air conditioners and heat pumps are products that base their operations on the above principles, they are increasingly used in the process of heating and cooling in these countries. The technology of these products, especially the heat pumps, is influenced by all the laws related to energy efficiency, the use of renewable sources and the reduction of greenhouse gas emissions. The legal acts include the following several directives: Directive on Renewable Energy Sources, Directive on Energy Performance of Buildings, Directive on Renewable Energy, Framework Directive Ecolabel etc. Such regulating way of the issue in the future will encourage the growth of the market of these devices, with special emphasis on heat pumps.

Having in mind the proviso mention above and the status of our country to begin a long-awaited process of negotiations for full EU membership, there is an inevitable need to see the progress of the country in this regard. So, it is important to perceive and analyse the situation in its market for air conditioners and heat pumps. Some of the crucial issues related to analysed problems are whether there is a shift in the awareness of the population regarding the importance of energy efficiency and the environmental aspect of heating devices, to what extent this market has developed, what is its potential and whether there is room for its expansion in the future. The purpose of this paper is to answer

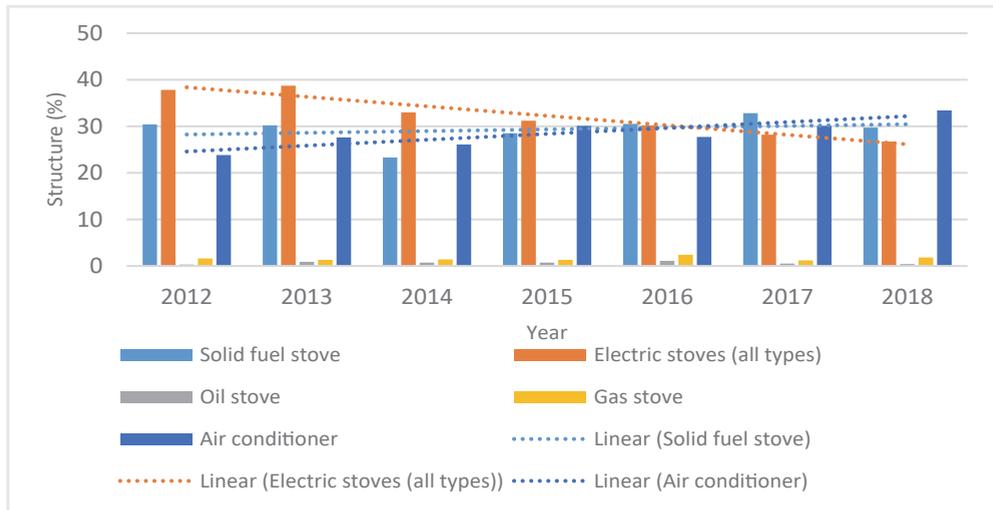
exactly these questions and certainly to point out some of the opportunities that should be used to intensify the sale of these devices in the Macedonian economy.

1. ANALYSIS OF THE DEMAND ON THE MARKET OF AIR CONDITIONERS AND HEAT PUMPS IN THE MACEDONIAN ECONOMY

1.1. Analysis of energy consumption and heating devices based on statistics

Analysed data on the structure and trend of the household possession of durable consumer goods for heating (Graph 1) show that the dominant share in 2018 belong to the households that use air conditioners, taking the leading position that solid fuel stoves had in the previous two years. Solid fuel stoves have a steady growth trend since 2014, excluding 2018.

Graph 1. Household possession of durable goods for heating

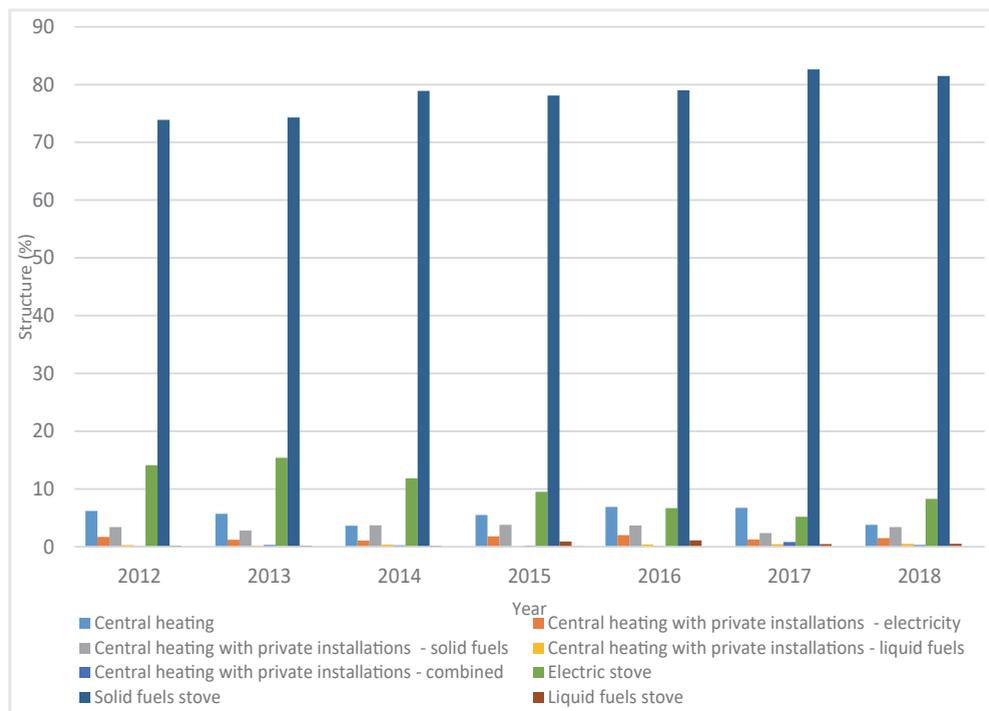


Source: Prepared by authors based on SSO (State Statistical Office) data, MAKStat Database, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__ZivotenStandard__AnketaZaPotrosuvackaDomakinstva/175_ZivStand_mk_TRAJNI_ml.px/?rxid=aa89d65e-11e4-4abf-aa2a-6627545b2f64

In contrast, the number of households using electric stoves was dominant in 2012, and then declined in the following years. The number of households that use air conditioners over the years has slightly increased continuously and their number reaches its maximum value in 2018.

The previous statement is confirmed by households heating data (Graph 2), which shows the dominance and growth of heating through solid fuel stoves, reduction of heating through electric stoves and in third place is public central heating.

Graph 2. Households according to the way of heating the dwelling



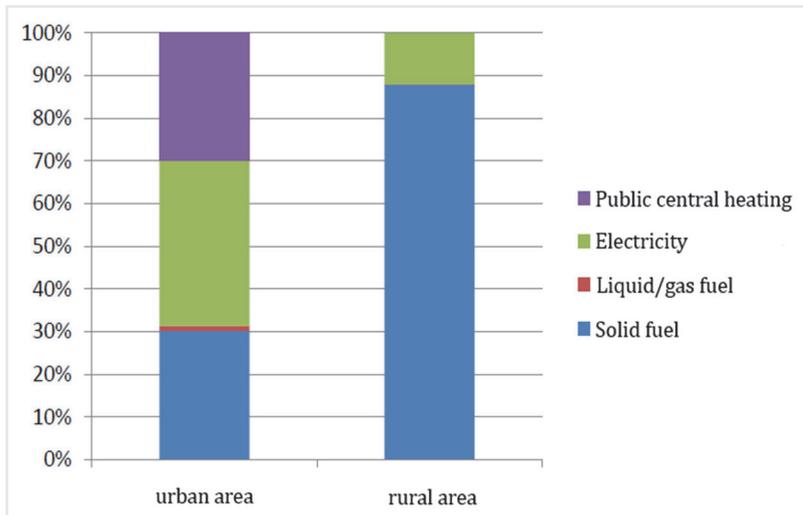
Source: Prepared by authors based on SSO data, Statistical Yearbook of the Republic of Macedonia, 2013, Skopje, June, 2013, <http://www.stat.gov.mk/Publikacii/PDFGodisnik2013/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 293; Statistical Yearbook of the Republic of Macedonia, 2014, Skopje, June, 2014, <http://www.stat.gov.mk/Publikacii/PDFSG2014/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 313; Statistical Yearbook of the Republic of Macedonia, 2015, Skopje, June, 2015, <http://www.stat.gov.mk/Publikacii/PDFSG2015/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 331; Statistical Yearbook of the Republic of Macedonia, 2016, Skopje, June, 2016, <http://www.stat.gov.mk/Publikacii/PDFSG2016/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 321; Statistical Yearbook of the Republic of Macedonia, 2017, Skopje, June, 2017, <http://www.stat.gov.mk/Publikacii/SG2017/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 319; Statistical Yearbook of the Republic of Macedonia, 2018, Skopje, October, 2018, <http://www.stat.gov.mk/Publikacii/SG2018/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 355; Statistical Yearbook of the Republic of North Macedonia, 2019, Skopje, October, 2019, <http://www.stat.gov.mk/Publikacii/SG2019/08-PrihodiPotrosCeni-IncomeExpPrices.pdf>, p. 331

Data from the previous two graphs demonstrate that reducing the number of households using electric stoves creates potential conditions for increasing the use of air conditioners in households. Yet, the only threat is solid fuel stoves, which in the future, with rising awareness and encompassing environmental measures, are expected to reduce their use by households.

A more detailed analysis of the energy used for heating according to whether the buildings are placed in urban or rural areas, shows a significant difference in the choice made by households (Chart 3).

According to Graph 3, solid fuel is predominant in rural areas. This can be seen as an opportunity to expand the sales of air conditioners and heat pumps in rural areas, applying an appropriate strategy that will have to keep an eye the balance between prices, payment terms and purchasing power of population.

Graph 3. Heating energy according to place of residence



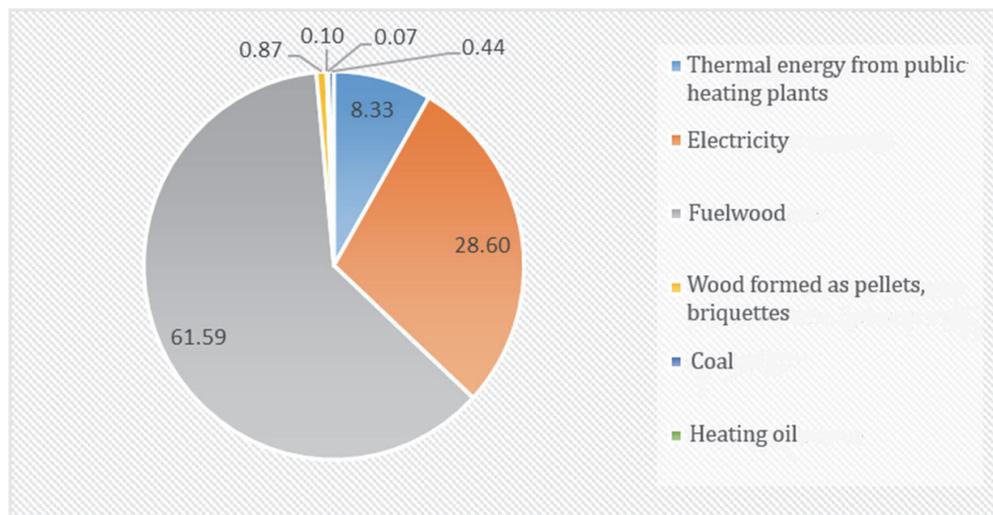
Source: UNDP, Transformative Governance and Finance Facility, UNDP, 2017, p. 26.

The aforementioned findings are confirmed by the latest official data from the SSO, from 2014, on the share of households according to energy consumed as the basic type of heating, which clearly shows the high dominance of firewood by 61.59%, followed by electricity with 28.6% and thermal energy from the public boiler room with 8.33% (Chart 4).³

³ These data are published in the first edition of the publication on energy consumption in households under the title “Energy consumption in households, 2014”. As regular edition of the State Statistical Office is scheduled to be published every five years. However, the second edition has not been released yet, so these last available data are being used.

From these latest official data, small changes have taken place in the trend of using these fuels. However, harmonized, intensified measures are still needed for changes in the structure of used energy, in order to use environmentally friendly fuels and achieve savings for the population and the economy as a whole.

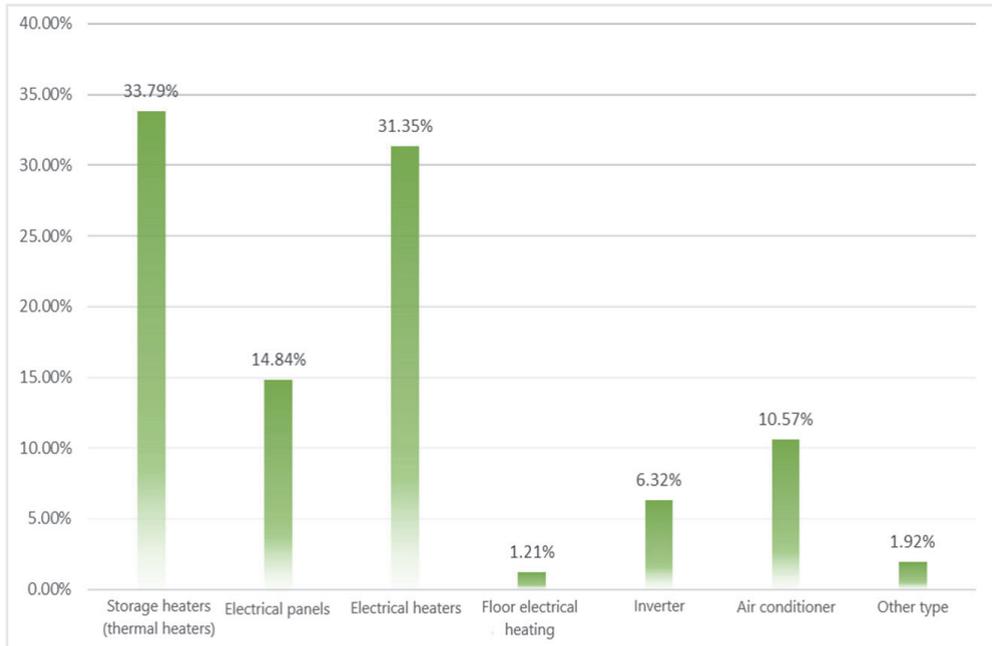
Graph 4. Share in the total number of households by energy spent as basic type of heating in 2014



Source: Prepared by authors based on data from State Statistical Office, Energy consumption in households, 2014, Statistical review: Industry and Energy, 6.4.15.03/836, Skopje, December 2015, p. 38 <http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=74>

The data on the type of electrical appliances used by households according to the SSO survey in 2014 (Graph 5) indicate that the largest share is occupied by electric stoves, then electric heaters, electrical panels and finally air conditioners and inverters. From this graph it can be seen that the inverters are below the level of use of air conditioners.

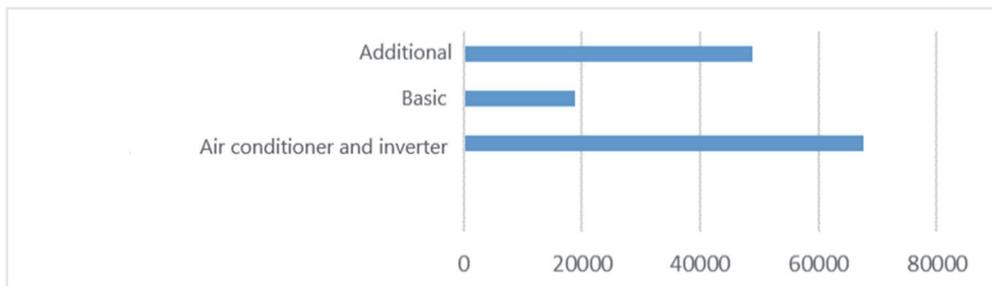
Graph 5. Share of electrical heating appliances in 2014



Source: Prepared by authors based on data from State Statistical Office, Energy consumption in households, 2014, Statistical review: Industry and Energy, 6.4.15.03/836, Skopje, December 2015, p. 39 <http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=74>

This fact has changed in recent years, as evidenced by the results of the survey (which follow). These data show that respondents would choose inverters rather than on/off air conditioners.

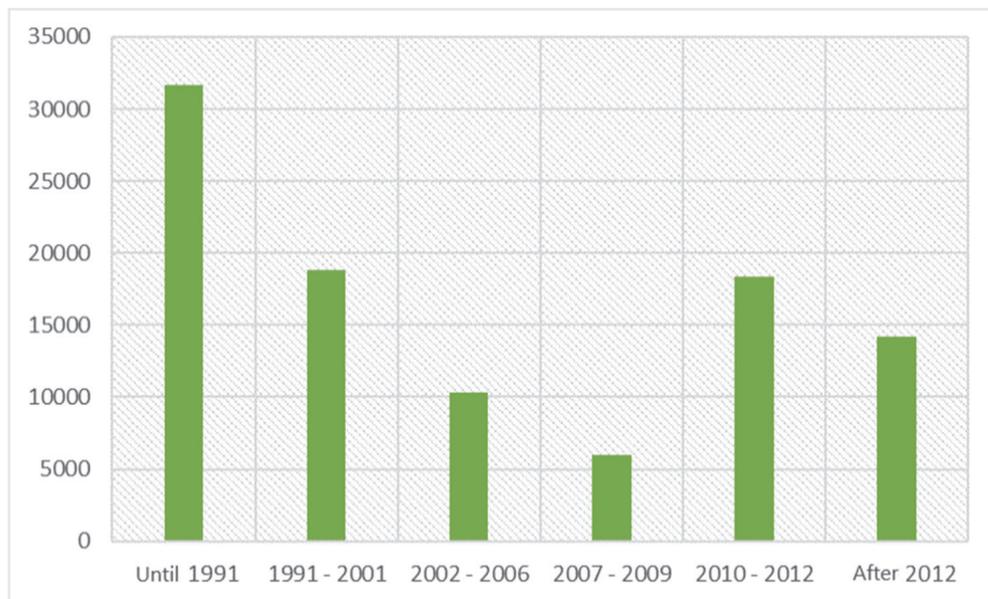
Graph 6. Number of households with air conditioners and inverters in 2014, as a basic and additional way of heating



Source: Prepared by authors based on data from State Statistical Office, Energy consumption in households, 2014, Statistical review: Industry and Energy, 6.4.15.03/836, Skopje, December 2015, p. 39 <http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=74>

Previous analyzes are complemented by the following data, which show that the number of households that use air conditioners and inverters as additional, and not as a basic heating device, is higher (Graph 6).

Graph 7. Number of households according to the insulation of dwellings in different periods



Source: Prepared by authors based on data from State Statistical Office, Energy consumption in households, 2014, Statistical review: Industry and Energy, 6.4.15.03/836, Skopje, December 2015, p. 35 <http://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=74>

If we take into account the insulation of the dwellings that was made in certain periods (Graph 7), it can be noticed that until 2009 there is a trend of reduced activities in this area, and after 2009 there is a significant increase. It allows greater use of the products of the industry and more positive effects of the application.

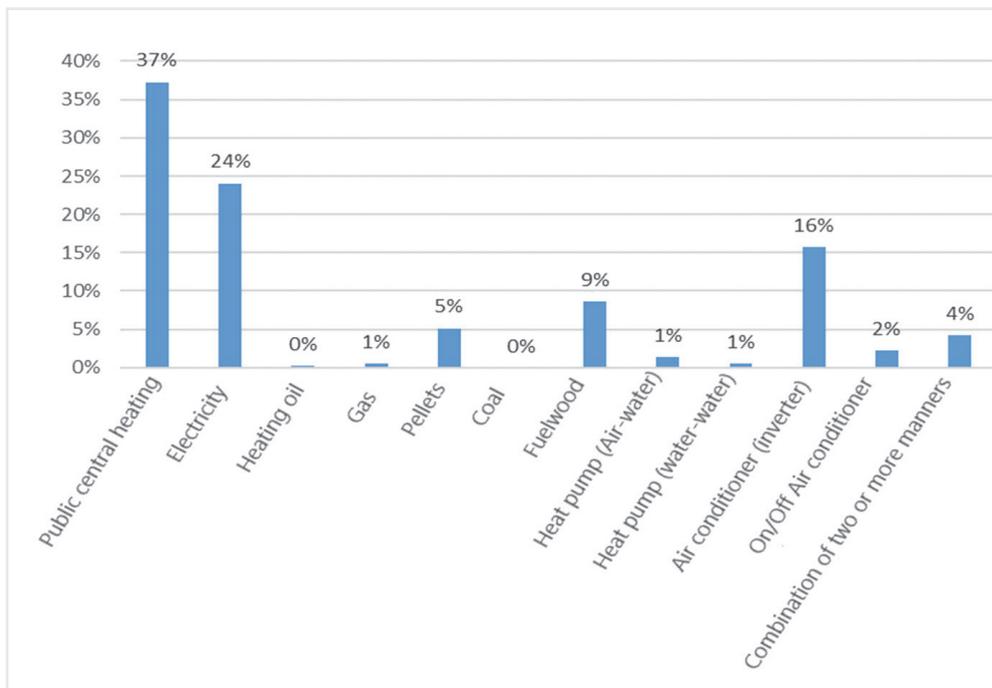
In general, from the above figures, it can be concluded that households are still predominantly heated by wood (especially in rural parts of the country), rather than using new modern and environmentally friendly methods of heating.

1.2. Empirical research on market demand of air conditioners and heat pumps

In order to upgrade the previous research, a survey was conducted to assess the demand for these devices in the Macedonian market. Due to the nature of the product, the selection of respondents in the sample was done randomly. The questionnaires were sent to about 4,500 people, and the answer was obtained from 749 people. The survey was conducted in the period from 15.02.2019 to 27.03.2019.

Regarding the method of heating (Graph 8), the results of the research showed that the population covered by the questionnaire is heated mainly by central heating, electric stoves, and then inverters. On/Off air conditioners lag significantly behind inverters, which means that the advantages of energy efficient devices on the heating market are increasingly being recognized.

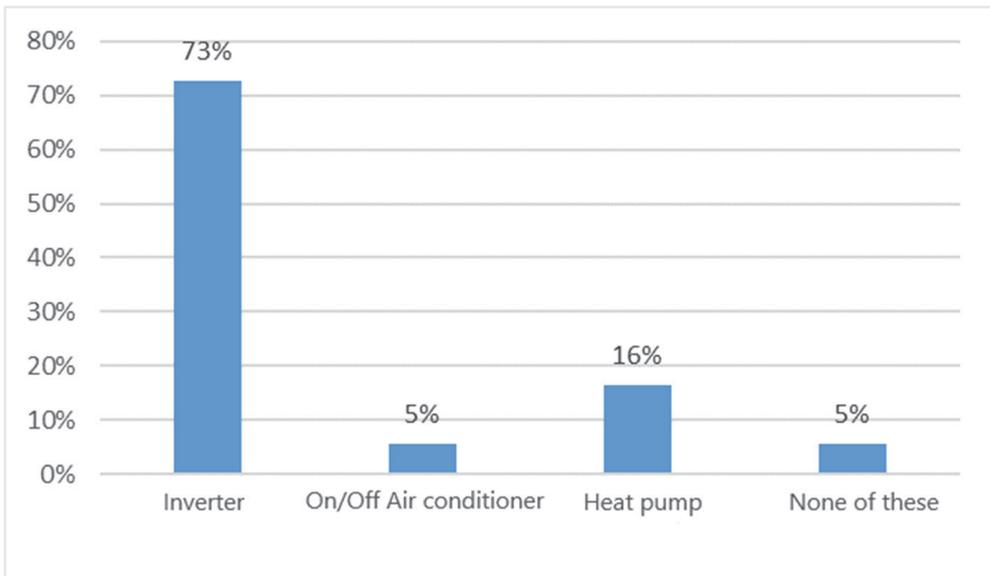
Graph 8. Manner of heating a home/office



Source: Own research based on a conducted survey questionnaire (2019).

Additionally, the increased awareness of the population about the energy efficiency of heating devices is confirmed by the answers to the question about the investments of the respondents in the heating and cooling devices in the future (Graph 9).

Graph 9. Heating and cooling device that the buyer would buy in the future

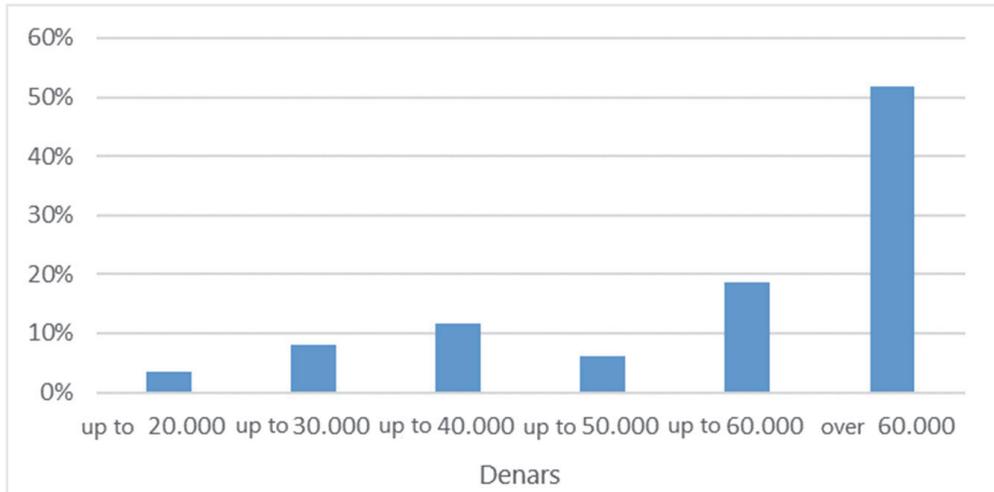


Source: Own research based on a conducted survey questionnaire (2019).

Namely, 73% of the respondents would buy inverter, and 16% would invest in a heat pump. The low share of on/off air conditioners in future household investments clearly shows that there is a tendency in the market to reduce their demand.

According to the monthly household income (Graph 10), the research shows that the most numerous is the category of respondents with an total family income of up to 60,000 denars and over 60,000 denars.

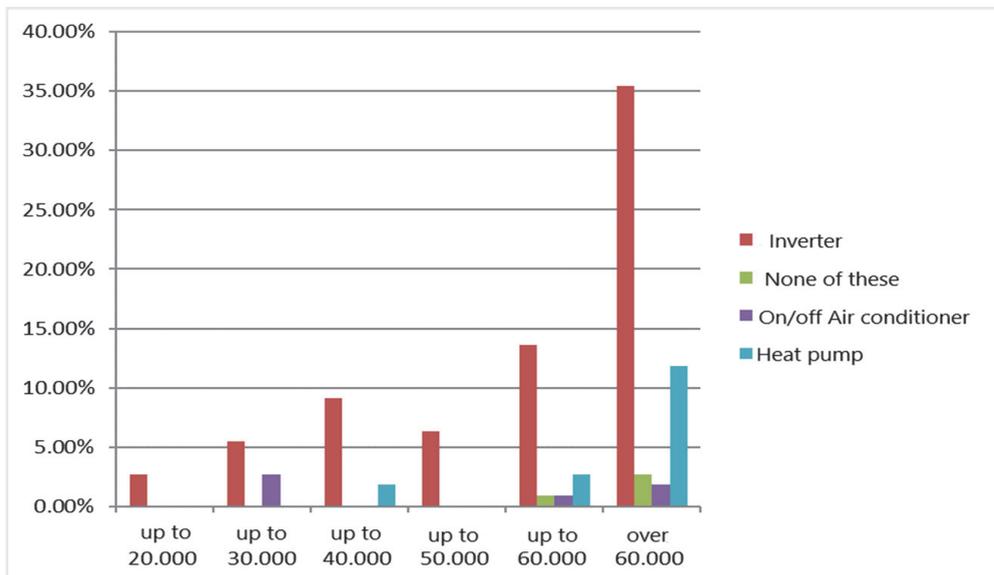
Graph 10. Total monthly household income



Source: Own research based on a conducted survey questionnaire (2019).

In addition, cross data was used in order to verify the previous statement. The result clearly confirms the conclusion that growing income links to growing interest in inverters and heat pumps, with a dominant emphasis on the first (Graph 11).

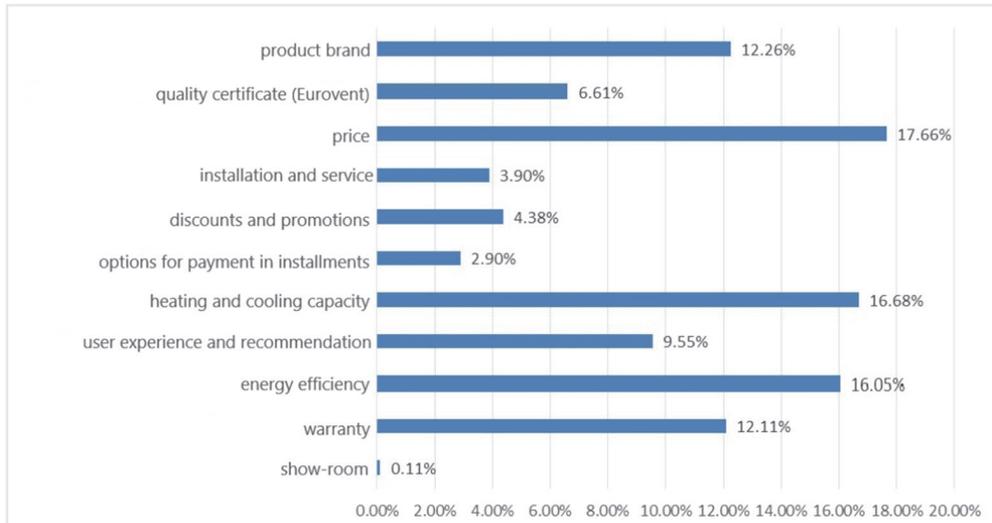
Graph 11. A device that would be bought by revenue category



Source: Own research based on a conducted survey questionnaire (2019).

In contrast, on/off air conditioners show a downward trend in the need to purchase these devices as the respondents' income increases. Such results clearly demonstrate the raising awareness among the population regarding the use of energy efficient devices, and increased sale of this type of devices.

Graph 12. Factors influencing the decision to purchase heating and cooling devices

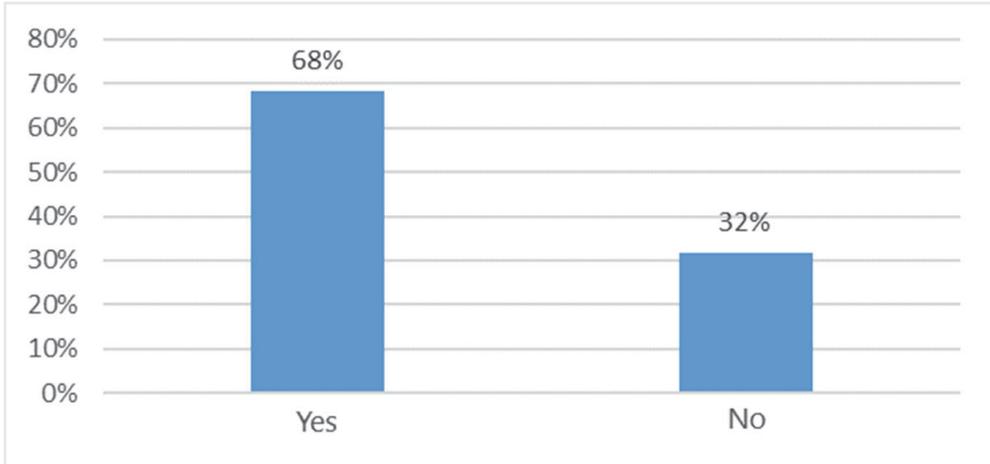


Source: Own research based on a conducted survey questionnaire (2019).

The analysis of the results also determines the key factors that influence the decision to purchase a heating and cooling device. Dominant factors are (Graph 12):

- Price
- Heating and cooling capacity
- Energy efficiency.

Graph 13. Impact of subsidizing ecological products on the purchase decision



Source: Own research based on a conducted survey questionnaire (2019).

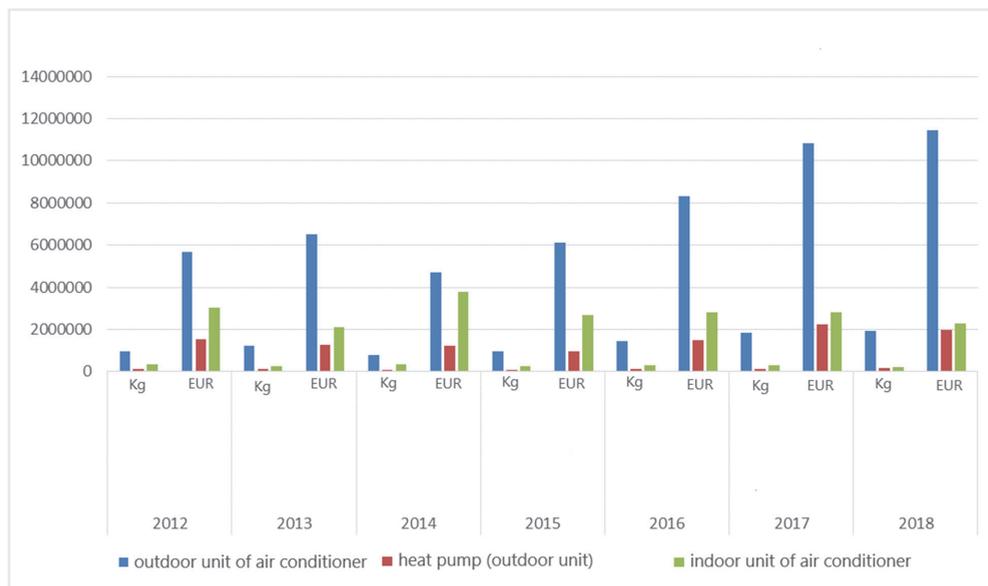
Subsidizing environmental products has a major impact on consumers' decision to purchase heating and cooling devices (Graph 13). According to 68% of respondents, subsidies would affect their decision to buy environmentally friendly heating and cooling devices.

All previous findings should provide a basis for assessing the potential opportunities for increasing sales in the market of air conditioners and heat pumps, as well as for determining appropriate guidelines and measures to achieve this goal.

2. ANALYSIS OF THE SUPPLY ON THE AIR CONDITIONERS AND HEAT PUMPS MARKET IN THE MACEDONIAN ECONOMY

If we analyze the market of air conditioners and heat pumps on the supply side, in the last seven years (Graph 14), it shows a tendency of growth in the outdoor units of air conditioners and cyclical flow of movement in indoor units of air conditioners. Regarding the supply of heat pumps, the market has a downward trend until 2015, when rapid growth appears until the end of the analyzed period. Such movements validate that people are increasingly becoming aware of the advantages of these devices in the process of heating and cooling their premises.

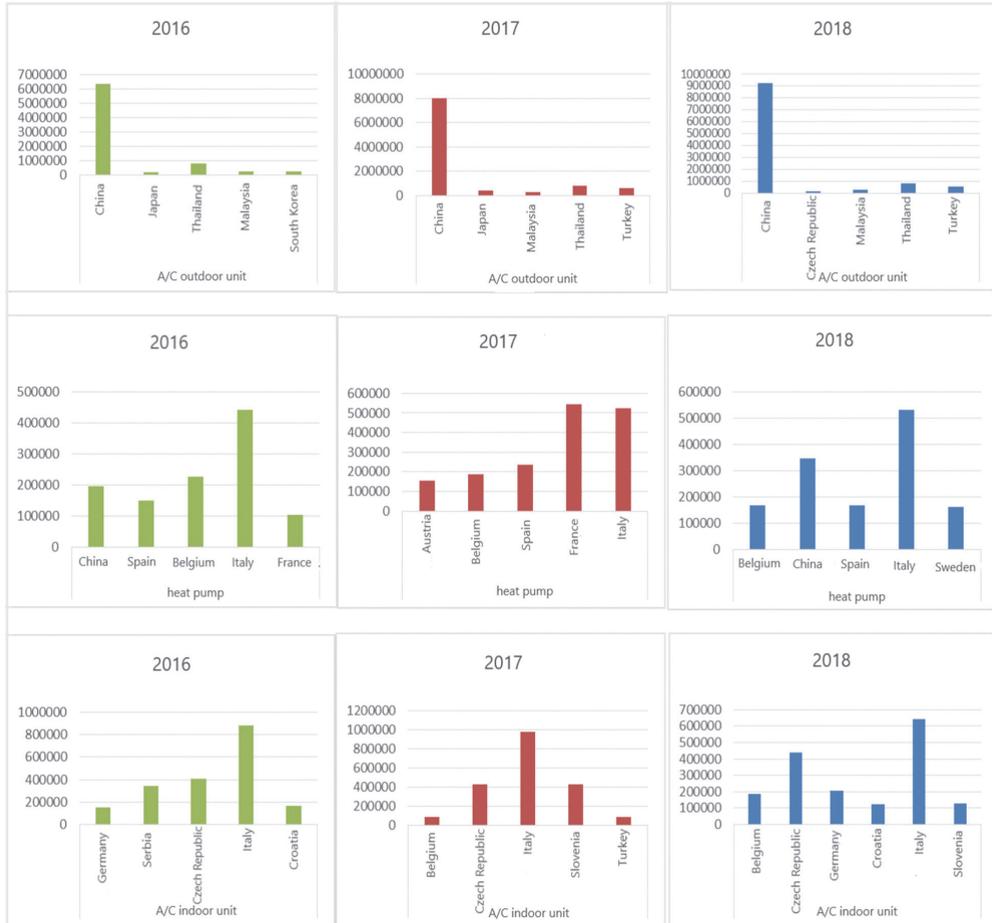
Graph 14. Supply of the air conditioners and heat pumps market (2012-2018)



Source: Prepared by authors based on SSO data, MAKStat Database, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat__NadvresnaTrgovija__DetalniPod__DetKumHS__ZemjiHS/115_CnZemji_mk_2020_uvoz.px/?rxid=f0c2e600-2bbc-4938-be80-91e99c020d50

According to the SSO data on the import of air conditioners and heat pumps, Chart 15 shows the dominant 5 countries of origin of these products in the period 2016-2018.

Graph 15. Dominant five countries of imports by years and types of products (2016-2018)



Source: Prepared by authors based on SSO data, MAKStat Database, http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat_NadvoresnaTrgovija_DetalniPod_DetKumHS_ZemjiHS/115_CnZemji_mk_2020_uvoz.px/?rxid=f0c2e600-2bbc-4938-be80-91e99c020d50

The analysis of the import of air conditioners (outdoor units) by country of origin shows China's dominant participation in the period 2016-2018, which has been growing steadily over the years. The import of heat pumps in the analyzed period is dominated by Italy, and the subsequent positions belong to European countries: Belgium, France, Spain, Austria and Sweden, and in 2016 and 2018 as a country of origin appears China, which in 2018 increases its part. In the case of air conditioners (indoor units), Italy again has a dominant share, followed by the Czech Republic, Slovenia and other European countries.

3. OPPORTUNITIES TO INCREASE MARKET SALES OF AIR CONDITIONERS AND HEAT PUMPS

Primary and secondary data-analysis and research in the paper is especially important to highlight the potential opportunities that will lead to:

- further increased consumer awareness of the use of this type of products and
- increase of their sales on the Macedonian market.

The possibilities can be seen from the aspect of changes that need to be made in the general environment and special ones that refer to the operation of the companies in this segment.

A) Within the general conditions, we emphasize the following potential opportunities:

- Reduction of the import tariff rate of these products (at the moment, 15%).
- Reduction of the VAT rate (from 18% to 5%).
- Shortening the procedures and time required for the issuance of permits for import of these products by the Ministry of Environment and Physical Planning.
- Raising the level of education and information of the citizens about the energy efficiency and ecological usefulness of using this type of products.
- Increasing subsidies for the purchase of inverter air conditioners (now it is 50% of the value of the purchased device, but not more than 15.000 denars), as well as the introduction of subsidies for the purchase of heat pumps.
- Abolition / reduction of subsidies for pellet stoves in order to prevent environmental pollution (now it is 70% of the value of the purchased stoves, but not more than 30,000 denars).
- Digitalization has a key impact on the challenges of decentralization, flexibility and efficient use of energy and mobility. In the long term, the link between the energy, heat and mobility sectors will be key to the IT optimization of energy and mobility systems. The introduction of “smart” meters will improve the demand for heat pumps and inverters, especially heat pumps which represent the “heating of the future”.

B) As special recommendations that would apply to companies that deal with the sale of this type of products, we suggest:

- Determining an appropriate target consumer group that will lead to increased sales. In addition to homeowners, special attention should be paid to business entities. This is primarily due to the fact that the liberalization of the electricity market leads to a reduction in the price of industrial electricity.⁴ This enables greater penetration of companies in this segment of the market, i.e. to include business entities as a target group.
- It would be beneficial for companies to enter into partnerships with construction companies, contractors or architects who will offer and indirectly sell of such products for a certain percentage. This approach will expand sales, especially in areas where central heating is not used. The justification for this proposal is visible in the movement of building permits, which shows growing trend in recent years.⁵
- Companies need to digitize businesses and strengthen their digital presence in the marketplace through digital channels for promotion and sales, which open up many new opportunities for the promotion and sale of these products.
- Sales should also be extended to rural areas, with an appropriate strategy, in order to replace the dominance of solid fuel stoves as dominant device in these areas.

Conclusion

In general, it can be concluded that households in the country are still predominantly heated by wood, instead of using new modern and environmentally friendly ways for heating. Solid fuels are particularly prevalent in rural areas, but such areas can be seen as a potential opportunity to expand the sales of air conditioners and heat pumps, by applying an appropriate strategy that pays attention to the balance between prices, payment terms and purchasing power of the population. In addition, the data in the paper show that the number of households using electric stoves is decreasing, which also creates potential conditions for increasing the utilization of air conditioners

⁴ Energy Delivery Solutions, www.eds.mk

⁵ <http://www.stat.gov.mk/OblastOpsto.aspx?id=20>

and heat pumps in households. The only threat represent the solid fuel stoves, yet in the future with increasing awareness and taking measures to protect the environment, one should expect to reduce their use by households.

The survey shows marginally different results from the statistics. They point out that the surveyed population is heating up more with central heating, electric stoves and then inverters, and the percentage of households utilizing wood is lower. Such result is assumed due to the fact that the largest category of respondents has a higher monthly household income (income up to 60,000 denars and over 60,000 denars) and it is assumed that they are predominantly from the urban environment. However, there is a growing awareness of the energy efficiency and environmental impact of the analysed group of heating devices, which is a step forward compared to previous conditions. The fact that people in the country are becoming more aware of the benefits of these devices is also confirmed by the analysis of the supply of air conditioners and heat pumps in the market, which in the last seven years shows a growth trend. Such result is confirmed by the growing demand of these products. What is particularly important is that subsidizing eco-friendly products has a major impact on consumers' decision to buy heating and cooling devices, clearly demonstrating one of the several proposed future policy measures in this area in order to have a beneficial impact in energy efficiency and energy savings effects.

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(Original scientific paper)**

ELIZABETA DJAMBASKA*
ALEKSANDRA LOZANOSKA**

THEORETICAL APPROACH OF MACROECONOMIC POLICY MEASURES FOR SOLVING ECONOMIC CONSEQUENCES OF COVID-19

Abstract

COVID-19 is a virus that cause health problems to the population and spread very fast in the world as a pandemic. At the same time when the health and human lives are affected, economy is also impacted by an outbreak. The primary effect of the corona crisis, that defers it from some previous ones, is that the initial economic shocks occur simultaneously on supply and demand side. The shocks initially are caused by the state measures taken for the virus spreading i.e. the state decree for restrict or prohibit human movement, tourist travel, the work of business entities in some activities was completely reduced, in others significantly limited. Hence, one of the first sectors impacted by an outbreak is the public and private health system, then tourism, trade, transport, agriculture, constructions and industry. Indirectly and in very short time the functioning of the whole economy is threatened.

The main question is, are the government interventions in the economy necessary and which measures are appropriate to manage the economic consequences from the pandemic. This paper discusses about the theoretical approach of the macroeconomic measures that government can use on both supply and demand side in the economy, for solving the imbalance. Important part of the paper is the short review of some ongoing macroeconomic policy

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measures in the EU countries and in North Macedonia, as an active response to the pandemic effects.

Key words: pandemic, economic shocks, macroeconomic imbalances, state interventions, monetary and fiscal measurements,

JEL Classifications: I1, O11, E6, G01, E62

Introduction

The history of world is evidencing many disasters and outbreaks of epidemics with great number of deaths. Today we are witnessing the quick spread of the pandemic caused by the virus COVID-19. This pandemic is still ongoing and with no clear prediction of its ending. Beside its impact on the health of the world population, pandemic caused by virus COVID-19 have and would have enormous impact on the economies. The countries first must win the battle with the virus, to take all necessities for the safety and health of the citizens, to manage the health systems, to assure appropriate treatment of ill people and to save human lives. But they also must manage the economic existence. The scope of the recession that appear today in the world cannot be predicted. Therefore, in the previous months, all Governments provided macroeconomic measures and activities that will help the economy. According to their specific characteristics, every Government use similar, but particular measures.

In this paper we analyze and discuss the theoretical approach of the measures, whether they focus on the aggregate demand or on the production side in the economy, also which of the measures will have positive effect dealing with the shocks in the economy and will ensure economic growth.

1. THE EQUILIBRIUM IN THE ECONOMY AND ECONOMIC GROWTH

The main goals of macroeconomic policy are low level of unemployed people in the economy, low inflation, high level of productivity, increased gross domestic product, stable exchange rate and balance of payments. Each of the defined goals of the macroeconomic policy has huge importance for the functioning of the economy and reaching economic growth. According to the historical data, the focus of achieving these goals was changed. Therefore, in the years of Keynesianism domination, the accent was on the unemployment

and how to achieve equilibrium on the labor market. Quite different aspect was proclaimed by monetarists and they prefer the low inflation and measures that assure it. The conflict between macroeconomic goals still exists. Nowadays it is very important to consider and take all activities to predict which aspects or combination of the measures Government will follow toward quick response to the economics downfall.

Despite the differences in the economic theories, it is a consensus to use the same macroeconomic model. It is a general framework for analysis called aggregate demand-aggregate supply or AD-AS model, or IS-LM model, often found in the economic literature. However, different names should not lead to the misconception that they are different models, but on the contrary, the model is the same.

The IS-LM model was developed in 1937 by Nobel laureate Sir John Hicks, who actually illustrated Keynes's ideas from his famous book "General Theory of Employment, Interest, and Money". The model primarily demonstrates Keynes's approaches and shows the condition of equilibrium where the investment must be equal to savings $I = S$, and the demand for money L must be equal to the supply of money M , $L = M$. The original model was developed on the assumptions of Keynesian theory, where wages and prices are not adjusted quickly to "clean up markets". The classical teaching contrary to this believes that wages and prices are moving fast and "cleaning up markets". Therefore, the model can be used either from a classical or a Keynesian point of view. The model represents a symbiosis of three markets in the economy, the labor market, the market of goods and services and capital market. General macroeconomic equilibrium is achieved only when there is a general equilibrium in the three markets at the same time.² The equilibrium of the markets is on short notice, because the economic activity is dynamic and different forces shift the general balance. In order to re-establish it, we need to know the factors that cause such distortions, so that measures can be applied and macroeconomic balance will be re-establish. Any disruption of one of the three markets automatically means a disruption of the macroeconomic balance, although it does not mean a disruption of the general balance of the individual markets. In real this is more delicate, according to the openness of the economies and every day activities on the global market.

Keynesian theory declares that in recession the Government interventions with measures and activities that stimulate aggregate demand are the right

² The assumption of the model is that address only the closed economy.

solution for revival the economy. Therefore, the Government takes active role in economy using fiscal and monetary politics.

They start with the base definition that GDP, in short term, is determined by the desire for consumption of households, enterprises and the state. The changes in GDP will appear only when any of this consumption will change. Hence, the change in investment (I), in public spending (G) and taxes (T) will boost the aggregate demand in the economy.

Changes in public spending (G) and taxes (T) are result of the active fiscal policy. The both types of interventions increase the aggregate demand. How much will be the increase depends on the marginal propensity to consume - MPC. The effect will be calculated as:

1. *Increase of the public consumption* - ΔG , cause greater increase on GDP - ΔY . The effect can be calculated with the multiplier of the public consumption.

$$\Delta Y/\Delta G = 1 + MPC + MPC^2 + MPC^3 + \dots \text{ or } \Delta Y/\Delta G = 1/(1 - MPC)^3$$

2. *Decreasing of taxes* - ΔT , immediately causes an increase in disposable income, which increases consumption by $MPC \times \Delta T$. The calculation formula is:

$$\Delta Y/\Delta T = -MPC/(1 - MPC)$$

For example: The increase of public consumption of 1 denar, if the MPC is 0,6 than the multiplier of the public consumption will be 2,5 denars. The initial increase of public consumption of 1 denar multiplier the increase of GDP for 2,5 denar.

$$\Delta Y/\Delta G = 1 + 0.6 + 0.6^2 + 0.6^3 + \dots = 1/(1 - 0.6) = 2.5$$

Also, with this level of marginal propensity to consume in the economy, every decrease of the taxes of 1 denar, according to the formula will result with increase of 1,5 denars in GDP.

$$\Delta Y/\Delta T = -0.6/(1 - 0.6) = -1.5$$

3. *Increasing of the investment* - I in the economy. It is possible with the monetary instruments. Liquidity Preference Theory explain the role of

³ Menkiw N. Gregori, Macroeconomics, Fifth edition, p. 263-264

interest rate by the supply and demand for money. According to Keynes, the demand for money is split up into three types – transactionary, precautionary and speculative. People prefer to be liquid for day-to day expenses, so the amount of liquidity desired depends on the level of income, the higher the income, the higher amount of money is required for increased spending. This is called transactionary demand. The second type of demand is called precautionary demand. That is the demand for liquidity to cover unforeseen expenditures such as an accident or health emergency. The demand of this type increases as the income level increases. Speculative demand is the demand to take advantage of future changes in the interest rate or bond prices. According to this theory, the higher the rate of interest, the lower the speculative demand for money. Hence, the lower the rate of interest, the higher the speculative demand for money. According to the Liquidity Preference Theory, interest rate is actually an opportunity cost of owning money that does not bring in interest on the basis of interest instead of bank or bond deposits. As interest rates rise, and so does the cost of keeping money as the most liquid form, people want to keep less money. When the Government intervenes with monetary instruments, increase the money supply, so this result with decrease of the interest rate. It is expected to encourage the investment in the private sector, as well as the increased disposable income in households will increase the aggregate demand. The main conclusion is that the demand for money is negatively related to the interest rate, and positively to the level of income in the economy.

The other dominant theory that has opposite opinion from the Keynesian theory is classical economic theory. Recently, the more exposed is real-business cycle theory - RBC theory as a new classical theory. Edward Prescott and Finn Kydland developed this theory for a real business cycle at the generally accepted claim of the classical theory, that business cycles are the result of shocks that occur on the aggregate supply side in the economy. But they further make a distinction between real shocks and nominal shocks that occur on the supply side. Real shocks are changes or shocks that occur on the “real side” of the economy, such as shocks that affect the function of production, the number of workforce, the actual amount of public procurement, consumer spending and savings decisions. Contrary, nominal shocks are shocks on the supply or demand side of money. According to RBC theory, the main causes of the business cycle are real shocks, with that priority given to shocks to the manufacturing function that is commonly referred to as productivity shocks.

Government interventions caused shocks on the aggregate supply side in the economy.

1. Increased government expenditures have no impact on the production function and the marginal product of labour. Therefore, there are no changes on the labour demand, but labour supply increases. The occurred income effect and the expectation of increasing taxes in future for financing the present increase of the government spending create effectively workforce that is poor. This contributes to the increase of the labour supply. Labour market is flexible and very quickly adjusts to the new situation. The level of the real wages decreases, and the equilibrium will be set up again.
2. Increased government expenditures have impact on the market of goods and services, especially through the savings and investments. At any level of production increased government purchases reduce the level of national savings and thereby increase the real interest rate that establishes a new equilibrium. Changes in fiscal policy did not directly affect the market supply and demand of money. But in this situation, to restore general equilibrium price level has to be adjusted. First, increased government expenditures arise aggregate demand. It will exceed the total production, i.e. the aggregate supply of goods and services, and the price level will increase. The new equilibrium will be reach at higher price level. It is the same situation with the interest rate. Real interest rate and the production will be at the higher level.

The general conclusion is that with the increase in public expenditures, the total production, employment, the real interest rate and the price level increase. The employment growth is a result of rising labor supply rather than demand, while the real wages are falling as public procurement increases. According to this, it is obvious that changes in fiscal policy can be used to compensate for cyclical fluctuations and to stabilize macroeconomics, but the second question that is important for our analysis is whether policy makers should use fiscal policy to mitigate business cycle fluctuations? The wage flexibility and prices are argument why the government intervention does not improve macroeconomic disorders. The recession, with reduced output, employment and real wages, is still a serious problem for the economy. But the classics theory claim that those problems should not be overcome by state intervention measures such as fiscal policy measures. The previous explained effects of the increased government expenditures are an example. Increasing

public expenditures in order to increase the overall production and employment in the economy gives the opposite effect, because it does not make people richer but rather poorer. The application of such measures of state intervention is useful only if the benefits that people receive are greater than the costs that they cause. Also, they emphasized the “time lag” that exists between the decision-making process and the application in the economy. Economic policy makers should always have in mind this criterion.

The second type of shocks, according by classicists is called nominal shocks. Nominal shocks affect the supply and demand of money. Monetary policy has a range of measures at its disposal, such as regulating the discount rate, open market operations, and issuing new money that can increase or decrease the money supply in the economy. Previously in the literature was considered that the change in the money supply through monetary policy is neutral. The change in the money supply causes a proportional change in the price level, but does not cause changes in production, employment and the real interest rate. Recent research suggests that the changes in the money supply have impact on real variables as the result of the short time of adjustment of the prices. This period of adjustment according to the classics is too short to be significant, because prices are adjusting quickly. The argument that classical economists, especially RBC economists, emphasizes for the non-neutrality of money are the sequence of effects that money has on the economy. It is expected that the increased level of production in the future will increased the money in the economy, hence, the decreased production will cause decrease money supply in the future.

The impact will depend upon the expectation of the changes. If the changes in monetary policy are anticipated, then there is no effect in the economy. The anticipated change in the money supply in the economy caused an increase in the general price level by the same percentage, but the total production did not change, it remained at the level of production of full employment. So, money is neutral in the short and long term, when change can be predicted.

Contrary, if the monetary policy changes are unanticipated it will produce higher impact in the economic activity. Therefore, the main conclusion would be that the unanticipated increase in the money supply causes an increase in total production, which confirms the non-neutrality of money, but in the short term. In the long run, once all the changes in the price level are realized as a result of the changes in the money supply, the money is non-neutral in the long run.

The general conclusion would be that if the economy wants to achieve effects on real variables such as production and employment, the use of

monetary policy measures should be unpredictable and unexpected so that people cannot anticipate and calculate their behavior. A problem with the implementation of this is the fact that the public has rational expectations that easily predict the behavior of the Central bank and monetary authorities cannot surprise the public.

The answer to the defined dilemma of whether to apply restrictive or expansive fiscal policy requires, first of all, depends on the question whether fiscal and monetary policy should be used to stabilize the economy at all. There are arguments on both sides: arguments for using macroeconomic policy measures to stabilize the economy and arguments against the application of measures to stabilize the economy. But in the present pandemic circumstances when all countries are focusing the huge economic consequences it is obligatory for Governments to use both fiscal and monetary measures for ensuring the functioning of the economies.

2. ECONOMIC POLICY MEASURES AS ACTIVE RESPONSES TO THE PANDEMIC IN DIFFERENT COUNTRIES

According to the previously presented theoretical explanation, all Governments use measure that have impact on both sides, the aggregate supply and demand. All at once, monetary measures that ensure monetary stability and fiscal measures that give impulse to the aggregate demand were implemented at the same time in most of the countries. The implementation of these economic measures is in progress and there is still no precise data. Therefore, this section of the paper is short review of some taken measures in the EU and North Macedonia that are ongoing.

Facing the exceptional circumstances, the Member States of EU and the European Commission agreed that an immediate, ambitious and co-ordinate policy is needed. They respond swiftly and flexibly to development as they unfold. They agree to use all instruments necessary to limit the socio-economic consequences of the COVID-19 outbreak.

The European Central Bank has reacted with strong monetary policy and supervisory measures announced on 12⁴ and 18 March 2020 (Table 1).⁵ At the same time the Governments started to announce and implement various fiscal

⁴ <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.mp200312~8d3aec3ff2.en.html> (access date 12.4.2020)

⁵ https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html (access date 12.4.2020)

measures to contain the economic fallout. European state aid rules and fiscal rules have been suspended.

European Commission preliminary estimates that total fiscal support to the economy will be very sizeable. The first set of fiscal measures are about 1% of GDP, on average, for 2020 to support the economy, in addition to the impact of automatic stabilizers, which should work fully. Also, it committed to provide liquidity facilities of at least 10% of GDP, consisting of public guarantee schemes and deferred tax payments. These figures could be much larger going forward.

Table 1 Monetary measures in the European Union

12 March 2020	18 March 2020
<p>1. Additional longer-term refinancing operations (LTROs) will be conducted, temporarily, to provide immediate liquidity support to the euro area financial system. These operations will provide an effective backstop in case of need. They will be carried out through a fixed rate tender procedure with full allotment, with an interest rate that is equal to the average rate on the deposit facility. The LTROs will provide liquidity at favorable terms to bridge the period until the TLTRO III operation in June 2020.</p>	<p>1. It is launch a new temporary asset purchase programme of private and public sector securities to counter the serious risks to the monetary policy transmission mechanism and the outlook for the euro area posed by the outbreak and escalating diffusion of the coronavirus, COVID-19.</p> <p>This new Pandemic Emergency Purchase Programme (PEPP) will have an overall envelope of €750 billion. Purchases will be conducted until the end of 2020 and will include all the asset categories eligible under the existing asset purchase programme (APP).For the purchases of public sector securities, the benchmark allocation across jurisdictions will continue to be the capital key of the national central banks. At the same time, purchases under the new PEPP will be conducted in a flexible manner. This allows for fluctuations in the distribution of purchase flows over time, across asset classes and among jurisdictions.</p> <p>A waiver of the eligibility requirements for securities issued by the Greek government will be granted for purchases under PEPP. The Governing Council will terminate net asset purchases under PEPP once it judges that the coronavirus Covid-19 crisis phase is over, but in any case not before the end of the year.</p>
<p>2. In TLTRO III, considerably more favorable terms will be applied during the period from June 2020 to June 2021 to all TLTRO III operations outstanding during that same time. These operations will support bank lending to those affected most by the spread of the coronavirus, in particular small and medium-sized enterprises. Throughout this period, the interest rate on these TLTRO III operations will be 25 basis points below the average rate applied in the Eurosystem’s main refinancing operations.</p>	<p>To expand the range of eligible assets under the corporate sector purchase programme (CSPP) to non-financial commercial paper, making all commercial papers of sufficient credit quality eligible for purchase under CSPP.</p>

<p>3. A temporary envelope of additional net asset purchases of €120 billion will be added until the end of the year, ensuring a strong contribution from the private sector purchase programmes.</p>	<p>To ease the collateral standards by adjusting the main risk parameters of the collateral framework. In particular, we will expand the scope of Additional Credit Claims (ACC) to include claims related to the financing of the corporate sector. This will ensure that counterparties can continue to make full use of the Eurosystem's refinancing operations.</p>
<p>4. The interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 0.00%, 0.25% and -0.50% respectively. The Governing Council expects the key ECB interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics.</p>	
<p>5. Reinvestments of the principal payments from maturing securities purchased under the APP will continue, in full, for an extended period of time past the date when the Governing Council starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.</p>	

Source: <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.mp200312~8d3aec3ff2.en.html>; https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html (access date 20.4.2020)

The analyses of the discretionary fiscal measures (Table 2), that are ongoing in the European Area, United Kingdom and the USA, can be classified in three main groups:

- 1. Immediate fiscal impulse** – These types of measures immediately lead to deterioration of the budget balance:
 - additional government spending (health sectors and civil protections systems, liquidity support for firms facing severe disruption and liquidity shortages, especially SMEs and firms in severely affected sectors and regions, including transport and tourism, benefits to keep people employed, support to the SMEs) and
 - foregone revenues (such as the cancellation of certain taxes and social security contributions).
- 2. Deferrals** – one of the Government measures is to defer certain payments for a prolonged time. These measures improve the liquidity of individuals and companies and only prolong the individual and

companies' obligations toward Government, that cause imbalance of the budget in 2020, which will be improved later.

- Some of the countries decided to defer the servicing of loans or the payment of utility bills. This is also a measure which improves the liquidity position of those impacted. Even if the loans were granted by private banks and utilities are provided by private providers, it will have effect to the budget balance in 2020 because of the lower profits and consequent taxes. It is also expected to be paid postponed.

3. **Other liquidity provisions and guarantees** – These measures include export guarantees, liquidity assistance, credit lines through national development banks. Some of these measures, especially credit lines, are not automatic and generally apply to the target groups and improve the liquidity position of the private sector, but require action from the impacted companies. Credit lines and guarantees will not affect the budget balance in 2020, but would create contingent liabilities later.

Table 2 Discretionary fiscal measures adopted in response to COVID-19 in some countries as % of GDP in 2020

Country	Immediate fiscal impulse	Deferral	Other liquidity/guarantees
Belgium	0.7%	1.2%	0.0%
Denmark	2.1%	7.2%	2.9%
France	2.4%	9.4%	14.0%
Germany	6.9%	14.6%	38.6%
Greece	1.1%	2.0%	0.5%
Hungary	0.4%	8.3%	0.0%
Italy	0.9%	13.0%	7.3%
Niederlands	1.6%	3.2%	0.6%
Spain	1.1%	1.5%	9.1%
United Kingdom	4.5%	1.4%	14.9%
United States	5.5%	2.6%	4.1%

*calculations by 16 April 2020, according to the GDP in 2019

Source: <https://www.bruegel.org/publications/datasets/covid-national-dataset/> (access date 20.4.2020)

Beyond new spending measures, some governments are likely to postpone or cancel some earlier planned expenditures, like certain investments. The reason is partly the need to provide more fiscal resources to the fight against the pandemic and its economic impact and partly supply disruptions.⁶

The economic measures in the North Macedonia were adopted with little delay due to the political situation in the country. Before the crisis, the process of parliamentary elections begun and the Assembly was dissolved. In order to deal with the health and economic crisis caused by the COVID-19 virus, the President of North Macedonia declared a state of emergency. It created legal conditions for the Government to issue regulations and decrees with legal force for all measures related to this crisis, but it took more time than expected.

First measures were adopted on February 25, 2020. Then, in March, the Government of North Macedonia adopted more than thirty decisions/regulations with legal force related to the health care protection of the population. They are similar with those of most countries in the world and are related to: border control, quarantine at the border; travel ban, shutting down public transportation; lock-down; curfew; school closure (elementary, secondary, universities); other major social distancing measure (e.g. mandatory home office, cap on public gatherings).

The preview of the ongoing measures in North Macedonia is presented in Table 3.

Table 3 Measures in the North Macedonia (first and second adopted package)

Policy	Measure
Immediate fiscal impuls	1. Development Bank of North Macedonia will issue 5,7 million euros and additional interest-free loans for companies of new 8 million euros
	2. The state saves jobs -This is Government financial support program for employers in the private sector affected by health and economic crisis caused by SOVID-19 virus to preserve jobs
	3. Cash compensation for the citizens who lost their jobs due to the crisis, in accordance with the length of service through the Employment Agency.
	4. Financial assistance for self-employed persons
	5. The state takes care of persons who are part of the informal economy and who have lost their income - provides financial assistance for households and energy allowance for social protection beneficiaries

⁶ <https://www.bruegel.org/publications/datasets/covid-national-dataset/> (access date 20.4.2020)

	6. Subsidies on contributions for employees in companies in the sectors of tourism, transport, catering and other affected companies, for the months of April, May and June, 2020
	7. Compulsory use of the first part of the annual leave
Deferrals	1. Deferral of loans with banks
	2. Freezing, prolonging or reprogramming loans for citizens and companies affected by the Corona crisis
	3. Exemption from advance payments on personal income tax and the advance payments on income tax, for the months of March, April and May 2020
	4. It is forbidden to open a bankruptcy procedure
	5. The law on enforcement is suspended or stopped until the end of June
	6. Reduction of the installment and reprogramming of loans to financial companies and leasing companies
Other liquidity provisions and guarantees	1. 50 million euros cheap loans from the Development Bank of North Macedonia placed through commercial banks to protect the liquidity of companies
	2. Cash compensation for the citizens who lost their jobs due to the crisis, in accordance with the length of service through the Employment Agency
	3. Uninterrupted transport of goods, road traffic and facilitation of the work of companies in the construction sector during the state of emergency
	4. Compulsory use of the first part of the annual leave
	5. Financial assistance for independent artists
	6. Prohibition on the export of wheat and flour
	7. Freezing prices of lemons, oranges, tangerines, grapefruit and clementines.

Source: <https://vlada.mk/?ln=en-gb> (access date 25.5.2020)

The implementation of the third set of economic measures is in progress. For implementation of the first and second set are predicted about 195 million Euros to be spend. For the third set of measures the Government announced to spend about 355 million Euros. Altogether, North Macedonia will spend about 550 million Euros, which is about 5% of GDP.

Conclusion

Government active role in handling the situation with pandemic is obligatory. The imbalance in the economy arises from both side of the aggregate supply and demand. According to the macroeconomic model, government has a set of monetary and fiscal measures to intervene in the economy. Primary effects of the outbreaks are reflecting the goods and service market and they are rapidly being transferred to the labour and financial markets. Active measures must be implemented, so they can prevent massive layoffs and liquidity of private sector.

It is very important to bear in mind the macroeconomic situation in each country. That means, that Government must predict the consequences of each taken measure. The economic measures that are in progress will cause problem in maintaining the liquidity of the budget. So, the increased public debt, especially in the developing countries, will emphasizes the problem of indebtedness. The monetary policy will have to use every instrument to maintain monetary stability (stable exchange rate and price stability), as well as maintaining stability of the banking sector. It is necessary policy measures to be set up for long term to handle the secondary effects by pandemic – prolonged recession and fall in living standard.

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(Original scientific paper)**

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THE EXPORT PROMOTION OF SMES IN WESTERN BALKAN COUNTRIES (WB 6)

Abstract

The growth of national economies is closely connected to export potential of companies. For small and open economies, the exports and increasing competitiveness of companies on the global market is a prerequisite for maintaining their long-term growth. At the same time, small and medium enterprises (SMEs) are facing the challenges of integration into international markets due to the lack of managerial, financial and technical capacities, which limits their competitiveness. Therefore, there is a need for institutional export support for the SMEs.

Basically, the export support refers to a series of planned and coordinated activities and measures for export promotion. The aim is to support companies in identifying market opportunities, obtaining necessary information and to promote and facilitate their export. As one of sub-dimension of export support, export promotion makes specific recommendations for increasing the capacity and efficiency of the institutional system.

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The micro, small and medium-sized enterprises (MSMEs) are constantly faced with the lack of market information, finance, market experience and export knowledge. In the Western Balkan countries (WB 6), the export promotion of SMEs enhances their visibility, optimizes their productivity and harmonizes their activities at regional and global level. This paper gives a brief overview of the main characteristics and a comparative analyse of export promotion strategies in WB 6 countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia).

Key words: export promotion, SMEs, internationalisation, Western Balkan countries

Jel classification: M13, M30, M38

Introduction

Based on a widespread experience of the last decades, high growth and successful catching-up of less or medium-developed small economies was closely linked to their choice of an export-oriented development pattern.² One of the means for assessment of national competitiveness is the ability of the country to sell goods and services on the global market, usually measured through the current account balance or by the nation's share on the world market.³ In terms of exports, the competitive advantage could be created by active approach on defined micro, mezzo and macro strategies. These advantages are structural attributes of the economy, as well as terms for problems evaluation on different levels: companies, sectors and national economy.

In the new millennium, global competition, fast communication and modern means of transport causes significant changes in the business world. Integration of each national economy into global economic processes is determined by its current competitiveness level. The promotion of competitive advantages into a dynamic strategic instrument of economic growth is a result of the coordinated interaction of a significant number of factors.

² AndrásInotai, *Sustainable Growth Based on Export-Oriented Economic Strategy - The Bulgarian Case in an International Comparison*, Economic policy Institute, Sofia, 2013, p.2

³ Aiginger K, *A framework for evaluating the dynamic competitiveness of countries*, Structural Change and Economic Dynamics, No. 9, 1998, p. 174

Based on the modern trends, technology development and acceptance of applicable standards and rules of international competitive behavior, the internationalization is becoming important process for the development of national economies. The competitiveness is closely connected to the internationalization of companies. In response to the liberalization of foreign trade and increased competition, countries are developing policies and implementing a range of mechanisms and activities to help companies' in promoting their offerings in order to increase their export.

The developed economies, to a significant extent, owe their development to the internationalization of small and medium-sized enterprises (SMEs). Following these experiences, the developing countries creates their national policies, strategies and programs for enabling the SMEs to be easily integrated on the global market.

In order to support and promote export, companies need to identify the existing opportunities, to create new products, to find new markets, and determine ways to meet the needs and requirements of foreign markets. One of the most used form in achieving these goals is the export promotion. Its main purpose is to encourage export activities for the successful internationalisation of SMEs, in order to increase their productivity, accelerate their innovation and enhance their competitiveness.⁴

Given that most of the economies of the Western Balkans region are relatively small, access to global markets can support SMEs' long-term viability. The market reach can be broadened and strengthened through exposing them to international competition. In providing the efficient support, a clear export promotion measures should enable SMEs to acquire more capabilities, qualifications and resources to enhance competitiveness, increase export opportunities and successfully positioning on the global marketplace.

⁴ Мајсторска Ј. *Извозната промоција како еден од инструментите на индустриската политика (докторска дисертација)*, Економски институт, Скопје, 2011, стр. 49

1. EXPORT PROMOTION –A GENERAL OVERVIEW

The interest in export promotion is primarily driven by increased exports and foreign investment as drivers for sustainable growth and economic development. The goal is to attract attention, increase supply awareness, create a relationship and trust that should result in increased exports or increased inflow of foreign investment.

Proactive export promotion policies can help economies to diversify their exports by encouraging trade in goods for which they have a comparative advantage. Export promotion may create learning opportunities that result in new forms of comparative advantage, and therefore attract export-oriented investment. The impact of export promotion agencies (EPAs) and their strategies suggest that have a strong and statistically significant impact on exports. It estimated that for each USD 1 of export promotion, there is a USD 40 increase in exports.⁵

The institutional export support is mostly given through a range of measures, instruments, specialized institutions and programs for realization of export and investments.

Export promotion programmes comprise various services, ranging from economy image-building (including promotional events and policy advocacy), export support services (including training, regulatory compliance and information on trade finance, customs), to marketing (including trade fairs and exporter missions), and market research and publications.

According to the regional experiences, export promotion is one of the most used forms or sub-dimensions for export support of SMEs. Other sub-dimensions are programs for the promotion of the SMEs integration into global value chains, and the programs for promotion and use of e-commerce. The integration of SMEs into global value chains is a sub-dimension of support used to facilitate the links between SMEs and larger exporting domestic or global companies. The sub-dimension for promoting and increasing the use of e-commerce for SMEs examines the prevalence of legal frameworks to secure online payments and consumer protection, and further analyzes in-place supports to facilitate SMEs uptake of e-commerce.⁶

Export promotion supports companies to identify and develop products, analyze new market opportunities, obtain marketing information, maintain

⁵ *Competitiveness in South East Europe: A policy outlook*, OECD, 2018, p. 122

⁶ *SME Policy Index, Western Balkans and Turkey 2019, Assessing the implementation of the small business act for Europe*, OECD, ETF, European Union and EBRD 2019, p. 66

business contacts, facilitate access to export markets, and so on. The institutions should also play an active role in the creation the affiliate programs in order to increase company competitiveness on the global market.

The micro, small and medium-sized enterprises (MSMEs) are significantly dependent on the instruments and mechanisms of state support and promotion as an export catalyst.⁷ While the large companies have enough potential, capacity and knowledge to break into the foreign market themselves and often do not need much help, SMEs undoubtedly requires an active institutional support for their entry and for positioning in the international markets.

As in the most countries in transition, in the beginning of 21st century, an obvious lack of big markets led to greater market fragmentations, where SMEs had successfully entered thanks to their innovative and entrepreneurial skills.⁸ The entrepreneurship is where a raw idea develops into a high-growth company and the success involves strong main entrepreneur and a team with complimentary talents. At the heart of the entrepreneurial process are the creation and/or recognition of opportunities.⁹ Export promotion should enable entrepreneurial and innovative spirit and ideas to be fostered, while supporting and promoting SMEs opportunities for increasing their competitiveness.

The SMEs are constantly faced with different problems: lack of sufficient market information, finance, experience and knowledge. The export promotion support basically comes down to creating export promotion programs, enhancing competitiveness of the companies, providing market information, studies, consultancy, networking, attendance at trade fairs, financial export promotion support and the like. The export promotion support should be created in line not to hinder the EU and WTO regulations for state aid, where is prohibited state aid directly linked to the quantities exported, to the establishment and operation of a distribution network or to other current expenditure linked to the export activity or aid favoring domestic goods over imports.¹⁰

⁷ Мајстороска Ј. *Извозната промоција како еден од инструментите на индустриската политика (докторска дисертација)*, Економски институт, Скопје, 2011, стр. 110

⁸ Zijad D., *Business environment-the case of Western Balkan countries*, Economic Review – Journal of Economics and Business, Vol. XII, Issue 2, November 2014, p.74

⁹ Sonja Markova, Tatjana Petkovska-Mirchevska, *Finantial options for entrepreneurial ventures*, RevistaEconomic, Vol XI • Nr. 26 • June 2009, p. 598

¹⁰ Official Journal of the European Union, *Commission Regulation (EU) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid* <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1407&from=EN>

Also, the competent institutions and programs are in place to create the institutional infrastructure that will enable SMEs incentives to be provided. Export promotion assesses governments' support for export promotion, examines whether governments have operational export promotion programmes in place that target SMEs and considers the provision of services to help them to penetrate on international markets.

All WB 6 countries have dedicated institutions to carry out the export promotion programmes. Since budgets and other resources are not always fully utilized, there needs to be ongoing analysis to increase the uptake of export promotion programs across the region.

2. EXPORT PROMOTION IN WB 6-A COMPARATIVE ANALYSIS

Before we turn to the comparative analysis of export promotion institutional support structure and programs in WB 6, we will refer to a previous research on the topic: *Increase of Export Potential of SMEs in WB 6 Region Open Regional Fund South East Europe - Foreign Trade (ORF FT)*.¹¹ In the research, the survey of 144 companies in the agro-food sector in the WB 6 was conducted. Some of the main findings indicates the export challenges for the companies, including regional cooperation, export support etc. For the purpose of this paper, the data related to the most commonly used forms of export promotion, as well as the data on how many companies are satisfied with export support from the state, associations, chambers and other institutions are shortly interpreted.

The survey was conducted on a sample of 144 companies that by the number of employees fall into the category of micro, small, medium and large companies. More than a half of the surveyed companies (64%) belong to the category of micro and small companies, ie: 31% are with 1-5 employees, 22% are with 10-20 employees (22%) and 11% are with 6 -9 employees. About the form of export promotion, more than half of them (51%) believes that the most common form are trade fairs, which implies state support for their participation. Also, more than half of the companies (51%) are not satisfied with the export services offered. Of these, most dissatisfied are companies from Montenegro

¹¹ *Final Evaluation, Export Readiness Assessment (ERA) WB 6 countries, Project: Increase of Export Potential of SMEs in WB 6 Region Open Regional Fund South East Europe – Foreign Trade (ORF FT)*, within the sub-project of the Trade and Competitiveness Fund of GIZ and the Chamber of Commerce of the Republic of North Macedonia, Skopje, 2019

(80%), and only 11% dissatisfied companies from North Macedonia.¹²This could be an indication that SMEs support and export promotion programs in our country are generally assessed as satisfactory.

For identification of specifics, characteristics, similarities and differences between the approaches in export promotion for SMEs, a brief review and comparative analysis was conducted in WB 6 countries: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, Serbia and Northern Macedonia.

Albania is considerably behind other WB 6 economies in the export promotion activities. Although the Albanian Investment Development Agency is autonomous, it currently has only two specialists employed in the export sector of the SME and Export Department.¹³ The export support for SMEs included covering 70% of export costs related to product improvements like: packaging, product conformity and certification, trade fair participation and promotion materials. The financial export support is for goods and services through the Export Credit Guarantee Funds. The technical support covers the provision of market information, assistance in drafting marketing plans, and identifying SMEs needs and training deficiencies.¹⁴

Bosnia and Herzegovina has made marginal improvements in its export support for SMEs, although it still below the regional average. The export promotion programmes in the Federation arises from the 2016-18 Action Plan for the Realisation of the Project Development of SMEs. In Republika Srpska (RS), the measures for export promotion are planned in the SMEs Strategy and the Foreign Investment Encouragement Strategy for the period 2016-20. The institutions are mostly providing technical support and organising SMEs promotion events. The RS also has a network of representation offices in Austria, Belgium, Germany, Greece, Israel, Russia, Serbia and the United States, which organises periodic training for domestic SMEs on export opportunities to the relevant country. The Chamber of Commerce and Industry in RS also supports the annual participation of business entities in domestic and international trade fairs in co-operation with chambers of commerce in the region and abroad, diplomatic and consular missions, representation offices and international organisations. The export promotion is carried out by the Ministry of Economic Relations and Regional Co-operation and the Republic Agency for Development of SMEs. It provides mostly technical support and

¹² Ibidem

¹³ *Competitiveness in South East Europe: A policy outlook*, OECD, 2018, p. 123

¹⁴ *SME Policy Index, Western Balkans and Turkey 2019, Assessing the implementation of the small business act for Europe*, OECD, ETF, European Union and EBRD 2019, p. 513-517

organizes promotion events, while funding opportunities for SMEs remain limited.

At the state level, the Export Promotion Chamber of the Foreign Trade Chamber supports the export promotion policies with the Ministry of Trade and Economic Relations. The Foreign Trade Chamber provides activities for SMEs as the support for their participation in international trade fairs and foreign market research, website with sparse information etc. For the financial support, in 2017, the Foreign Trade Chamber allocated grants in total of EUR 385 000 for organisation of trade fairs in Bosnia and Herzegovina and about EUR 187 000 for participation in international trade fairs.¹⁵

In **Kosovo**, export promotion was covered under the Private Sector Development Strategy, which included actions on export and investment promotion and support of potential export sectors. The main priorities include strategic approach in supporting the SMEs to achieve a higher value of exports through a sectoral approach. The export support services consist of trade policy information and commercial intelligence, economy representation at major trade fairs, export promotion, marketing, product development and training. Financial support is also offered to manufacturing companies with export potential. In 2018, Kosovo's Investment and Enterprise Support Agency had only three employees (in 2019) an allocated budget of EUR 351 000 for its export promotion, which maintains a database for exporting companies, provides detailed sector reports for export-seeking SMEs on its website and guidelines on exporting and information on creating a marketing plan.¹⁶

In **Montenegro**, the measures for support and promote exports are part of the Strategy (2018–2022). The action plan includes the export promotion as one of its pillars, with activities for reducing trade barriers and simplifying export and import procedures. Activities in the action plan of the Strategy 2018-2022 includes providing information and educational support on accessing international markets, creating a database of international trade fairs and holding export information seminars and providing support for participation in international markets.¹⁷ The export promotion activities will continue to be co-ordinated by the Ministry of Economy.

Serbia's export promotion programmes for SMEs are directly linked to its SMEs Development Strategy 2015-2020. The Serbian Development Agency has been the responsible institution for export promotion in Serbia since 2016.

¹⁵ Ibid, p. 583-587

¹⁶ Ibid, p. 655-660

¹⁷ Ibid, p. 727-730

In relation to other WB 6 countries, the export promotion institutions in Serbia are the most appropriately funded. Export Promotion programme has two components. The first is to support individual exhibits at international fairs abroad, covering up to 50% of companies' individual costs, with the total budget around EUR 330 000. The second is to support organization of company visits abroad, covering with 50% of costs in each programme in the form of grants.

In order to facilitate access to finance for export-oriented SMEs, the domestic SMEs are treated equally to foreign companies. It means that domestic companies could receive the same subsidies for investment as foreign companies. Additionally, Serbia's Export Credit and Insurance Agency offers export credit insurance, financing, factoring, and guarantees to exporters companies in Serbia.¹⁸

North Macedonia's performance in export promotion is above the average of the region. Despite the fact that there is no separate Export Promotion Strategy, export promotion is covered in the Ministry of Economy's strategic documents like Industrial Strategy 2018-2027 and National Strategy for Small and Medium Enterprises (2018-2023). Activities to support export promotion for SME's include: SMEs to enter on fast-growing international markets, increased support to the export promotion agency through the SMEs export promotion programme, improved monitoring and evaluation of export promotion services through the preparation of an annual report on SMEs participation in export markets etc.

The financial and technical support is given to export-ready SMEs. The Ministry of Economy provides co-financing to SMEs, primarily from manufacturing industry at 75% up to a maximum amount of EUR 5000 for the market research, marketing strategy, training and promotional materials. It also supports clusters at a 75% co-financing rate for export promotion and foreign fairs.¹⁹ In the latest Program of the Ministry of Economy companies can receive support for brand development and development of IT platforms for e-commerce.

Also, the Competitiveness Strategy and Action Plan for the period 2016-20 covers measures for export promotion. It seeks the selection of 250 SMEs with export potential for their support as technical and financial assistance. The primary bodies responsible for implementing the above activities include the Ministry of Economy, Agency for Foreign Investments and Export Promotion - Invest Macedonia and SMEs development agencies.

¹⁸ Ibid, p. 868-873

¹⁹ Ibid. p. 422

The export promotion activities are organized through the Agency for Foreign Investment and Export Promotion of the Republic of Macedonia (Invest Macedonia). The latest is the primary government agency responsible for export promotion of companies. Its website is a centralised source of information to guide companies on exporting activities; a comprehensive handbook for export promotion; links to useful contact points which include other government institutions and relevant agencies, consulting firms, banks, chambers of commerce and state-owned enterprises. Also, Invest Macedonia offers support through promotional events, arranging business-to-business meetings and qualified export promotion leads in order to help domestic producers.²⁰

Conclusions

The market liberalization, trade development and increased competition impose the need to initiate measures and activities for export promotion. In developing countries, institutional support in promoting exports is an important segment in providing the preconditions for long-term company development.

The WB 6 countries have strengthening their availability of export support activities, as SMEs integration into global value chains, supporting e-commerce and export promotion. The WB governments analyse, design and plan export promotion programmes in accordance with the national SMEs strategies. The export support is on areas such as trade policy and commercial information, representation at major trade fairs, marketing, product development, training, and provision of financial support for export activities and the organisation of export promotion events for SMEs.

In comparison to other countries, the performance in export promotion in Republic North Macedonia's is above the average of the region of WB. In general, the comparative analyse of export promotion in WB 6 countries shows that all of them have implemented their own forms of export support activities. They all have implemented an export promotion SMEs support programs, created and implemented according to their needs and available resources.

In all WB countries, there are established dedicated institutions and programs to carry out export promotion for the SMEs, mainly on promoting exports overall. Currently, all of them provide some form of assistance to SMEs

²⁰ Ibid, p. 420

to foster their exports and access to international markets. This assistance covers the provision of specific information on trade policy and commercial intelligence, financial support at trade fairs, training courses on marketing and product development. However, it is evident that capacity of export promotion agencies in the WB 6 economies could be strengthened, both in terms of specialized staff and a dedicated budget for implementation of export promotion activities.²¹ Also, export promotion strategies and programmes among SMEs in some WB 6 countries could be improved. There are weaknesses particularly in the areas of underfunded and untargeted export promotion agencies, as well as the insufficient financial resources for export promotion activities. Also, there is a problem of allocated budgets which is not always fully used by the SMEs.

Another problem is that the average budget for export promotion activities in all WB 6 countries is significantly lower than other economies in the broader region, for example Slovenia.²² The problem on the insufficient financial resources devoted to export promotion in the WB 6 countries are further exacerbated by the fact that export promotion agencies, in most cases, do not have a clear focus on certain activities or sectors. This could hamper the effectiveness of the economies' export promotion efforts.

Overcoming the weaknesses and improving the efficiency of export promotion, requires a comprehensive and holistic approach in order to enhance SMEs export and internationalization opportunities in the WB 6 countries.

²¹ *Competitiveness in South East Europe: A policy outlook*, OECD, 2018, p. 124

²² In 2016, Slovenia's export promotion agency had an operational budget of EUR 2.1 million on internationalization activities. Source: *SME Policy Index, Western Balkans and Turkey 2019, Assessing the implementation of the small business act for Europe*, OECD, ETF, European Union and EBRD 2019, p. 420

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(Original scientific paper)**

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THE IMPACT OF MOBILE MARKETING IN BUILDING CUSTOMER LOYALTY

Abstract

The rapid growth of Internet revolution, especially in the era of mobile phones' market has change the direction of marketing, its practice and implementation. Mobile marketing has become the significant communication's tool and one of the most important advertising tools. In today's fast paced environment, loyal customers are essential for existence of any type of organization. Due to the high level of market saturation, increased competition and globalization, organizations cannot afford to lose their customers, therefore the importance of customer loyalty is growing and is directly connected with profitability of the organizations. The purpose of this paper is to investigate if mobile marketing can be used for building customer loyalty. The findings present that customers prefer to receive feedback and interact with companies on their mobile phones, and they believe that mobile marketing tools are positively contributing towards improving their relationship.

Keywords: *customer loyalty, customer loyalty factors, mobile marketing, social media.*

JEL classification: M37, M30, M3

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Introduction

Nowadays, getting attention of customers and keeping them loyal is every company's goal and a top objective of marketers. The rapid growth of the technological development, over past three decades, caused global evolution of electronic commerce and interactive digital media (Baird & Parasnis, 2011). There is no other factor that has such impact on business activities like the development of the information technology. Such changes cause communication from business to consumers to be changed and created a need for constantly creating and adapting the marketing strategies (Barutcu, 2008). Past researchers have acknowledged the importance of mobile marketing tools as a way for building customer engagement with a brand using mobile phones (Shankar & Balasubramanian, 2009; Leppanierni & Karjaluoto, 2008; Scharl et al., 2005). Other advantages from a marketer's point are the two-way communication, high ratio of personalization, higher rate of responsiveness and inexpensive way of reaching the right target groups at apparent time and place (Facchetti et al., 2005; Anckar & D'Incau, 2002;) and which potentially will result in increased revenues and cost reductions (Baird & Parasnis, 2011). The importance of having loyal customers has gain more attention in the overall marketing strategies (Gommans, Krishnan & Scheffold, 2001), striving to build and maintain long-term relationships, with ultimate goal of creating customer loyalty (Kuusik, 2007). The usage of mobile marketing can play powerful role in building and maintaining customer loyalty in various ways, as developing a network of customers that are satisfied and loyal is the key for survival of companies (Gloud, 1995).

1. MOBILE MARKETING AND INFLUENCE ON CUSTOMER LOYALTY

Mobile phones nowadays provide wireless connection which enables communication to be easier and simple than ever before. However, such features are in constant development and are moving forward in a way to be able to capture social needs and wants (Boudriga, 2009). The acceptance of mobile phones was beneficial for everyone, following mass usage of Internet and social networks interaction, providing new marketing communications opportunities. It is a new marketing communications tool (Tähtinen, 2006), especially attractive because of smartphones' numerous features as Internet, camera, television, GPS, putting aside its primary function of making phone calls (Jenkins, 2006).

It is important to mention that mobile devices can contribute towards building and maintaining customer relationships in various ways. Using technologies, companies can easily obtain customer's profiles, creating personalized message content for different segments and foster better relationships. Thus, allowing customers to interact with companies using mobile tools, and having an immediate answer and solution for their problems have been shown as effective, particularly after companies' working hours (Valsecchi, Renga & Rangone, 2007). Mobile marketing tools and all its features allows the next level in customer relationship marketing, regardless of the time and location. As marketing increasingly relies on technology, it can be assumed that mobile marketing tools has a huge potential and influence on the customer's relationship and loyalty (Chen, Hsieh & Cheng, 2009). Therefore, this paper, analyze the most used mobile marketing tools and channels as: SMS, mobile websites, email marketing, location-based services, social media and mobile application, considering the factors presented further in the literature review.

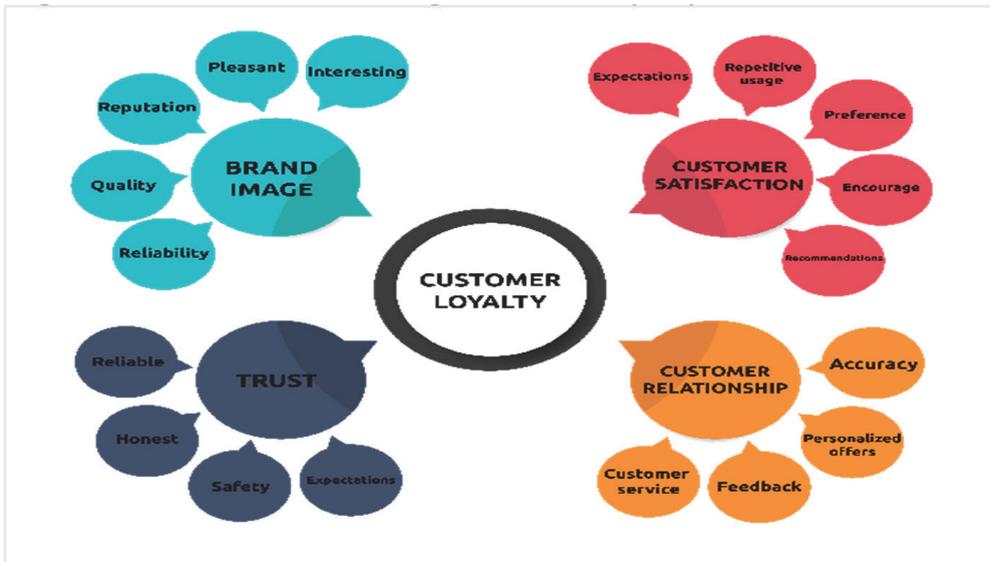
2. FACTORS INFLUENCING CUSTOMER LOYALTY

The growing importance of customer loyalty as many researchers argued, is one of the methods for organizations enhancing profit (Kumar & Shah, 2004). Customer loyalty is a big challenge for the companies nowadays. One of the ways it can be achieved is by placing the focus on customer retention or by keeping the existing customers (Reichheld, 2003; Reichheld & Sasser, 1990). The customer retention has been analyzed from many authors, and it is overall known that it is far less expensive to keep the current customers, than attracting new ones (Khalifa, Limayem & Liu, 2002). Even though Internet growth and digitalization changes the business, some authors argue there are not so much changes of customer loyalty and the old principles are still applicable even today.

As Reichheld and Schefter (2000) state, **trust** is closely related to customer loyalty. According to them, earning trust from the customers is crucial and will lead customers to reuse the same products and services from one company. Nowadays, digital presence of companies and online advertising have shown that are better generator of trust and less irritating compared to traditional media. Another factor analyzed in the literature is the **strong customer relationship**, resulting in two-way communication with customers, influencing on customer loyalty (Hennig-Thurau et al., 2010; Hub,

2005; Kotler & Armstrong, 2001). Mobile technology and all its features allow the next level in customer relationship marketing. Third factor considered in the literature is the **brand image** affecting loyalty indirectly (Kim, Han & Park, 2001), as the image of the firm influences the level of customers' trust (Lee 2005; Lacey, 2007), and impact on customers' preferences, their attitude and behaviors, purchase decisions, their satisfaction and rebuying plan (Hsieh & Li, 2008; Ekinci & Riley, 2003; Hong & Zinkhan, 1995).

Figure 1. Factors influencing customer loyalty



Source: Developed by the authors based on the literature review

Many authors and studies have shown that there is a positive relation between **customers' satisfaction** and loyalty (Anderson & Sullivan, 1993; Fornell, 1992). According to Bennet & Rundle-Thiele (2004), customers that are satisfied with the product, it is more probably they will recommend it (Nguyen & LeBlanc, 2001; Kandampully & Suhartanto, 2000), intention to repurchase (Kandampully & Suhartanto, 2000), repeat the purchase (Bloemer & Ruyter, 1998) and consequentially it is unlikely to choose to competitor's products.

Considering all from above, the following factors for customer loyalty are accepted and analyzed for the purpose of this research: trust, customer satisfaction, brand image, and customer relationship (Figure 1).

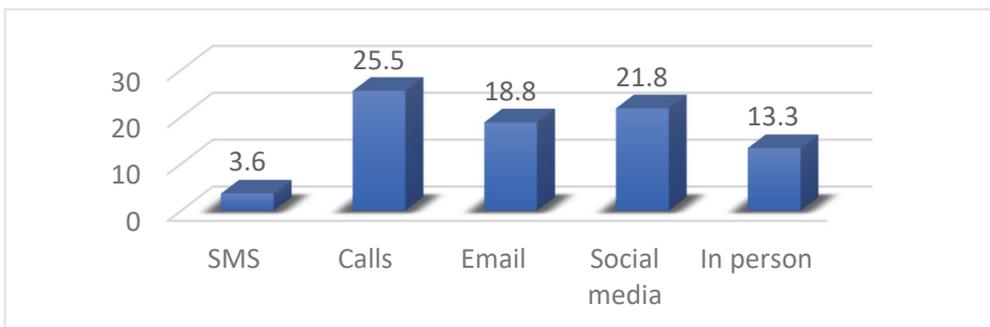
3. RESEARCH METHODOLOGY

The research methodology used for this research is quantitative using surveys on randomly chosen sample of 165 participants, above 18 years old, both males and females, in April 2017. The questionnaire was distributed using social media channels (Facebook, Messenger, Viber groups) and emails. The questionnaire was developed based on previous researches, composed of seven groups of questions, designed to collect and analyze data regarding the hypothesis. For evaluation of each of the customer loyalty factors used were specific designed statements for each of the hypothesis.

4. RESEARCH RESULTS AND DISCUSSION

According to the respondents' choice they prefer to communicate with companies using phone calls 25.5%, via social media 21.8%, email 18.8%, and meeting in person 13.3% and via sms 3.6% (Figure 2). The percentage difference is statistically significant for $p < 0.05$ between phone calls, email, social media compared to sms messages and personal meeting. The respondents said that they mostly receive feedback from companies if they contact them by making phone calls and social media. Thus, it can be assumed that receiving feedback is one of the reasons of their preferences to use these channels more than using any other channel for communication.

Figure 2 Overview regarding the question “How do you prefer to communicate with companies?”



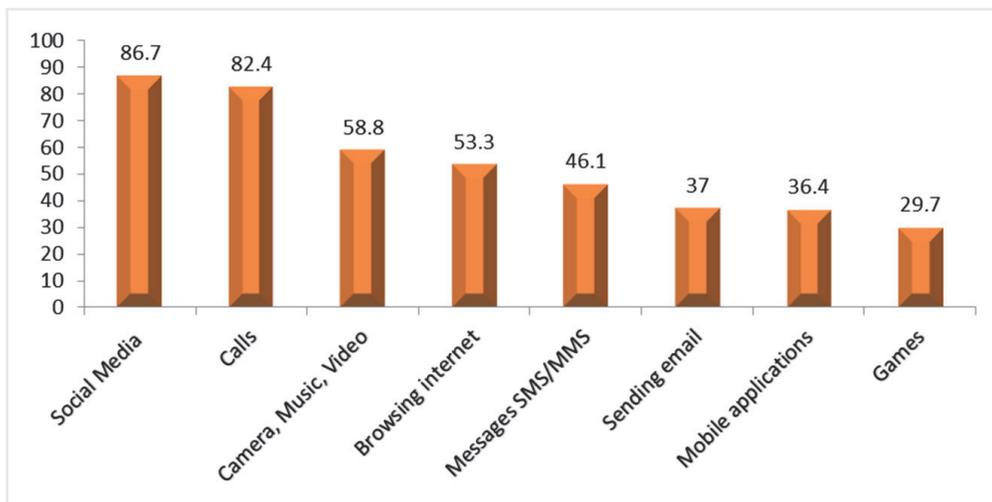
Source: Developed by the authors

The feedback from companies is one of the most influential factors on customer loyalty, so it is strongly recommended for companies to pay attention on providing their customers with timely and relevant information on the problem

that they have reported. Social media as one of the most preferable channels for communication can help strengthening the relationship with customers. Thus, companies and marketers should adopt and practice the use of social media mainly as a tool for building and maintaining the relationship with their customers.

Regarding the mobile phone usage and what the respondents use the most on their mobile devices, based on the survey, they are using their mobile phones mostly for social networking compared to other features (Figure 3). Thus, it is recommended for companies and marketers to spend most of their mobile marketing budgets on social media since the customers are spending most of their time there. Additional efforts are needed from marketers to be made to create relevant content on social media since it is almost equal the number of those that are visiting companies' social media pages through their mobile phones (41.2%) and those that do visit sometimes (41.8%). Just 7.3% of respondents answered they do not visit the company's social media sites. The percentage difference between yes and sometimes compared to no is statistically significant for $p < 0.05$. Almost the same situation is for visiting the companies' web sites using mobile phones. Regarding the question where usually they browse the companies' web sites and social media pages is presenting mostly on mobile phones (55.2%), less on computers (32.1%) and 2.4% via tablet, a large percent do not supply an answer (9.7%). The percentage difference between using mobile phone compared to other modalities is statistically significant for $p < 0.05$ ($p = 0.0000$).

Figure 3 Usage of mobile phones



Source: Developed by the authors

It is important for companies to strive to deliver creative and appealing content using mobile marketing tools, so it captures customers' attention. Depending on the relevancy of the content there is a possibility to invoke interest and desire among customers, which ultimately will lead them to take action or in other words, make a purchase.

According to the data from the research, the most valuable factor for customers regarding their loyalty is customer relationship. Followed up with customer satisfaction, brand image and trust (Table 1).

Table 1 Summarize of customer loyalty factors according to the average score

Factors influencing customer loyalty	Average score	Minimum	Maximum
Customer relationship	3.76	1.0	5.0
Customer satisfaction	3.30	1.0	5.0
Brand image	3.14	1.0	5.0
Trust	2.87	1.0	5.0

Source: Developed by the authors

For measuring the average score of each of the customer loyalty factors different statements were used. Thus, for customer relationship were used statements shown below (Table 2). According to the responses, customers are mostly satisfied when they receive feedback from companies regarding a problem they have reported and when companies provide 24/7 customer service. Additionally, their level of satisfaction regarding the relationship with the company is closely related when the companies providing them with timely and accurate information using mobile marketing tools, and the ability to express their opinion publicly by writing reviews, comments on social media about companies, their products and services.

Table 2 Overview of the average values of the score regarding the question for the level of agreement with the following statements

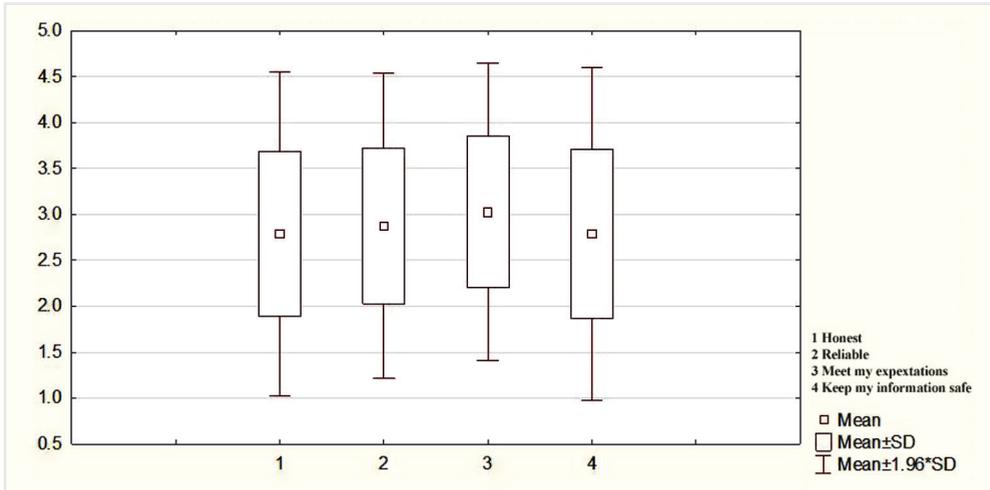
Statements	No. of respondents	Average	Minimum	Maximum	St. deviation
1. I am satisfied when the company provides me of accurate and timely information by using the mobile marketing tools(SMS messages, social networks, email, web pages)	136	3.7	1.0	5.0	1.118058
2. I am happy because I can express my opinion (reviews, comments on social networks, email) by using my mobile phone	136	3.7	1.0	5.0	0.951550
3. I am satisfied when I receive feedback from companies regarding a problem I have reported about	135	4.0	1.0	5.0	1.010448
4. I am satisfied when I can express my opinion regarding products or services of companies on their social media sites	136	3.7	1.0	5.0	0.981723
5. I am satisfied when the companies have 24/7 customer service	134	4.0	1.0	5.0	1.123803

Source: Developed by the authors

Furthermore, the majority of the respondents 44.2% answered that companies meet their expectations with the data they are sharing with the clients by using mobile advertisements, 18.2% answered that they are delighted, 12.1% answered that their expectations are not meet, 3.6% answered that their expectations are exceeded and 3.0% answered that they are not satisfied. Thus, it can be noticed that there is a positive attitude toward interaction with companies using mobile marketing tools and customers believe that mobile marketing tools are positively contributing to improving their relationship. However, the difference between those that are finding the interaction with companies using mobile tools to make them feel more secure and attached to companies (43.6%) and those they do not (38.2%) is not significant. It seems that even they may be attached to the companies, it does not have to mean that they are secured. Such, findings it may be the result of the relatively low score of the trust factor (Table 1), compared to other factors that influencing customers to be loyal.

Customers agreed that companies that are using mobile marketing are meeting their expectations and are reliable. But, their level of agreement that companies are honest and that are keeping their information safe is lower compared to the other sub factors (Figure 4).

Figure 4 Overview of the average values of the score on statements for measuring trust factor



Source: Developed by the authors

Additionally, most of them are not willing to provide their personal information (such as email, mobile number, etc.) to the companies which is another indicator that suggest a low level of trust customers have in companies. According to their answers, they think that their information will be misused, shared with others, or it will be used for promotions and marketing goals. This can be underlined as an important fact to be considered by marketers and companies on how to use the data they have from customers. Better segmentation, target analysis, clear identification of customers' wants and needs, and more personalized offers is recommended to be done from companies in order to make customers more secure in their interaction. Other methods that can be performed are educating customers, making them aware what they are signing up for, providing them with an option to sign out, selecting a right time and content will also improve the trust that customers have in companies. It can be recommended for marketers and companies to try and deliver what they promise in order to gain trust among their customers. Since, trust and customer loyalty are positively related, the more trust customer have the more loyal they are.

Conclusion:

According to the analyze, it could be concluded that mobile marketing tools can be used as a tool for building customer loyalty. Out of all factors that were examined for this research the most influential factors for customers to be loyal toward some company are customer relationship and customer satisfaction, followed up, with brand image and trust. Such data indicates that it is important for companies to focus their marketing strategies on maintaining the relationship with customers by delivering as promised so their level satisfaction can be kept on high level. While on the other hand, improvements of rightful usage of mobile marketing tools is required in order to create better image and gain customers' trust. Using mobile marketing and social media as a channel for two-way communication ease the communication with customers and it helps companies to build customer loyalty. Companies and marketers are supposed to set up their targets by focusing on customers' needs and wants with the goal of achieving customer loyalty. Following up global trends, implementing methods of advertising that have been proven as successful and customer education are needed so the companies will not fall behind in the latest marketing trends.

This paper lays the bases for furthermore detailed research by pointing out the importance of the relationship between two topics such as customer loyalty and mobile marketing. For further research, investigating more factors with impact on customer loyalty, such as price and promotional incentives could be taken into consideration. Finally, there is demo-geographical limitation of the sample structure and different cultural aspects has not been covered in this research.

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(Professional paper)**

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**EVOLUTION OF THE FINANCIAL SUPERVISION
ARCHITECTURE IN THE EU MEMBER STATES
- POTENTIAL LESSONS FOR REFORMING THE MACEDONIAN
FINANCIAL REGULATORY FRAMEWORK**

Abstract

The question of the role that the institutional design of the structure of financial supervision plays for efficient and effective execution of the financial oversight functions, has been subject of substantive empirical research over the past two and a half decades. In a quest for a more effective and efficient supervision over the financial industries, many countries across the world have restructured their national financial oversight systems in a direction of supervisory integration.

The EU has not remained immune to this trend. Most member states have introduced reforms to their national oversight frameworks over this period, and particularly in the post-global financial crisis years, which in some cases has resulted in restructuring of the overall supervisory architecture. These reforms have not ended up with a single model of an oversight structure utilized across the region, i.e. the adopted models differ significantly among the member states, however, there is an evident tendency towards a more integrated supervisory structure.

Even though the aspect of the institutional set-up of financial supervision is nowadays increasingly associated with the effectiveness of financial oversight, the conducted research in this domain in North Macedonia remains modest. The purpose of this paper is to depict the evolution of the national

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financial oversight structures across the EU member states, as also to explore the determinants influencing the choice of a certain model and degree of its integration. Based on the current state of affairs in this domain in the EU, the authors conclude that there is a need for an in-depth evaluation of the financial supervision architecture in North Macedonia. Such an analysis should contribute to, and result with a substantive discussion among the relevant stakeholders about the prospects of reforming the domestic financial supervisory framework.

Keyword: Financial supervision architecture, structural financial reforms, financial oversight structures, financial supervision

JEL Classification: G21, G22, G23, G28.

Introduction

Until the early 1990s, the question of financial oversight architecture was considered insignificant, that is, the institutional design was considered a deterministic - exogenous variable, or a completely random variable in the financial stability evaluation models. As only the banking institutions were subject to an organized scrutiny at that time, current discussions on topics related to the financial regulatory structures seem pointless (Masciandaro, Nieto and Quintyn, 2008). Since then, the development of financial markets, which has led to the growing importance of the insurance and securities sectors, has made the prudential oversight over non-bank financial intermediaries, as well as the dimension of consumer and investor protection supervision, quite relevant.

At the same time, the tectonic changes in the financial markets, which since the 1990s have been marked by a rapid transformation and restructuring as a result of the accelerated pace of consolidation in the financial industries and the consequent rise of financial conglomerates, have additionally impacted the evolution of the financial oversight architecture in various national economies at a global level.

Recent research within the field further highlights the importance of oversight architecture in addressing challenges faced by the finance sector, including the duration and depth of financial crises experienced nationally or globally. Furthermore, the aspect of the institutional set-up of financial supervision is nowadays increasingly associated with the effectiveness of financial oversight. In that respect (Calvo, Crisanto, Hohl, and Gutierrez,

2018) suggest that enhancing supervisory effectiveness may require certain institutional changes. Consequently, policymakers and financial regulators, are engaged in monitoring, evaluating, and reforming the financial oversight structures on an ongoing basis, aiming at a more effective and efficient attainment of the oversight goals.

At the EU level, the financial supervision structures in the member states have been subject to continuous reforms over the past two decades. This comes with the questions of the banking union, non-banking financial regulation, the rise in financial conglomeration, or with the ongoing globalization process.

In contrast to the dynamic pace of developments within this domain across the EU, at the Macedonian financial scene this question has not raised much of an attention, not least at the research level.

1. MODELS OF INSTITUTIONAL STRUCTURES OF FINANCIAL OVERSIGHT AND DEGREE OF INTEGRATION

The execution of the three basic financial oversight functions² can be organized by adopting different models of institutional structures of supervision.

The most commonly used taxonomy identifies three basic models of supervisory structures: (1) at a sectoral level (traditional model)³; (2) at a functional level (“twin peaks model”)⁴; and (3) on a unified basis (“mega

² According to the traditional taxonomy, financial supervision includes three basic functions: (1) macro-prudential function, which deals with systemically important financial institutions and the effects of their operation on financial markets, aiming to prevent or limit the shocks in the financial system that can negatively affect the real economy; (2) micro-prudential function, which focuses on the solvency of individual financial institutions to protect consumers of financial services (depositors, policy holders, other clients and creditors and investors of financial institutions); and (3) consumer protection from unfair practices of financial entities, i.e. from potential conflicts of interest between financial institutions and their clients. (Herring and Carmassi, 2008)

³ The sectoral model is based on separate regulators in charge of the oversight over each of the financial sectors. Supervision over banks is usually, although not always, carried out by central banks, which are in charge of both macro- and micro-prudential supervision, while supervision over insurance companies and securities companies is carried out by specialized single-sectoral regulators in charge of the micro-prudential regulation of these institutions. This sectoral separation of supervisory bodies has been prevailing in most highly industrialized nations until the 1990s, although it is still present in some countries today.

⁴ The “twin peaks” model envisages the integration of supervisory regulators for all three basic financial sectors along the line of supervisory functions, with a separate integrated regulator in charge of only the prudential supervision (macro-prudential and micro-prudential supervision), or only of consumer protection supervision, but not for both supervisory functions.

regulator”)⁵. (Herring and Carmassi, 2008).

Furthermore, the model of supervisory architecture and the degree of supervisory integration are two different dimensions of the institutional setting of financial supervision, although they may be correlated (Masciandaro, Nieto and Quintyn, 2008). In fact, the same model of supervisory structure can be designed with a different degree of supervisory integration.⁶

Despite the existence of different models and degrees of integration of supervisory structures, many researchers (Schoenmaker 2003; Quintyn et al 2007, as noted in Masciandaro, Nieto and Quintyn, 2008) believe that there is no single superior model of institutional set-up of the financial supervision. The available data and the practices indicate that each model - whether integrated or sectoral - has its advantages and disadvantages (Ravi, 2015). Various other authors (including Abrams and Taylor, 2002; Cihák and Podpiera, 2008) also suggest that there are no solid theoretical arguments in favor of any supervisory architecture since each model is associated with specific strengths and weaknesses.

Nevertheless, since the early 1990s, more than 30 countries from around the world have formed a unified financial regulator. This trend of supervisory integration is particularly pronounced in the period around the beginning of this century, i.e. twenty-three countries have established a single regulator in the last decade before 2006. (Herring and Carmassi 2008).⁷

⁵ The financial supervision is performed by an unified regulator, which is responsible for both micro-prudential and market conduct supervision, for all institutions and services in the financial markets. The macro-prudential supervision is, in principle, left to the central banks.

⁶ In the traditional, sectoral model, in which at least three separate regulators are responsible for supervising banks, investment companies, and insurance companies, more than one agency may oversee the same sector for executing different oversight functions. In the unified model, where the prudential supervision of the banking, insurance, and securities markets is fully integrated, some powers (such as consumer protection) may be shared with other authorities or may be separated in a separate regulatory body.

⁷ The first unified financial regulator was established in Singapore in 1984, followed by Norway (1986), Denmark (1988), and Sweden (1991). However, the most influential supervisory consolidation took place in the UK in 1997. London's role as a top international financial center suggests that supervisory initiatives undertaken in the UK reflect the interests of leading financial institutions and supervisors globally. According to De Luna Martinez & Rose (2003), the creation of a unified regulator (FSA) in the UK has had a significant impact on the dynamics of supervisory unification in many other developed and developing countries.

2. TREND OF SUPERVISORY INTEGRATION IN THE EU MEMBER STATES

Although experiences vary between countries, a universal trend of integration of supervisory powers has been evident across the EU member states (ECB, 2006). The last significant changes of national oversight structures, which in some cases presuppose a radical change in the oversight model, are noticeable in the period following the Global Financial Crisis (2007-2009). The crisis has revealed the need to strengthen the effectiveness of financial oversight and has given a new political impetus to several initiatives aimed at addressing the perceived weaknesses of the supervisory frameworks.

In some Member States, unified supervisors have been established as separate institutions outside the central banks, while in some cases the central bank acts as a unified supervisor. Other member states have adopted an integrated approach to institutional oversight set-up through the “twin peaks”-model.

According to the European Central Bank (2010), and the data shared by the Macedonian Insurance Supervision Agency, the individual member states have adopted the following oversight institutional structures:

As of 2018, the dominant model for financial supervision is the integrated model. It is represented in seventeen EU member states (Austria, Belgium, the United Kingdom, Germany, Denmark, Estonia, Ireland, Latvia, Lithuania, Malta, Poland, Slovakia, Finland, Hungary, Finland, the Czech Republic, and Sweden), either within the framework of the central bank or through a unified regulator outside the central bank.

At the same time, for the first time since 2000, some member states, which have previously had a unified regulator outside the central bank, have changed the oversight model by adopting the “twin peaks” model (Belgium and the United Kingdom), and in both cases, the prudential oversight has been assigned under the jurisdiction of the central bank (Schoenmaker and Veron, 2017). With these changes, the “twin peaks” model is represented in five member states (Belgium, the United Kingdom, Italy⁸, France and the Netherlands).

Five other countries (Bulgaria, Greece, Luxembourg, Romania, and Croatia), that have retained elements of the sectoral model, have introduced

⁸ In Italy, certain supervisory responsibilities are assigned according to the sector model. ECB (2010).

a partial integration of the oversight over some financial sectors: in Bulgaria, Croatia, and Romania, the non-banking supervisors are partially integrated outside the central bank, while the banking supervision is retained in the central bank; Greece has pursued an integration of the banking and the insurance supervision within the central bank; and Luxembourg has a single supervisory body responsible for overseeing banks and securities and a separate body for overseeing insurance companies, both located outside the central bank.

With the last structural reforms, the sectoral model in its basic form remains present only in three countries (Cyprus, Slovenia, and Spain) and, with some variations, in Portugal.

Central banks, to a various degree, have always had a role to play in financial supervision. The Global Financial Crisis seems to have contributed to further strengthen that role, with a tendency to form integrated supervisory bodies within the central banks. According to Masciandaro and Romelli (2015), this suggests a trend of “major shift”⁹ from the reforms of the national oversight structures implemented in the previous period, when there was a tendency to integrate prudential oversight into a unified regulator outside the central banks.

According to the ECB (2010), the experiences from the financial crisis highlight the information-related synergies between central banking and prudential supervisory function. The operational involvement of central banks in financial supervision proves to be particularly useful in times of crisis when the central bank’s direct access to information of individual financial institutions provides a comprehensive and realistic insight into their financial position.

Consequently, as of 2018, central banks have jurisdiction over financial supervision in nineteen EU member states (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, Portugal, Romania, Slovenia, Slovakia, Spain, and United Kingdom). In seven of these member states, new supervisory powers have been granted to central banks in the post-financial crisis period (Belgium, Britain, Germany, Greece, Ireland, Lithuania, and Portugal), in some cases through the adoption of the “twin peaks” model.

⁹ During the 1990s and early 2000s, the creation of financial supervisory bodies independent of the central banks was generally linked to the reputational failures of many central banks during banking crises (Masciandaro, 2006; Masciandaro and Quintyn, 2009).

Some of these reforms have revoked the changes made before the financial crisis. An example of such a case is the United Kingdom, where the supervisory failure of the independent unified regulator during the Global Financial Crisis has led to its dissolution in 2013, while its oversight powers have been granted to the newly formed supervisory body within the central bank. An example of similar changes is Hungary, (ECB, 2010).

3. DETERMINANTS OF SUPERVISORY ARCHITECTURES AND ARGUMENTS IN SUPPORT OF AN INTEGRATED SUPERVISION

Masciandaro (2006), points to several possible determinants of financial supervision architecture: (1) market aspect, (2) institutional aspect, (3) legal aspect, and (4) political and geographical aspect.

Namely, the choice of a specific model of supervisory architecture can be:

- a logical response to the challenges imposed by financial conglomeration, in which case the choice would be a unified regulator (market aspect);
- under the influence of the role of the central bank in the implementation of financial supervision (institutional aspect)¹⁰;
- dictated by constitutional and / or legal restrictions (legal aspect) or by the political system (political aspect);
- lastly, the choice of a certain model may be influenced by global or regional trends in “peer countries” (geographical aspect)¹¹.

The key factors that may explain the prevalence of a particular supervisory architecture are also subject of analysis by Melecky and Podpiera

¹⁰ According to the author, the degree of supervisory integration is inversely correlated with the involvement of the central bank in the implementation of financial supervision in the country, within the period of reforming the oversight system.

¹¹ Masciandaro & Romelli 2015, using econometric methods for analyzing groups of countries in terms of their geographical distance and trade relations, have provided evidence that highest probability for reforming the oversight structure is present in countries whose financial architecture is furthest away from the average of their “peer” group. Such results are in support of other literature that emphasize the importance of international convergence in the institutional design of financial oversight.

(2013)¹². According to the authors, the determinants of supervisory structures can be classified in four groups of indicators: (i) indicators of general and economic development of the country; (ii) political, and indicators of the quality of governance and autonomy of the central bank; (iii) indicators of the development of the financial sector, such as the depth and complexity of the financial system, including characteristics such as concentration, efficiency, profitability and liquidity; and (iv) the number of past financial crises in the national economy.

The results of this analysis show that:

(i) more developed, small open economies with better public governance have a greater tendency to integrate prudential oversight over the three basic financial sectors;

(ii) financially more developed countries are more prone to integrate the financial oversight, with the scope and characteristics of the banking sector - such as the aggregate liquidity exposure - increasing the likelihood of oversight integration, while more-developed non-banking financial sectors reduce the likelihood of oversight integration in the segment of prudential supervision, but not in the supervision of business conduct;

(iii) the lobbying power of a concentrated and highly profitable banking sector significantly complicates the integration of market conduct supervision;

(vi) the number and scope of previous financial crises in a given country relatively increase the likelihood of integration of the supervisory structure and

(v) greater independence of the central bank may result in less integration of prudential oversight, but not of business conduct oversight.

Barth et al (2013), also imply that the model of unified regulator is implemented in jurisdictions that are relatively small in terms of population or GDP.

Contrary to the conclusions reached by Melecky and Podpiera (2013), indicate that an integrated approach is applicable in countries with less developed markets. However, as it is a flexible approach, they conclude that it might be useful for countries with larger and complex markets.

Many authors have given their contribution in addressing the question of why certain countries have abandoned the traditional, sectoral model in favor of an integrated financial oversight (de Luna Martinez 2003; ECB, 2006, 2010; Herring and Carmassi, 2008; Masciandaro and Romelli 2015).

¹² The analysis was conducted on a sample of institutional structures for prudential supervision and market conduct supervision in 98 high and middle-income countries, over a period of one decade.

The most commonly posed arguments in favor of an oversight integration can be grouped into four main categories:

(1) Need to address the trend of financial globalization and the development of financial conglomerates. Namely, the rise in the number and systemic importance of the financial conglomerates for the national economies, have put the analysis of efficiency and applicability of the sectoral approach in financial supervision high on the policy agenda. Given the size of most conglomerates' vis a vis the national economies, the potential for macro-prudential challenges is significant,¹³

(2) Widening the focus of the regulatory action. Consistency in drafting regulation and supervision of the separate financial sectors is expected to reduce the potential of regulatory arbitration and insufficient coordination between the single-sector regulators, and to contribute to strengthened supervisory responsibility. This was widely experienced during the Global financial crises, particularly in financial systems where similar financial services are being administrated by financial institutions from several financial sectors simultaneously;

(3) Oversight efficiency. Expectations of reduced duplication of supervisory activities and maximization of economies of scale and scope in transmission and interpretation of market information are a strong argument for integrating the oversight services under one roof, although they are difficult to prove empirically.¹⁴ Similar are the expectations for reduction of costs for compliance and reporting by the financial market entities, which contributes to a more efficient use of resources in the overall financial system. At the same time, the consolidation of supervisory human capital is expected to increase supervisory efficiency by dedicating the most experienced experts to critical situations; and

(4) Need for more efficient monitoring of systemic risks, which is crucial for timely regulatory response to real or potential threats that may undermine the stability of the financial system.

The European Central Bank, in its 2006 review, points out to the creation

¹³ The German draft law for the establishment of the integrated regulator - BaFin, explicitly points out to the blurring lines between business activities of the different financial sectors as a factor for supervisory integration, emphasizing that "Banks, insurance companies and securities companies compete in the same markets for the same customers, with similar and often identical products, using same distribution channels".

¹⁴ Čihák and Podpiera 2006, for example, find no evidence that supervisory integration leads to a lower number of employees in the supervisory bodies in a way that it may affect the reduction of oversight costs.

of financial conglomerates, or the relatively small national financial markets, as the most frequently stated reasons for the integration of the supervisory bodies. However, the specific arguments and reasons for integration are numerous and vary between countries and periods observed.

4. INSTITUTIONAL STRUCTURE OF THE FINANCIAL SUPERVISION IN NORTH MACEDONIA – INSIGHTS

From the aspect of the institutional setting of the financial supervision, compared to the EU-27 member states, the Macedonian supervisory system is characterized by one of the most fragmented structures.

Three different financial regulators are responsible for overseeing financial institutions in the three main financial sectors: the National Bank of the Republic of North Macedonia is responsible for supervising banks, savings banks and other financial institutions; the Insurance Supervision Agency has jurisdiction over insurance companies and other entities in the insurance market (insurance brokerage firms, insurance companies, insurance brokers and agents, legal entities affiliated with insurance companies and the National Insurance Bureau); and the Securities and Exchange Commission is in charge of supervising the participants in the securities market. Also, two other public institutions are responsible for overseeing other financial entities, namely: The Ministry of Finance provides oversight of other financial companies and leasing companies, and the Agency for Supervision of Fully Funded Pension Insurance supervises the operations of pension companies, mandatory and voluntary pension funds, as well as foreign asset managers.

Such a fragmented architecture raises the questions of cost-efficiency of supervision; effective coordination among the regulatory bodies, particularly in light of effective oversight over the financial conglomeration trends; and the degree of supervisory independence, both from the political structures and from the financial industry. Following this idea, the rest of the paper will elaborate on possible solutions via an integrated model.

Namely, the issue of cost-efficiency stems from the high operating costs associated with a large number of supervisory bodies, which puts an additional burden on the financial industry. The cost-efficiency question is especially important to address given the relatively small and underdeveloped financial market and its scant growth. Namely, the analysis of the basic indicator of the share of the total financial sector's assets in the gross domestic product

(GDP), show that the financial intermediation in the country is still at a low level.¹⁵ The share of total assets of the financial sector in GDP in 2018 was 92.4% (2017: 89.8%), with banks participating with 76.2%, pension funds with 10%, insurance companies with 3, 2% and all other financial institutions, cumulatively, with 2.9%^{16, 17} (NBRNM 2019). In the same period, in the eurozone countries, the share of the financial sector in GDP was 630%.

The independence of the financial regulators is crucial for impartial and effective implementation of the oversight functions with the highest degree of professionalism and integrity and is equally important in respect to both, political actors and regulated market entities. The institutional set-up of the supervisory bodies and the regulation of issues such as the appointment of their governing and supervisory organs, adoption of financial plans, work programs, etc., are key aspects that determine their financial, operational, and political independence.

Considered separately, the fact that the non-banking regulators depend on the Parliamentary majority for electing their executive and supervisory organs, for approval of their annual financial plans and work programs, leaves a possibility for significant deviation of the de jure, from the de facto enjoyed independence of these regulators. The potential for operational dependence, on the other hand, stems from the potential external influences over their operational decision making in terms of controlling the employment processes and restricting the staff salaries, which can negatively affect internal reorganizations

¹⁵ Due to the multidimensional nature of financial systems, for a comprehensive assessment of the financial development of a national economy, it is necessary to analyze several important aspects of the financial sector in the country.

The IMF (2016b) and Čihák, M. et al. (2013) refer to four broad categories of indicators of financial development: the size of financial institutions and markets (financial depth); the degree of use of financial services by companies and individuals (access); stability of financial institutions and markets (stability) and ability of financial institutions to provide financial services at low cost and with a sustainable income, and level of activity of capital markets (efficiency).

¹⁶ The structural share of the banks in the total assets of the financial system is 82.5%. The participation of the other main segments of the financial industry is as follows: pension funds (10.8%), insurance companies (3.5%) and investment funds (1%). Other financial institutions, separately, participate in the total assets of the financial sector with less than 1% (NBRNM 2019).

¹⁷ In addition to the relatively small volume, the financial sector is also characterized by a relatively modest growth. In the period 2008-2018, banks have increased the size of their assets by 15.3% (2008: 60.9%, 2018: 76.2%), while all other financial institutions, cumulatively, have seen an increase of 5.7% (2008: 7.3%, 2018: 13%). The insurance sector's share in GDP, within this period, has grown by only 0.3% (2008: 2.9%, 2018: 3.2%). (NBRNM, 2009, 2019).

and processes of hiring and retaining the best staff in the respective agencies. Potential financial dependence, on the other hand, may result from the fact that the yearly budgets of some of these regulators are approved by the Parliament, even though they are financed by their respective industries' fees.

An additional significant issue arises from the challenges that such a fragmented structure may pose to effective supervisory coordination and cooperation at a cross-sectoral level. This is particularly important for conducting effective supervision over financial entities that are part of wider groups that, as a result of their complexity, high level of intra-group transactions, and complex internal relations can be a challenge for understanding and monitoring by the supervisory authorities.

The existing regulatory¹⁸ and oversight framework in the country does not provide mechanisms for monitoring the financial conglomeration. There is no system in place to ensure cross-sectoral exchange of information among the supervisory authorities for the primary identification of these complex financial groups and for monitoring the risks typically associated with them.¹⁹ At the same time, given that the financial entities are subject to licensing and supervision at a single-sector level, there is a risk that the supervisory authorities may not be able to understand the overall risk profile of a financial conglomerate, i.e. to ensure prudent assessment and insight into the specific risks present within the group as a whole.²⁰

An integrated approach to identifying, defining, and monitoring individual and group risks arising from the multi-sectoral nature of the financial conglomerates, and the transfer of risks among different market segments, is key to a timely regulatory response to real or potential threats that may jeopardize the solvency or the liquidity of the group, or of the financial system as a whole.

¹⁸ The legislation on financial conglomerates will be enforced from the day of the full membership of the country into the EU (Article 30, Law on supplementary supervision of the financial conglomerates, 2015).

¹⁹ Cross-agency cooperation is envisaged to be enabled through the so-called Cross-institutional body for financial stability, but this forum is still in the making. Further, the fact that systemic mechanisms for identifying and monitoring the operation of financial conglomerates have not been established, it may be assumed that the risks associated with their operation may not be one of the priorities of this body.

²⁰ This is especially since group risks are not always equal to the sum of the risks of the individual entities of the group, i.e. the group may have significant exposures that are not visible at an individual entity level. At the same time, the risks present in the separate business segments of a financial conglomerate are usually subject to interaction, correlation, and aggregation, including as a result of uncontrolled intra-group transactions, significant risk concentrations, or risk of contamination. (Ruzin, 2020).

Instead of Conclusion

For supervisory effectiveness, any institutional model can, in principle, be functional. After all, the economic theory and practice do not offer clear and solid arguments in favor of any supervisory architecture, that is, they do not point out to any unequivocally optimal solution. However, the effectiveness of the oversight is conditioned by a number of factors, including the adequate addressing of individual, group and systemic risks arising from financial conglomeration, the operational, financial and political independence of individual supervisory authorities, and the possibility to attract and retain the most professional staff, to continuously invest in their professional advancement and to use them on a cross-sectoral basis in the most critical situations. Effectiveness also depends on the success of cross-sectoral supervisory cooperation and coordination, especially in conditions of expected growing integration of the financial services.

The present or potential weaknesses and shortcomings related to the highly fragmented supervision indicate the need for an in-depth evaluation of the financial supervision architecture. Such an assessment should stimulate a substantive discussion among the relevant stakeholders about the need to reform the financial supervisory framework.

The discussions should also take into account the degree of convergence of the domestic institutional design of financial supervision with the regional and global trends, especially with the supervisory structures represented in the so-called “peer” countries. In the EU member states of the CEE Region, the single-sector oversight model is present in only one country (Slovenia). Partial integration of non-banking supervisory authorities is present in three countries (Croatia, Bulgaria, and Romania), while all other countries in this region have replaced the traditional sectoral model with an integrated model. Some of the integrated regulators are being located within the central banks (Czech Republic, Slovakia, Lithuania, and Hungary), and in some member states, the integration has resulted with a creation of an unified regulator outside the central banks (Latvia, Estonia, Austria, and Poland). With its classic, single-sectoral structure of financial oversight, the Republic of North Macedonia is far from the average of this peer group.

Overall, the potential reform of the system should be aimed at equalizing the application of prudential standards, improving the risk-based supervisory capacity of non-banking supervisory authorities, effectively addressing the trend of financial conglomeration, reducing the operational oversight costs in a

long-term, as well as ensuring an adequate level of cross-sectoral coordination and cooperation, which is vital for effective execution of the supervisory functions.

The ultimate goal of reforming the architecture of financial supervision is to ensure the long-term stability of the financial markets and the capital market, but above all, to stimulate their dynamic and continuous growth and development.

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**FINTECH - THREAT OR OPPORTUNITY?
THE CASE OF MACEDONIAN BANKS**

Abstract:

The aim of the paper is to examine the fintech impact on the Macedonian banking industry. We have reviewed the current situation and the perspectives for further development. According to the type of research this paper has a theoretical and empirical part. In the theoretical part we use the technique of analysis of relevant documentation, and in the empirical part we use data / results from relevant empirical research, which are directly related to this paper.

The results from the research show the process of adoption and utilization of fintech is already started on the Macedonian financial market, yet with an expansion at slight pace. Macedonian large banks are leaders in financial innovations, adopting their business strategies to the new digital era. However, the Macedonian banks will have to embrace fintech innovations to co-opt with the changed environment and consumers' changing needs. On other hand, adoption and implementation of European Union PSD 2 directive is needed, for encouraging non-financial banking institutions entering the market. The topic of this paper is contemporary and not sufficiently researched economically and methodologically. Thus, the conclusions of this paper will be a good basis for developing a methodological toolkit for future research.

Keywords: Fintech, Macedonian banks, opportunity, threat

JEL Classification: G21, G23, G28

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Introduction

The process of digitization is rising continuously during the last decade, facilitated by the growth of e-commerce - starting in the B2C and proceeding with the B2B model. It is of utmost importance to note that this process is simultaneously being developed with an impressive increase in the number of smart devices. Financial services, thanks to the development of this innovative market, can reach consumers using modern distribution channels. The 2017 Omni-Channel Shopper Study, published by Novantas (2019) found three major shifts in consumer behaviour that will impact banks distribution and sales strategies in the future period: i) significant shift from branch dependence to digital preference; ii) redefinition of the drivers of bank consideration and purchase; iii) increase in demand for digital account opening. Moreover, according to the findings in the research performed by International Integrated Reporting Council (2019) banks almost unanimously believe that innovation is a material matter that is critical to their strategy and long-term sustainability. Increased number of requirements and expectations from the customers cannot be fully met by incumbents, including the traditional commercial banks. According to EYGM Limited (2019) in order to successfully insulate themselves against the impacts of future downturns on financial performance and business continuity, banks must complete the transition from regulatory-driven transformation to innovation-led change. Due to the strong competition, achieving success in this area will not be easy, and all the involved parties (incumbent and new entrants) will have no choice, but to cooperate.

According to data provided by KPMG International (2019), 2018 was year when fintech investment hits multiple record highs. Namely, total investment in fintech globally reached 111.9 billion USD and total number of 2,196 deals.

The fintech industry has made financial services more accessible to citizens and the new way of operations was primarily represented by the non-banking financial institutions (NBFI), often called new players, new entrant etc. Davies et al. (2016) point out that few years ago, a group of seemingly modest start-ups called fintechs started to offer to consumers limited online lending or retail-payment services and they operated in the margins and didn't pose an obvious threat to established financial institutions, but today fintechs are rapidly entering the mainstream and some start-ups, like Lending Club, have become household names. Moreover, they argue that tech giant have also begun to involve in fintech.

The International Monetary Fund (2018) Bali fintech agenda, lays out key issues to consider how technological innovation is changing the provision of financial services with implications for economic efficiency and growth, financial stability, inclusion, and integrity. Consequently, more than ever, non-banking companies and tech giants are entering the financial services market. Fintech companies are flexible and capable to gain value from new technologies and transform it into new services that their customers require and expect. Therefore, fintech also has great potential for financial integration and counteracting financial exclusion. Fintech holds promise for being the latest disruptive technology, thus the banks, when developing such technologies, must consider the aspects of loss reporting, recording and provisioning in order to be consistent with modern regulations such as Basel III/IV, Solvency II and IFRS 9. The fintech creates opportunity for dynamic development of the entire financial market, but also numerous threats that can significantly affect its development.

In the beginning of 2018 year second Payment Services Directive (PSD2) was introduced. According to In and Jae (2018) PSD2 brings bright new age of open banking with new possibilities. The National Bank of the Republic of North Macedonia (NBRNM) in accordance with the global and European regulations encourages non-banking companies to provide banking products and services. The rationalization behind this is to increase the competition and offer more sophisticated, more efficient and more innovative banking products and services on the financial services market in the North Macedonia. Although, the NBRNM constantly strives to harmonies its regulations with those of the European Union, especially with the directives of ECB, PSD2 directive is not yet implemented in the Macedonian legislative.

The aim of this paper is to examine the impact of fintech on the banking sector in North Macedonia. This goal is achieved by examination of the views of the bankers regarding the opportunities and threats arising from fintech. We have analysed views expressed in the published interviews of senior banking officials of two of the group of four big banks in North Macedonia. The big banks are pioneers of innovations because of their large market share, quality human resources, offered different product and services and financial strength to cover the costs for implementing new technologies. Moreover, this group of four big banks has potential to overcome the risks that may arise, but even more important they can influence changes in the legal framework.

We examine the situation on the Macedonian fintech market by analysing the results of the NBRNM (2019a) survey regarding the perception of the banks

in North Macedonia on fintech activities and exposure to operational risk. We also comprise the point of view of customers of financial services based on data and results from the survey performed by Manasov and Ivanovska (2018) in order to examine the potential for fintech development.

The rest of this article is organized in a following manner. In Section 2, we present description of fintech and the types of services they offer. In Section 3 we examine the threats and opportunities for banking industry. Section 4 describes the level of development of the fintech in North Macedonia. The main conclusions and recommendations are presented in Section 5.

1. WHAT IS FINTECH

According to Chuen and Teo (2015), fintech refers to innovative financial services or products delivered via technology. Vasiljeva and Lukanova (2016) conclude that fintech introduces new working methods and approaches to standard processes, aims to enhance the customer experience and increase process efficiency at traditional financial institutions as well as re-design traditional services to become more personalized, transparent and accessible via digital channels, offering alternatives to traditional services provided by the financial industry. Dhar and Stein (2017) understand Fintech as financial sector innovations that facilitate disintermediation, address privacy, regulatory and law-enforcement challenges provide new gateways for entrepreneurship, and seed opportunities for inclusive growth. Chuen and Teo (2015) summarize that financial technology business models need to fulfil five important attributes: low margin, asset light, scalable, innovative and compliance easy in order to achieve the objective of creating a sustainable social business for financial inclusion. European Banking Federation (2017) states that the concept of financial technologies or “fintech” should be understood as finance enabled by or provided via new technologies, affecting the whole financial sector, what is in line with the definition proposed by the Financial Stability Board (2017) and the one proposed by the Bank for international settlement (2017).

According to PricewaterhouseCoopers (2015), fintech sector includes payments and currencies, software, platforms and data and analytics. In the segment of payments and currencies, technology is used for payment in new ways including payment systems such as PayPal or mobile payments such as M-pesa. The emerging technologies, such as block chain and cryptocurrencies, are also included in the segment of payments and currencies. Fintech software includes new processes designed to improve back and middle office making

them more effective. Online systems designed to allow users to perform a variety of functions and comparing products through aggregation such as peer-to-peer lending (Zopa, Lending club etc.) represent the segment of fintech platforms. Data and analytics segment is consisted of technologies (telematics, biometrics and compliance) which gather and/or analyses data in order to produce useful information's to improve business and target customer more effectively.

Previously, we discussed that investments in fintech are experiencing exponential growth and it raises the question of the main drivers of the fintech market growth. PricewaterhouseCoopers (2015) in their strategic report of fintech sector prepared for governance of States of Guernsey identify seven key drivers for this growth: i) high growth in e-commerce and significantly mobile commerce; ii) growth in emerging economies (Africa and Asia) where commerce aren't tied to traditional banking models; iii) new revenue models (e.g. pay per use, software as service); iv) traditional banking industry cost reduction and focus on core businesses; v) light touch regulatory requirements for many fintech providers; vi) highly scalable online business model, and vii) technology advances (e.g. cloud and virtualization). The International Monetary Fund and World bank group (2019) have similar point of view: i) fintech is having global impact on the provision of financial services; ii) almost all countries around the world have experienced rapid growth of fintech for greater financial inclusion; iii) important infrastructural gaps and regulatory impediments remain and significant gains are expected from fintech advances in payments, clearing, and settlement, and iv) gaps in the legal framework to address fintech issues are widely acknowledged, while there is a need to modernize data frameworks.

2. THREATS AND OPPORTUNITIES FOR FINANCIAL INSTITUTIONS FROM FINTECH

According to the KPMG (2017) survey, fintech is the biggest disruptor of our time for financial institutions as fifty-seven percent of the survey respondents ranked it as number one, ahead of growing global regulatory complexity (51 percent) and new business models (46 percent).

The fintech creates opportunity for dynamic development of the entire financial market by introducing more innovative, quality and efficient banking products and services offered at low prices. According to study report by A.T. Kearny (2015), the internet and mobile banking are becoming the main contact

points for customers as they value simplicity, transparency and convenience highly. At the same they argue that banks still have a strong position, and customers will prefer banks due to security reasons and antimoney - laundering aspects. Banks have access to real money and they own the infrastructure, so that fintech companies need to interact with banks or become banks themselves. Innovative block chain technology could be independent in theory, but there are still a lot of issues for its introduction in practice. However, fintech companies are presenting themselves as serious business opportunity for banks and other financial institutions. There could be a combination between a classical bank and a new fintech solution, their cooperation, in order to deliver the best to the client. King (2013) summarizes that banking is no longer a place you go, but something you do. He argues that banks need to be prepared to engage a customer wherever, whenever and however he is ready to talk, apply or buy, especially if customer go online and he is ready to apply for a product or service. Moreover, anytime a bank prejudices a sale opportunity by forcing a customer to use already established channel (print out an application form and send it or that the only way is to apply is to visit a branch or ring the call centre), bank creates friction and bank already lost the customer.

On other hand, there are also threats arising from fintech lack of regulation, big competition, risk arising from disruptive technologies, cyber-criminal etc. The debate on how to regulate innovation is often laden with prejudices and undue simplifications. Werbach (2017), from the Wharton School, identified three points regarding the regulations of new technologies: i) it is misunderstanding to assume that the online, digital world is inherently different from the offline world and that therefore we need a totally new set of rules; ii) they challenges the assumption that innovation needs an environment with no regulation to thrive; iii) the conscious choice by regulators of not imposing the full set of rules on a nascent technology can lead, as the technology gains pace, to a more mature and productive dialogue among innovative firms and regulators. Carmichael and Pomerleano (2002) emphasize that NBFIs provide services that are not well suited to banks by filling the gaps in financial services that otherwise occur in bank-based financial systems. They argue that NBFIs provide competition for banks in the provision of financial services and unbundle the services provided by banks and provide the components on a competitive basis. Moreover, they summarize that NBFIs specialize in particular sectors by target particular groups and overcome legal and tax impediments and they enjoy informational advantages arising from specialization. Aaron et al. (2017) conclude that

fintech might bring more change by creating new financial intermediation applications than by changing the ones that exist today. Negative side of the new financial technologies is emphasized in Foley et al. (2019) where they estimate that around \$76 billion of illegal activities per year are with bitcoin, which represent close to combined US and European markets for illegal drugs.

The following conclusion could be made: banks are going digital, keeping up with the changing environment. In this process, banks need to consider their existing infrastructure while developing completely new solutions and digitizing their services.

3. LEVEL OF DEVELOPMENT OF THE FINTECH IN REPUBLIC OF NORTH MACEDONIA

3.1. Macedonian fintech market

Accordingly, by the type of activities they perform, financial companies should be a kind of addition to the banks' credit activity, particularly for clients that have limited access to banks' loans due to the more conservative credit policies of the banks. The number of financial companies in 2018 amounted 22 (NBRNM, 2019b) with the total assets of 44,016 thousand EUR. The total claims based on approved loans increased 67.9% (11.9 mil EUR), and together with other products (letter of guaranty, factoring and credit cards), increased 48.1% (12.1 mil EUR) in 2018. The importance of the financial companies to the overall financial stability is jet very small since the total assets of financial companies in 2018 year represent only 0.4 of GDP.

Almost two thirds of domestic banks do not have any experience with fintech companies and even surprisingly, they do not have plans to establish any relationship in the near future (NBRNM, 2019a). Furthermore, the banks with some experience with fintech companies have a commercial partnership with them for launching new products or services. Large banks prefer to develop in-house fintech solutions without formal cooperation with external parties. The motives of the banks for formal partnership with fintech firms or develop their own solutions for usage of new technologies are: attracting new or maintaining the existing customers as well as cost savings. The banks mostly use or test: cloud services, usage of biometric properties for client identification purposes and using of big data analysis for credit scoring. Currently, the banks do not have experience neither with algorithms used for the purpose of investment advice or decisions nor with any DLT based solutions.

To understand the development issues of fintech in North Macedonia, we have analysed results of the survey (Manasov and Ivanovska, 2018) on the Macedonian banks' clients that indicate: (i) Most of the young clients and those with advanced technological clients would use products and services from non-banking and technological companies. The main reason for using banking services from non-banking and technological companies is lower interest rates and commissions, and 24/7 online access to products. Stability and security are the key characteristics due to which the users would stay loyal to banks; (ii) The clients would mostly use payments and funds transfer services by non-banking companies, yet they would not use loan and deposit products; (iii) The most of the clients trust the traditional banks, and have greater trust in technological companies when compared to the trust in the other non-banking companies.

3.2. Opportunities or treats from fintech

The perception of the bankers (Davchevski, 2018) is that penetration of fintech companies with their services is still at a low level in North Macedonia due to a number of reasons, most importantly the size of the market, customer readiness to use new digital services, legislation etc. However, he argues the new legislation that is expected to come into force will contribute to the inevitable cooperation with fintech companies, primarily for their flexibility, creativity and innovation. But on other hand he argues that today banks in North Macedonia are intensively focused on development new and innovative ways of banking that provide wider availability of products and services, but also simpler and faster access. He expects that in next five years, banks will continue to adapt to the new modern way of communicating with their customers and speed, developing their service convenience to a whole new level. On the question of cybercrime and user security, he argues that as the scope of digital services expands, the risk of digital space or "cyber" abuse is increasing but banks have extensive experience in the field of IT protection, due to the rigid local legislation. According to him, security is further enhanced by the deployment of a documented system for reporting and dealing with security incidents in the digital space, which provides rapid reporting and response mechanisms and fast and efficient exchange of information in this field is established among the representatives of the banking sector in Macedonia, the members of NLB Group, as well as with the national MKD-CIRT.

This point of view is also presented by Cherepnalkovska (2019). Her opinion is that the adoption of the PSD2 European Regulation and its mandatory implementation in January 2018 in the EU member states, enables the so-called “Open Banking” and that it is expected this regulation to be adopted in Republic of North Macedonia. Moreover, currently Komercijalna Banka AD Skopje is considering all the challenges and opportunities that Open Banking brings with it and will strive to use the opportunities to improve the services of its clients, both existing and new ones. Furthermore, she explains that the Komercijalna Banka AD Skopje continuously invests in cutting-edge technologies to improve existing ones and introduce new channels for the distribution of digital products and services and even offer to some existing clients’ use of API (Application Programming Interface) features developed by the Bank to access their data. But she emphasizes that the Bank has its own IT development team which prepare in a secure and fast way wide range of APIs for direct data access, customer accounts and transactions, under existing legislation.

According to the conclusion of the survey (Manasov and Ivanovska, 2018), the banks in North Macedonia are supposed to get prepared for the competition from nonbanking companies and the banks should cooperate with their competition when inventing creative and accessible products and services for the users, by way of using the new available technologies. Moreover, structural changes will occur in the financial services market in the North Macedonia, and these changes will be mostly beneficial for the users of these services, which will have the opportunity to use more innovative, quality and efficient banking products and services offered at low prices.

Conclusions:

For many years, banks have used similar and unchanging business models that yielded large profits. However, it turns out that these models are not so effective compared to innovations introduced to the market by technology companies that have successfully started their operation in the financial sector. Moreover, the pace of investment in fintech is reaching unprecedented levels. Thus, financial technologies force banks to verify their business models.

Admittedly, the financial technologies offer great opportunities for banks in terms of more innovative, quality and efficient banking products and services offered at low prices, but at the same time they open a room for new types of risks.

The aim of this paper is to evaluate the financial technologies situation and perspective on the Macedonian financial markets by analysing the views of the bankers and banks' clients on the Fintech. The analysis of the published interviews of bankers and of the results from the surveys provided by NBRNM (2019a) and by Manasov and Ivanovska (2018) indicate the following:

- The penetration of fintech companies with their services is still at a low level in North Macedonia due to the size of the market, customer readiness to use new digital services, legislation etc.
- The banks' cooperation with fintech companies is mostly in a form of commercial partnership with fintech firms for launching new products or services.
- Large banks are leaders in financial innovations, adopting their business strategies to the new digital era. The bankers are aware of the fintech impact on the risk-benefit balance.
- Younger clients and those with a good and advanced knowledge of technology would rather use products and services from non-banking and technological companies. The main reason for using services from non-banking and technological companies is a lower interest rates and commissions and a 24/7 online access to products.
- Trust, stability and security are the key characteristics due to which the users would stay loyal to banks, mostly in the area of payments and of funds transfer. On the contrary, the users would not use loan and deposit products provided by non-banking companies and tech giants.

The process of adoption and utilization of fintech is already started on the Macedonian financial market, yet with an expansion at slight pace. However, the Macedonian banks will have to change the way that they perceive new fintech companies and learn to embrace fintech innovations to co-opt with the changed environment and consumers' changing needs in order to keep their businesses and clients. On other hand new regulation, especially adoption and implementation of European Union PSD 2 directive is needed, for encouraging non-financial banking institutions entering the market. The relevance of financial innovation is significant for facilitation and support of trade, as prerogative for sustainable development of small open economies as Macedonian.

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**SELECTED KNOWLEDGE MANAGEMENT PRACTICES AND THE
RESULT IN INNOVATION ACTIVITIES CYCLE IN ENTERPRISES**

Abstract:

In a global interconnected world and interlinked enterprises, when the rapid technological development meets local knowledge within enterprises, tests one willingness and readiness on development and/or survival. Clearly human response within the enterprises on change lays in the centre of its readiness on change. This puts personal motivation to respond to a change high priority whenever change occurs. From the management point of view, the pressure and the challenges of a globally connected economy and the development and/or survival of enterprises lays on its constant readiness on change i.e. creating work environment that fosters positive motivation to change. Developing enterprise knowledge management framework on continuous development both on individual knowledge and knowledge of the enterprise, are linked with result in commercialization of new product/services/process. The frequency of the innovation cycle within enterprises shows different condition in engaging its resources in its ever-changing market. The focus is on enterprises' persistence on generating new products, incremental and/or radical products and services, as a result that arise from the interchange of new and existing knowledge within enterprises. This signifies, from management perspective, finding and maintaining the delicate balance of knowledge and knowledge flows in/and within the enterprise, thus finding balance strategy on creating own new knowledge in the enterprises and tracking outside knowledge and market needs by continually adapting

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incrementally the products, processes and services from the its portfolio that is required by users, customers, partners.

Key words: knowledge management practices, enterprise innovation cycle, new product introduction

JEL classification codes: D2/D22, D8/D83, E22, L2/L25, L26, M21, M031

Introduction

The purpose of this paper is to enlighten the elements that enable enterprises to apply appropriate knowledge management practices, as well as to enhance understanding of how these practices impact the persistence on development of new products and services in the form of successful enterprise innovations.

According to Schumpeter's description, innovative competitiveness is the engine of economic development and prosperity. New products and services increase the labour productivity of innovating enterprises by changing the distribution of labour nationally and internationally (Witt, 2016; Metcalfe et al. 2006). This paper focuses on terms of knowledge flow in the enterprise, i.e. the existence / exchange / creation of knowledge in the enterprise and the relation between knowledge management practices and the creation and application of new knowledge, i.e. how persistently the enterprise applies/uses knowledge in the form of radical, disruptive new or incremental, improved products/services or processes. This is shown by the results of the research (Pendevska, 2019) and applies both to products and services from the same enterprise, made independently with internal knowledge, and to products and services that result from external knowledge collaboration in the form of collaboration with the university, the user, and other enterprises. Knowledge is a value embedded in a product / service / process and stays in the enterprise and depending on how it is used further on, the intensity/persistence of the innovation activity within the enterprises is, whether the knowledge creation cycle stops with the realization of single product/service or continues through controlling and monitoring through the product life. Market needs are met using incremental or frugal changes, open new market with their radical and disruptive changes. The paper herewith is looking for answers to how persistently enterprises in the Republic of North Macedonia add new value

through their operation. The persistence of its innovation activities is reflected by the frequency of each innovation cycle performed within the enterprises in selected timeframe in which the innovation cycle occurs. The motivation on continuous learning or the persistence of using knowledge on individual and enterprises level is reflected by the frequency of usage of individual knowledge data and/or corporate knowledge pools.

I. THEORETICAL BACKGROUND

The purpose of this paper is to enlighten the elements that enable enterprises to apply appropriate knowledge management practices, as well as to enhance understanding of how these practices impact the persistence on development of new products and services in the form of successful enterprise innovations.

It is widely recognized that innovations have changed the way we live and continue to do so. Once fully recognized by economic science, in the last four decades, innovation has become the most intensively researched field in economics (Witt, 2016; Cohen, 2010) and management science (Witt, 2016; Damanpour and Aravind, 2012). These studies address how the innovation process itself works, how are they created and what strategic choices are there regarding innovative activities in the enterprise. The motivational aspects of the innovation process are then explored such as questions covered in empirical research below: How do individuals' and organization's knowledge emerge, disseminate, use it in their context? Then the economic benefits of innovation are explored, such as: What are the consequences for an enterprise when innovation is successful, how often does it happen? The enterprises with skilled workers that learn on every level within the enterprise, are able to create flexible enterprises that with joint effort are willing to invest in their mutual development. Technological progress drives automating and digitizing services and production. This pressures enterprises and its workers to compete in global markets to obtain meticulous efficiency and productivity. If they do not incorporate and adopt the high capability of continuous learning, as natural and most common human practice on adapting to changing environment, the competitiveness edge of their enterprises is simply lost, are left behind. This paper aims to enlighten some of the capabilities in terms of knowledge use and innovation within enterprises in order assist them work with the pressures of global challenges and change.

Creating environment that enables smooth transition and replacement of skilled workers is one strategy that can enable a competitive edge of the enterprise

by creating continuous knowledge exchange, building and strengthening the knowledge base and loosening the risk of knowledge lost when worker turnover happens. Creating environment that fosters individuals or groups to pursue new knowledge with their skill and overall knowledge along with their interaction integrates it throughout the enterprise knowledge base. The effort of their unique knowledge combination is what makes the difference of enterprises. Approaching and creation different knowledge structure marks enterprises readiness for further knowledge expansion. This is shown over certain a period of time and can be explained as why enterprises have different speed in developing appropriate solutions.

Employee knowledge can be explicit, easily recognizable and transmitted, both through personal contact and through other synchronic or asynchronic communication channels, such as through picture, audio and video, chart, sketch etc. text or table. It can also be tacit knowledge, unconscious knowledge. Both forms make the basis for the different faces of knowledge (learned theoretical and experiential knowledge) that is unique to every individual, and is different, some of it not conscious (if conscious, it could be transmitted), simply obtained by working on a particular activity or by pursuing particular interest.

Since knowledge has not a value, if it is not used, the key motivation is how and how often knowledge within enterprises is used in building new value for the enterprise.

Knowledge can enter from various sources; every effort to add value is welcomed. Self-engagement and willingness to acquire exchange and re-apply knowledge is becoming crucial capability at the individual and organizational level.

As long as the enterprise nurtures its persistence in innovation activities, new knowledge, an idea/solution, the likelihood of new product / service / process occurring, and the knowledge of how it is achieved, even if it is discarded and isolated, brings value for the enterprise, the knowledge how to get there remains in the enterprise and can be used for a new cycle of innovation.

1.1. Customized Knowledge Management Cycle Model

Knowledge management methods are used to enable the enterprise to utilize and develop employee knowledge in a rational and complete way simultaneously. Knowledge management comes as a goal and does not mean only knowledge production, but as a goal-oriented use and development of

knowledge and skills that improve the performance of the organization, in order one becomes more competitive, efficient, and innovative.

Nonaka and Takeuchi (1995) emphasize the difference, departing from the traditional definition of knowledge as “justified true belief”, by defining knowledge as “a dynamic process of man towards justified personal belief about “the truth “. (Nonaka and Takeuchi, 1995) According to them, in order to produce new knowledge / innovation, it is necessary to enable knowledge creation beforehand. For them, organizational knowledge creation is “the ability of the company” as a whole to create new knowledge, to spread it too through the organization to incorporate it into its products, services and systems” (Nonaka and Takeuchi, 1995) and explain it through their dynamic “spiral of knowledge concept”.

By integrating the LH cycles outlined in the Heisig (2009) reviews one can make a simple, practical and comprehensive LH cycle model. Building on the Evans and Ali’s (Evans, Max, Kimiz Dalkir, and Catalin Bidian, 2014) Lifecycle Model, the Knowledge Management Cycle (KMC) is advanced and consists of 7 phases: 1. to identify, 2. to preserve, 3. to share, 4. to use, 5. to learn, 6. improve and 7. Create new knowledge here modified into Innovate.

1.2. Innovation activities in enterprises

Management literature discusses innovative activities as a key strategy for gaining competitive advantage and generating sustainable profits. In rare breakthrough cases innovation have created new market by using technological progress to meet new needs. The case when one offer solutions to problems that were not previously sufficiently resolved through incremental or radical changes. In most cases usually the demand for innovation is simply due to lowering costs, better quality and / or more favorable supply conditions. The ways in which innovation is disseminated and endorsed by users are explained in more detail through the existence of 5 defined user groups adopting innovation (Rogers, 1995).

Knowledge related to innovation activities is analyzed in terms of how innovations arise, how they are created and how knowledge can be organized to influence innovation activities. Innovation, like knowledge creation, is a reflection of new cognitive concepts that arise when inventors, researchers, builders, or entrepreneurs (re-)combine it most often through teamwork, social interaction, and already existing cognitive concepts that acquire new knowledge, and may bring new meaning.

For many organizations, competitive advantage remains with a very short life span, and therefore companies are forced to focus on the continuous development of new competitive advantages (Heij, 2015; Giesen, Riddleberger, Christner, Bell, 2010; McGrath, 2013; Volberda et al., 2011).

That means the pressure on product lifecycle development is getting shorter, technologies and industries are approaching, increasing numbers of low-cost competitors and customers are not permanent, or are becoming increasingly sensitive to changes in the environment, priorities in dramatic and rapid changes in the economy (Heij, 2015; Govindarajan and Trimble, 2005; Smith, Binns, Tushman, 2010; Teece, 2007). These trends are changing the competitive game: making it even harder for companies to differentiate (Heij, 2015; Casadesus-Masanell and Ricart, 2010; Prahalad and Ramaswamy, 2004) and this can severely reduce their “life expectancy” (Heij, 2015; Casadesus-Masanell and Ricart, 2011).

These changes become more massive and occur more frequently and abruptly, unpredictably (in Heij, 2015; Giesen et al., 2010; Smith et al., 2010). Past enterprise success no longer guarantees success today (Heij, 2015; Venkatraman and Henderson, 2008; Teece, 2010), nor does success today guarantee future success (Heij, 2015; Govindarajan and Trimble, 2011). The strength of the enterprise becomes the strength and flexibility of the weakest link in the business chain.

Below are selected results of key knowledge management practices that enable the emergence of an innovative activities within the enterprises.

1.3. Commercialisation of knowledge creation -innovation

Usually, for innovations to be realised, there are previous causes and consequences of new concepts and they certainly do not occur immediately. They are discovered in the process of trial and error, elimination of error, re-examination of concepts, which can take years and are regularly associated with a need for increasing the knowledge base. (Witt, 2016)

Technological, Product and Process (TPP) innovation activities in the innovation cycle represent all the scientific, technological, organizational, financial and commercial steps that are actually taken to bring about the implementation of technologically new or improved products and processes. Some are highly innovative; others are not so new but needed for realization (OECD, 2005).

The Oslo Manual (OECD, 2005) defines innovative activities based on

two concepts / approaches subjective and objective: an innovative enterprise and an innovative activity. According to the subjective approach, an innovative enterprise is an organization that has realized at least one innovation whether it be product, technology, marketing or process and organization and their combination (OECD, 2005).

According to the objective approach, the enterprise can have innovative activities without any innovation. All innovative activities can be classified into three categories:

1. "Successful with the result of realizing innovation (although this innovation may also be commercially unsuccessful).
2. In progress, work in progress that has not yet resulted in the realization of innovation.
3. Abandoned before the realization of innovation" (OECD, 2005).

The survey undertaken includes innovative activities in enterprises under the previous three categories. Below are the selected samples of the research questions, which are included for measuring the innovative activities of the first category.

2. RESEARCH METHODOLOGY

Survey method is aimed to obtain primary data from the employees of the selected enterprises with their perception of business practices regarding Knowledge Management Practices and Innovation activities in their respective field of work and enterprises. The knowledge management practices measurement has been analysed using the adapted model of Knowledge management from Fraunhofer IPK (2011) the adaptation including the indicators for organisational learning. The innovation activities measurement is used by the instrument from the Oslo Manual (OECD, 2005) where they are defined based on two concepts: subjective and objective, i.e. innovation enterprise and innovative activity.

The primary data obtained are processed and analysed using appropriate statistical methods, such as:

- Method of descriptive analysis - in order to determine the individual demographic and contextual determinants in the enterprises; here this is used as description of the condition and identification of the key parameters in the knowledge management practices and innovation within enterprises

- Method of Chi Square test, as a method that is used for testing the relation between certain practices of knowledge management and the level of innovation in the enterprises through testing. This is realized by using statistical tool SPSS.

The research data is collected and analysed from enterprise employees, which in the period under study have introduced an innovative product / service / process and was conducted in the period from June to December 2017 within selected enterprises (in total 38). Enterprise representatives were contacted and notified by the author via personal contact, telephone or email in addition to a written notice of the purpose of the work. An electronic link was then sent to the firms and / or respondents to the questionnaire created for this survey. Each respondent answered the questions to the best of their knowledge and experience working within the respective company.

Total number of respondents who completed the questionnaire is 176, whereas 165 responds were complete or 93.75% of the respondents.

3. EMPIRICAL SURVEY AND FINDINGS

More general approach is applied in order to obtain as much as possible information from the employees of the contacted enterprises that were participating in this research, based on selected key thesis questions, selected from Oslo Manual (OECD, 2005), and made adjustments to obtain as relevant and qualitative data as possible from the participants.

3.1. The time frame using knowledge management infrastructure within the enterprise

The given time frame below defines the frequency of using knowledge base of the enterprise by employees.

When an information is needed/requested, if it is useful and one saves it for further use. It is measured whether the current knowledge data base in the enterprises is used on personal level. This means does knowledge on personal level to use certain parameters exist/is used, which help determine where and how to find stored/needed information, so that one can find it quickly when is needed. If the enterprise has structured knowledge base that is used by employees, enables the frequency of the usage and here is defined by the speed of the inquiry of the needed information. In fact, a time frame for searching

the information needed as a parameter for establishing the regularity of the procedure. That is, one who has tendency on regular usage the built data storage / structuring scheme / system within enterprise will quickly find it. Here one can see whether such a system exists on an organizational level. The faster the information is retrieved; it is a sign that a certain system / pattern exists.

This provides a response at a firmly established or expected time interval (approx: <5 min, 5-15 min, up to 30 min, and over 30 min ...) for a clearer analysis of the data. If the retrieval of the required data and information from organizational data base computer or shared files or databases is rapid, it indicates the likely existence of an individually or organizationally defined data / information management system and a systematic knowledge use of technical and operational infrastructure. How quickly knowledge is found indicates that it is regularly used, both on an individual and organizational level.

Table 1: The time for finding information from a respected data base in the organisation

V.	How long does it take for me to find the information I need from a shared file in the organization?	Number of respondents	%
1	5 minutes	53	31.52%
2	5-15 minutes	77	46.67%
3	up to 30 minutes	32	19.39%
4	longer than 30	4	2.42%

Source: Based on primary data collected by the questionnaires conducted by the author, 2019.

These results show that established organizational practices, accessibility and frequency of structured information are clear to the ones that need them and are easily accessible on the enterprise level and are regularly used.

3.2. Measuring innovative business activity

As we try to measure a particular innovation activity, an objective approach is chosen (OECD, 2005), i.e., to collect selected data on an innovative activity in an enterprise.

According to the previous definition, the selected questions should answer:

1. Time frame on introducing new products by respective enterprise

This criterion tracks the frequency of innovation activities in the enterprise used, often introducing new products. This parameter is signalling regular proactive knowledge base, i.e. up to date technological infrastructure with respective solutions, monitoring competition, market trends and needs of consumers, suppliers, partners. High frequency indicates that the company is actively working to secure or develop its market share, past efforts and likely fostering trends on future activities.

To get initial information on enterprise innovation activities, respondents complete the following basic company information and innovative product or services.

Table 2: The time frame on innovation cycle given by introducing new products in respected enterprises

XX	How often do you introduce new product/ service/process?	Number of respondents	%
1	Less than 1 year	80	48.48
2	Less than 3 year	54	32.73
3	Less than 5 year	18	10.91
4	None	13	7.88

Source: Based on primary data collected by the questionnaires conducted by the author, 2019

This clearly indicates the high frequency within enterprises of introduction of new products, which signifies an established infrastructure for recognizing and implementing a new idea, new knowledge and appropriate creation and commercialization of new products. It also indicates dynamic operation of enterprises, established and active use of infrastructure in the processes of knowledge management and product commercialization, proactive to meet market needs.

The impression of these responses is that enterprises operate in a dynamic market environment, actively following the indicators and requirements of their market respectively.

Conclusion:

Knowledge management practices in enterprises are created to be used. Their purpose is the knowledge within the enterprise, as well the one in and out of the enterprise environment to be captured and utilized as much as possible. Applying diverse strategies, it enables the enterprise different ways to utilize it, expanding the idea that there should be different incentives that comply with the organisation in order to capture as much as possible all forms of knowledge the enterprise needs. Thus, having the perspective that knowledge resides in different forms (tacit/implicit/explicit) and can be extracted using different media, meaning having the point of using it for increasing the benefit of the enterprise. For enterprises this dimension of knowledge is especially critical for their survival and further development that is, capturing as much as possible of the knowledge of their employees, needs of their customers, stakeholders incorporating it with existing ones or outside them into new enterprise products / services.

The second part of the questionnaire explores various parameters for the existence of innovative activities in the enterprise, ie commercialization of new knowledge of the enterprise. It actually researches the enterprises, and how one is using their internal (and external) knowledge in innovative activity.

In management literature, innovative activities are elaborated as the main strategy for gaining competitive advantage and generating sustainable profits. The criterion for positive evaluation of innovation and its effects is based on the innovations that pass the market test successfully, but there is also much lesson learned from unsuccessful ones. So, the persistence of doing this effort, shown in the high frequency of introducing new product/service/process is confirmation of the enterprise fit condition on using knowledge management practices in order to boost its innovation capabilities. The research results obtained from this inquiry confirm both.

Main challenge, of course, is to create conditions within the enterprise for long-term sustainable efforts for innovative activities.

Finally, conclusion arising from the empirical research on knowledge management practices shows fair and frequent usage and their impact is high in the frequency of introducing new knowledge in the form of new products / services / processes in enterprises in the Republic of North Macedonia. The results show that strategies to obtain and further develop knowledge base have substantial practical value to enterprises in Republic of North Macedonia in order to sustain and/or enhance their ability to perform successful innovation cycles.

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(Original scientific paper)

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THE RELATIONSHIP BETWEEN EFFECTIVE LEADERSHIP AND THE PERFORMANCE OF EMPLOYEES

Abstract

The goal of every organization is not only to survive, but also to maintain its existence by improving the performance. In order to meet the needs of competitive markets, organizations must constantly increase efficiency. Leadership, in organizations, means the ability to define the goals and tasks of the organization, develop a strategy and develop a plan for achieving these goals. The literature suggests that the role of leadership is very important for achieving the efficiency of organizations. The achievement in the domain of the functioning of the leadership and its role in improving the performance of the employees in the enterprises in the Polog region in this paper will be observed in several sequences, beginning with the identification of the basis and the need for its establishment, by tracking its evolutionary development and achievement at the current level, to the benefits of its existence and application.

Keywords: leadership, performance management, employees, managers, Polog region

JEL Classification: O15, M00, M14

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Introduction

There is a popular belief that leadership is the most studied but least understood concept in business. Leadership is working with people to do new things in a world that is increasingly complex and changing rapidly. Leadership, as we will continue to elaborate throughout this paper, is a very discussed topic and had been discussed from a large number of scientists but even the greatest leader or scientist has not found the formula for what it takes to develop effective leadership. The main role of leadership is to set a new direction and get people in that direction. A leader is a person that others want to follow. If you want people to follow you, you have to earn their trust and respect.

The concept of performance management is one of the most important and positive developments in the field of human resource management in recent years. The phrase was first coined by Beer and Ruh in 1976. But it has not been recognized as a distinctive approach until the mid-1980s, thinking it was needed after a continuous and integrated approach to performance management.²

1. DEFINING LEADERSHIP AND PERFORMANCE MANAGEMENT

It is said that there are almost as many definitions of leadership as there are people - authors who have tried to define it.³ There is no widely accepted definition of leadership, nor is there a consensus on how best to develop leaders and leadership, and incredibly little evidence of the impact or development of leadership on organizational performance. Researchers usually define leadership according to their individual perspectives and aspects of the phenomenon of greatest interest to them. As much as in the field of leadership studies, the question of leadership, development and its impact remains highly controversial.⁴

The following are examples of leadership definitions from some well-known scientists and leaders in the field of leadership.

² Armstrong, M. Performance Management Key strategies and practical guidelines. Second edition, 2000 p.1

³ Stogdill, R. M. Handbook of Leadership: A Survey of Theory and Research. New York: The Free Press. 1974, p. 7

⁴ Bolden R. & Kirk P. From 'Leaders' To 'Leadership' Published in 'Effective Executive', ICFAI Publications, October 2006. p. 1

- According to Gardner et al. leadership is a complex, multi-level and socially constructed process.⁵
- According to Northouse, P. G. We can simply define leadership as “a process in which an individual influences a group of individuals to achieve a common goal.”⁶
- Hemphill and Coons define leadership as the behavior of an individual who directs the activities of a group toward a common goal.⁷
- According to Jacobs, “leadership is an interaction between persons in which one presents information of a sort and in such a manner that the other becomes convinced that his outcomes will be improved if he behaves in the manner suggested or desired”⁸
- According to Gary Yukl, leadership is the process of influencing others to understand and agree on what needs to be done and how to do it, and the process of facilitating individual and collective efforts to achieve common goals.⁹

As can be seen from the definitions of many authors, most definitions reflect the assumption that leadership involves a process in which a person influences other people to lead, structure, and facilitate group and organization activities and relationships.

Leadership captures the essence of being able to inspire others and being prepared to do so. Leadership is the art of motivating a group of people to act towards achieving a common goal. In a business environment, this can mean guiding employees and colleagues with a strategy to meet the company’s needs.

Performance management, of course, is about performance. But what is meant by that word? It is important to clarify what this means, because if performance cannot be defined, it cannot be measured or managed. Bates and

⁵ Gardner, W. L., Lowe, K. B., Moss, T. W., Mahoney, K. T., & Cogliser, C. C. *Scholarly leadership of the study of leadership: A review of The Leadership Quarterly’s second decade, 2000–2009*. *The Leadership Quarterly* 21(6), 2010. pp. 922–58.

⁶ Northouse, P. G. *Leadership: Theory and Practice*, 5th edn. Thousand Oaks, CA: Sage Publications. 2010, p.3

⁷ Hemphill and Coons (1957:7) cited from George F. Harris ‘*Leadership and supervision in the informal organization*’, June, 1973 No. 665-73.

⁸ Jacobs T.O. *Leadership and exchange in formal organizations*. Alexandria, VAS: Human Recourses Research Organizations, 1970. p. 232.

⁹ Yukl, G. *Leadership in organizations* (6th Ed.). Upper Saddle River, NJ: Pearson-Prentice Hall, 2006 p.8.

Holton¹⁰ point out that performance is a multidimensional construction, the measurement of which varies depending on various factors. They also state that it is important to determine whether the purpose of the measurement is to assess performance or behavior. There are different views on what performance is. It can simply be considered as a record of the results achieved, while on an individual basis, it is a record of a person's achievements. Kane¹¹ argues that performance is something that man leaves behind and that exists regardless of purpose. Bernadin et. al¹² thinks performance should be defined as job outcomes because they provide a stronger link to the organization's strategic goals, customer satisfaction, and economic contributions.

Performance management is based on agreeing goals, knowledge, skills and abilities (competence), improving performance and personal development plans. It includes a joint and continuous review of performance in relation to these objectives, requirements and plans and agreement and implementation of improvement and plans for further development.

2. THE ROLE OF LEADERSHIP IN IMPROVING THE ORGANIZATIONAL PERFORMANCE OF EMPLOYEES

Every employee, from the top to the bottom of the organization, is subject to performance management even if it is not necessarily a formal process. Human capital is the primary and most important resource of the company, but at the same time the most complex. Without its employees, no company can operate on a profitable basis.

Performance management is a process of: managing and supporting employees to work as efficiently and effectively as possible in accordance with the needs of the organization¹³. Performance management within an organization faces defining, measuring, and encouraging employee

¹⁰ Bates, R A and Holton, E F. *Computerized performance monitoring: are view of human resource issues*. Human Resource Management Review, Winter,1995, p. 267:88

¹¹ Kane, J S. *The conceptualization and representation of total performance effectiveness*. Human Resource Management Review, summer. 1966, pp123:45

¹² Bernadin, H K, Kane, J S, Ross, S, Spina, J D and Johnson, D L. Performance appraisal design, development and implementation, in (Eds) G RFerris, S D Rosen, and D J Barnum, *Handbook of Human Resource Management*, Blackwell, Cambridge, 1995, Mass, 1995, as cited in Armstrong. M. *Armstrong's Handbook of Performance Management: an evidence - based guide to delivering high performance*, 2009, p.31

¹³ Walters, M. *The Performance Management Handbook*, Institute of Personnel and Development, London, 1995. p. 3

performance with the sole purpose of improving organizational performance. This process has become very important within organizations and is seen as an integrated process in which managers work with their employees to set expectations, measure and review results, reward and improve employee performance, with a single goal. positively affect the success of the whole organization.¹⁴

It is argued that effective leadership has a positive impact on the performance of organizations (Maritz,1995; Bass, 1997; Charlton, 2000).¹⁵ Behling and McFillen (1996)¹⁶ reaffirmed the link between high performance and leadership in the United States by developing a model of Charismatic / Transformational Leadership, where leaders' behavior is said to inspire, intimidate, respect and empower their subordinates, resulting in extremely high effort high commitment and willingness to take risks. Numerous empirical evidence has shown that leadership behavior affects organizational performance that strong leaders outperform weak leaders, and that transformational leadership generates higher performance than transactional leadership.¹⁷ Kieu (2010)¹⁸ stressed that transformational leadership is positive and significant in terms of organizational performance based on 151 companies in the IT industry. From a correlative and regression analysis conducted in a study in Singapore¹⁹, where the relationship between transformational, transactional, laissez faire leadership and employee performance was measured, leadership has been positively linked to employee performance, to transformational leadership behavior, and to the behavior of transactional contingents in a leadership award.

¹⁴ Д-р. Ирена А. & Д-р Васил П. *Менаџмент на перформанси*. Скопје. 2015, p. 49

¹⁵ Maritz,1995; Bass, 1997; Charlton, 2000 as cited in Durga Devi Pradeep, N.R.V. Prabhu, *The Relationship between Effective Leadership and Employee Performance*. 2011 International Conference on Advancements in Information Technology with workshop of ICBMG 2011IPCSIT vol.20 (2011) © (2011) IACSIT Press, Singapore

¹⁶ Behling, O. and Mcfillen, J. "A Syncretical Model Charismatic or Transformational Leadership," *Group and Organisation Management*, Vol.21, No. 2, 1996, pp. 120-160.

¹⁷ Burns 1978, Bass 1990, Hater and Bass 1988, Howell and Avolio 1993 as cited in Durga Devi Pradeep N.R.V. Prabhu, *The Relationship between Effective Leadership and Employee Performance*. 2011 International Conference on Advancements in Information Technology with workshop of ICBMG 2011IPCSIT vol.20 (2011) © (2011) IACSIT Press, Singapore

¹⁸ Kieu, H. Q. *Leadership Styles and Organizational Performance: A Predictive Analysis*: ERIC, 2010

¹⁹ Durga Devi Pradeep, N.R.V. Prabhu, *The Relationship between Effective Leadership and Employee Performance*. 2011 International Conference on Advancements in Information Technology with workshop of ICBMG 2011IPCSIT vol.20 (2011) © (2011) IACSIT Press, Singapore

3. ANALYSIS AND INTERPRETATION OF RESULTS

This research was conducted in the Polog region where a total of 200 employees and 32 managers were surveyed in 32 small, medium and large companies. The questionnaires submitted to them were of two types, so that one was intended for managers with a total of 46 questions and the other for employees with 38 questions.

In general, the Polog region is known for its private initiatives and business achievements that contribute to economic development and social welfare in the country.

The questionnaires were voluntarily filled out by employees and managers and were given anonymity.

The analysis of the research sample includes the graphic representations presented in several categories, as follows:

- issues related to: gender, age, education, work experience in the organization;
- issues related to the organization in terms of the number of employees, years of existence, area in which it operates, etc;
- leadership style issues;
- performance issues, etc.

Table 1. Demographic attributes of the respondents

Variable	Managers Frequency	Managers Percent	Employees Frequency	Employees Percent
Gender	Male = 28 Female = 4	87% 13%	Male = 97 Female = 103	48.5% 51.5%
Age	18-23 = 1 24-30 = 7 31-37 = 13 38-45 = 4 46-55 = 7 56-64 = 0	3 22 41 12 22 0	18-23 = 16 24-30 = 69 31-37 = 68 38-45 = 32 46-55 = 12 56-64 = 3	8.0 34.5 34.0 16.0 6.0 1.5
Education	Elementary = 0 Secondary = 5 High education = 23 Master studies = 4 Doctoral studies = 0	0 16 72 12 0	Elementary = 2 Secondary = 44 High education = 89 Master studies = 62 Doctoral studies = 3	1.0 22.0 44.5 31.0 1.5

Work experience	Less than 1 year = 0 1-5 = 3 6-15 = 19 More than 15 years' work experience = 10	0 10 59 31	Less than 1 year = 10 1-5 = 77 6-15 = 88 More than 15 years' work experience = 25	5.0 38.5 44.0 12.5
Number of employees	1-9 = 10 10-19 = 6 20-49 = 10 50-249 = 6 250+ = 0	31 19 31 19 0	/	/
Years of existence	1-5 5-15 15-25 More than 25 years	12 22 44 22	/	/

Source: Own research

Table 2. Cronbach's Alpha - Managers

Reliability Statistics	
Cronbach's Alpha	N of Items
.786	46

Table 3. Cronbach's Alpha - Employees

Reliability Statistics	
Cronbach's Alpha	N of Items
.867	38

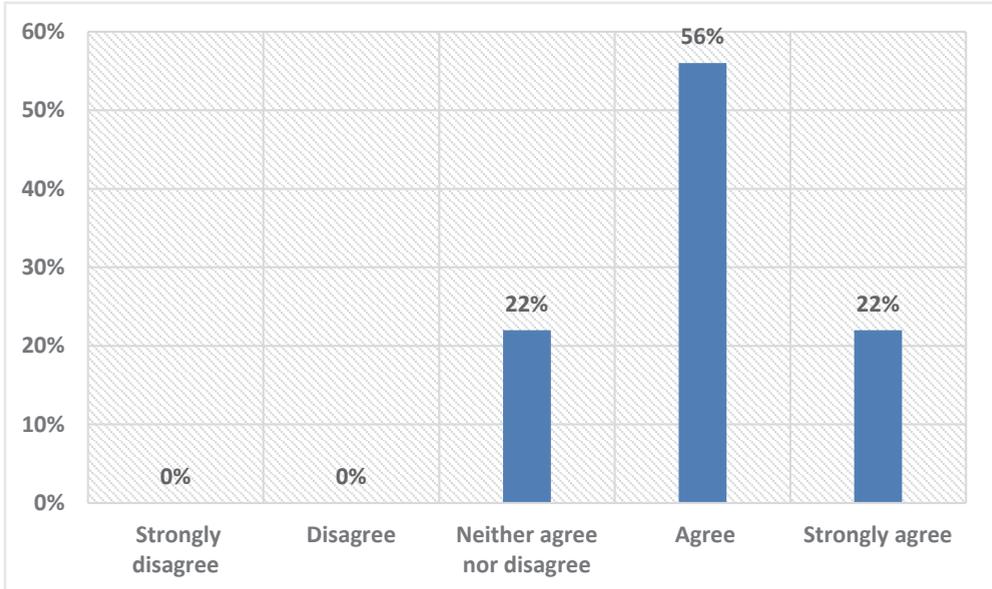
Source: Adapted by the author according to the data obtained from the questionnaires

Cronbach's Alpha (Table 2 & 3) is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale. The alpha coefficient for 46 items (Table 2) is 0.786 and 38 items (Table 3) (questions) is 0.867, which indicates that the items have a relatively high internal consistency. (A safety factor of 0.70 or more is considered "acceptable" in most social science research situations.)

Current charts present the questions-dilemmas that were submitted to managers.

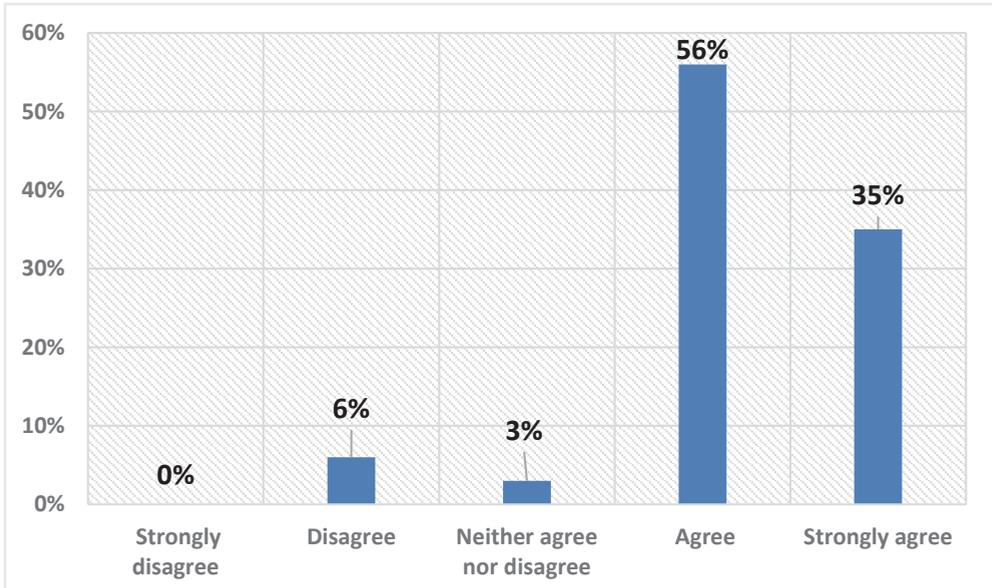
Chart 1 presents the results of the question *I believe that as a leader the employee's performance in our organization are correctly evaluated*, where the following results are obtained: 22% of managers strongly agree, 22% are neutral and 56% of managers agree, which means that out of the total number of managers, 79% of the managers agree that they evaluate the performance of the employees correctly.

Chart 1. I believe that as a leader the employee's performance in our organization are correctly evaluated



Source: Own research

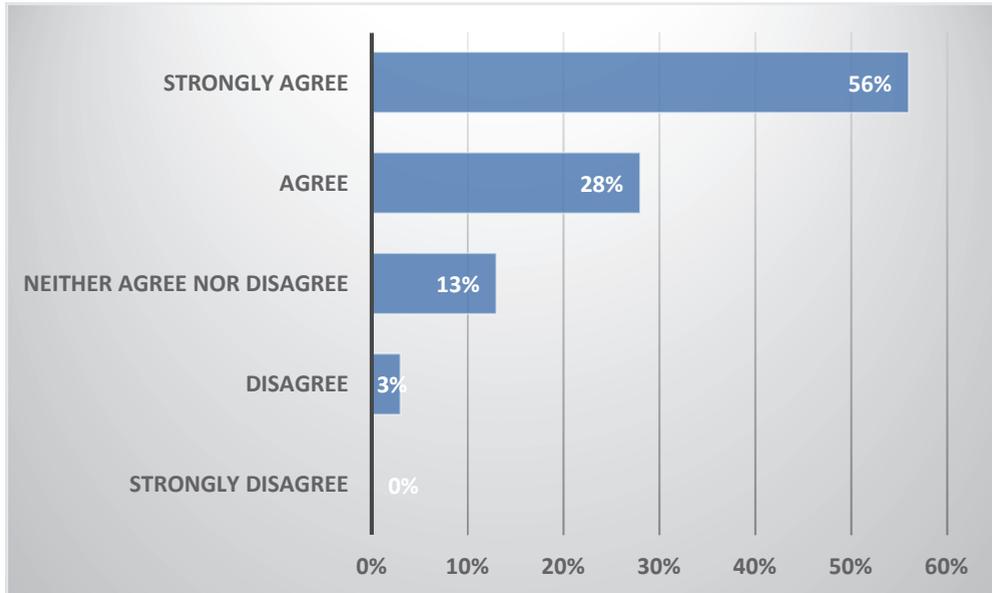
Chart 2. Our organization uses a participative leadership style - consulting with subordinates about decisions in order to improve performance.



Source: Own research

The chart 2 presents the results of the question *Our organization uses participative leadership style - consulting with subordinates about decisions in order to improve performance* and the following results are obtained: 0% of respondents strongly disagree, 6 disagree %, neutral 3%, agree 56% and strongly agree 35% of managers.

Chart 3. I believe that by developing my leadership skills, the performance will increase dramatically.



Source: Own research

Chart 3 shows the following results: 0% strongly disagree that by developing leadership skills the performance will dramatically increase, 3% disagree, 13% are neutral, 28% agree and 56% strongly agree.

Correlation analysis as a statistical method was used to evaluate the strength of relationship between two quantitative variables leadership - leadership styles and performance. A correlation analyses was done in order to determine whether there is a quantitative agreement between the variations of the observed phenomena and if there is in what degree or intensity. The results from managers are as follow:

- Transformational leadership has a significant positive linear correlation worth 0.464 with the question “I believe that by developing my leadership skills, performance will increase dramatically”, which

means that the use of transformational style by leaders will contribute to performance enhancement.

- Also, transformational leadership has a significant positive linear correlation with the question “the difference between a leader and a manager is that the leader is followed by people because they want to and the manager because they have to” by 0.448, which means that transformative leaders encourage, inspire and motivate employees to innovate and create changes that will help grow and shape the company’s future success.
- We have a significant positive correlation between transformative leadership and: inspiring motivation (0.431); intellectual stimulation (0.317); individual review (0.441); conditional compensation (0.773) and exceptional management (0.913).
- Transactional leadership has a positive strong correlation with: participative leadership (0.389); idealized impact (0.697); inspiring motivation (0.578); intellectual stimulation (0.667); individual review (0.583); conditional compensation (0.442); exception management (0.417); Laissez Faire Leadership (0.427);
- Laissez Faire Leadership was positively related to: developing my leadership skills will dramatically increase performance (0.512); the difference between a leader and a manager is that the leader is followed by the people because they want to, and the manager because they have to, and they are worth 0.479; proper assessment of the performance of employees in the organization (0.430); as well as exceptional management (0.430).

The following results present the correlation analysis according to employee’s answers.

- Transformational leadership has a strong positive linear correlation worth 0.750 with transactional leadership, a significant positive linear correlation with performance 1 and 2 (quality of your performance and productivity) 0.224, with general performance (quality of your performance and productivity) and the quality of performance and productivity of the individual compared to others who do similar things) worth 0.263, a strong positive linear correlation with Laissez faire leadership at 0.590 and significant positive correlation with

performance 1 (how do you evaluate the quality of your performance) worth 0.212, performance 2 (how do you evaluate your productivity at work) worth 0.226, performance 3 (how do you evaluate the work of other workers on their own jobs that do the same type of work compared to yours) worth 0.275 and performance 4 (how do you rate your performance in your work compared to other workers doing the same job) worth 0.184.

- Transactional leadership has a strong linear correlation of 0.750 with transformative leadership, Laissez faire leadership 0.506, and a significant linear correlation with autocratic leadership of 0.220.
- Autocratic leadership has a significant linear correlation with Laissez faire leadership, at 0.220, and it is very important to note here that autocratic leadership has a significant negative linear relationship with all variables of performance, with a performance 1.2 worth -0.191, with the general performance worth -0.275, with performance 1 worth -0.150, performance 2 worth -0.213, performance 3 worth -0.231 and performance 4 worth -0.340.
- Laissez faire leadership has a strong linear correlation, worth 0.506 with transactional leadership, a strong linear correlation worth 0.590 with transformational leadership, and there is no correlation with any performance.

Conclusion

In recent years, leadership has emerged as an important topic of academic and practical debate. Despite significant investment of money, time and effort, leadership remains a highly discussed concept and questions remain about the extent to which past and current theory and research contribute constructively to improving leadership development and practice. Although there are numerous studies that have expanded in the field of leadership; What is interesting is that no universally accepted conclusions have yet been reached about what is actually called effective leadership, which are the variables that contribute to the effectiveness of leadership and so on. This can be due to several reasons such as cultural differences, different attitudes of employees, different expectations of employees for their leaders, etc. More importantly, the situation plays an important role in determining the success of leadership. Leadership quality that is effective in one situation with a certain group of

members may not be effective with another situation or with another group of members. Numerous empirical evidence has shown that leadership behavior affects organizational performance that strong leaders outperform weak leaders, and that transformational leadership generates higher performance than transactional leadership. Leadership has been positively linked to employee performance, to transformational leadership behaviour, and to transactional contingents of award-based leadership. The implication of this finding is that managers who are seen as showing strong leadership behaviour, whether transformative or transactional, will be seen as engaged in increasing employee performance. The transformational leadership style has significant relationships with performance outcomes; namely work efficiency, satisfaction, extra effort and reliability.

The results of this study provide insight into what employees of their supervisors need and the type of behaviour of the leaders they prefer. This information can be used to help develop strategies and meet organizational needs by developing leadership behaviour. According to the results, some strategies can be proposed to improve supervisor leadership and employee performance. This research was conducted in the Polog region where a total of 200 employees and 32 managers in 32 small, medium and large companies were surveyed. In our research, which relied on certain companies in the Polog region where a total of 32 managers and 200 employees were surveyed, we tried to conclude which leadership styles are used by managers and which styles according to employees are appropriate to increase performance and vice versa adversely affect performance. We collected all these dilemmas and questions with a specially designed questionnaire submitted to managers and employees. Leadership styles that this research relies on are: Autocratic style, Transactional style, Transformational and Laissez faire leadership style. Leadership is perhaps the most researched organizational variable that has a potential impact on employee performance. Leadership styles were measured using Likert scale of 1-5 which are: strongly disagree, disagree, neutral, agree and strongly agree. Cronbach's Alpha the coefficient for both questionnaires indicates that the objects have a relatively high internal consistency.

Performance remains one of the most controversial concepts for which there will be no agreement between various researchers and theorists for a long time or never.

We can conclude that from both questionnaires the overall results are that Transformational Leadership has positively predicted employee performance, which means that if supervisors show greater transformational

leadership, employees will perform better. Thus, the results of the statistical analysis indicate that there is a positive correlation between transformational leadership and employee performance;

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UDC 336.76:004(100-772:100-775)
336.76:004(100-772:100-773)
(Professional paper)

MIKI RUNTEV*

THE IMPACT OF DIGITIZATION ON FINANCIAL MARKETS AND THEIR TENDENCY ON GLOBAL GROWTH

Abstract:

The motive for writing this paper is to answer the question of how digital technology has moved and how it has influenced digital financial markets to date in the face of heavy turbulence, challenges and crises. Various motives are the cause of the international trends, changes, effects and opportunities of the global digitalization movement in the international financial markets.

This paper links the issues of the relationship between financial globalization, financial liberalization to financial integration from one side, and from the other by monitoring and analyzing the digitalization movements in the financial markets and their transformation.

For this purpose, this paper generally, is divided into qualitative methodological studies drawing conclusions and interpreting them. Namely, the role, problems and conditions of the global processes that characterize the impacts of digitization on markets are described.

Further, how digitalization will reshape financial markets and monetary systems, and how digitalization of finance will affect the way markets are financed today, but what are the biggest opportunities, barriers and impacts associated with digitalization?

Therefore, the underlying research questions are with what sort of tendencies and movements that digitalization of financial markets had faced to date and what impact digitalization has had on major market turbulences and crises.

The purpose of this paper is to show the structure and dynamics of the digitalization of financial markets as they went through a transition process

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in underdeveloped countries in comparison with developing and developed countries.

In addition, the paper aims to highlight the reasons for the observed turbulence as well as to indicate possible future directions of action.

The research is expected to provide the following results: greater proper conceptualization of underdeveloped digital economies that can create new high quality institutions and help stimulate the introduction of innovation.

Keywords: digitalization of financial markets, financial globalization, international trade, international capital movement.

JEL Classification: F02, F63, G15

Introduction

Today, there is a fundamental change in financial markets. Such a change is with the digitalization of markets. Namely, money and international trade have begun to challenge the current understanding of monetary and financial systems, as countries are moving more aggressively towards non-cash systems, which are lurking as a potential technological foundation. Digital business models, traditionally associated with expanding access to financial products such as payments, loans and insurance, have attracted the most money and attention, but also experienced the most innovations that have led to new business models in the real economy. Also, private investors, often through the capital markets, have begun to create innovative financing instruments most often in sectors, such as climate action, clean environment and so on. Such was the scale of the electronic international movement of capital, with the rapid development of the technology industry to more easily locate the desired states. This allowed for greater volume and speed of capital transfers, information and the like from one place to another, with the aim of encouraging steady economic growth.

Therefore, this paper investigates the need, the role and the importance of digitization in financial markets, which have primarily become more visible in key segments of the state economies. Since the beginning of 2000, internet platforms and electronic networks have begun to emerge that have conducted international trading through the Internet. Examples of such well-known networks are Amazon, Ali-Express, eBay and other giants of international trade.

The subject of the paper is to present the new features, tendencies and influences of countries that have rapidly created a favorable digital business environment on digital markets. In this respect, the concept of digital economy is presented as a way of organizing people's activities aimed at creating (goods and services) that they need for consumption or directly related to the development and implementation of digital computer technologies. Namely, they enabled to process a large amount of information and to develop a range of services and markets through (provision of online services, electronic payments, transfers, transport, etc.).

The purpose of the article is to identify the impact and movement of the digitization of financial markets on the economic growth of developing countries in comparison with developed countries, and to contribute to a greater growth tendency of their financial platforms.

As a problem, it can be argued that the global digital economy is in a position where opportunities and risks are in balance. This is largely due to the dynamics of the digital economy in different countries, as well as the systemic nature of the forces driving digital development. Undoubtedly, leading and promising countries benefit from the combination of high levels of digitization and the participation of authorities in shaping their digital economy. One reason for this may be that many current bodies are equipped with inherited systems and structural complexities and are not well adapted to the impending digitalization trend.

The paper also highlights the advantages and disadvantages of the digitalization era in the financial markets.

It was essential to adjust the various elements of the domestic policies of the countries to global movements, which affected the overall conditions for the development of digital international trade.

The ultimate goal is to gain knowledge that all countries in the world are striving to develop a digital economy and market digitization as it contributes to GDP growth. It is also believed that the digital economy is the future of not only the economies of individual countries, but of the global economy as a whole.

1. TRENDS AND IMPACTS OF FINANCIAL DIGITIZATION ON FINANCIAL MARKETS

To speak about digitalization of financial markets, one must first distinguish what is *digitalization*, *digitization* and *digital transformation*. So, for example, *Digitalization* is information-oriented, the process of using digital technologies to change business processes and models; *Digitization* is aimed at changing the process from analogue to digital; Whereas, *Digital Transformation* is oriented towards changing business.²

Through the impact of market digitalization, there are significant opportunities for mobilization from the new way of financing.

Namely, this can be done by allocating limited resources and improving the efficiency of the distribution of funding. Some sectors require policies or infrastructure before digital funding can reach its potential. Therefore, there are still significant barriers and threats ranging from: lack of infrastructure and policies to threats to data privacy, cyber security, illicit financial flows, data discrimination, deepening of the digital barrier and so on. That is why financial services are already experiencing high levels of disruption, a trend that is projected to accelerate over the next decade. The banking, capital market and insurance industries are considered among the top five most vulnerable future disruptions. Changes in the weighting of major market indices indicate that the relevance of financial services to the market is threatened by the technology sector. Namely, most technology firms compete directly with financial services firms, offering payments, loans, savings and even wealth advisory products and services directly on their platforms. To this end, many companies have begun to exploit reduced entry barriers that enable digitalization and rapid market entry. In fact, global financing, for example, of Fintechs reached US \$ 111.8 billion in 2018, a 120% increase, while in 2017 it reached US \$ 50.8 billion.³ These conditions suggest that financial markets are ready to enter a period of high volatility, where technologically enabled disruptors (large and small) exploit structural weaknesses, redefine business roles, and monetize and unlock new sources of value.

One reason for this may be that many current bodies are equipped with inherited systems and structural complexities that are not well adapted to the impending digitalization trend. Because certain areas of the value chain of financial services have suffered low profitability. But new models of digital business can encourage disintegration of processes and play a key role again.

² Analysis of Miki Runtev PhD of economics, direction of international financial management.

³ Harnessing the Digitalization of Finance for the sustainable development goals, June 2019 p.6

However, reports⁴ also show that most of the service providers are in the category of payments, clearing and settlement, which allows for a gradual change in the billing paradigm. The Ernst & Young Index of Adoption of Finitex in 2017 highlights the impressive and rapid growth of Adoption of Fintech services in developed and emerging markets, with the highest rate of adoption of juniper in the younger markets.

In addition, it can be emphasized that the digitization of financial markets may contribute to a greater tendency for growth of their financial platforms. This enables the democratization of access to finance through the growth of platforms such as exchanges between, industry, banking, business, transport, tourism, e-commerce and the insurance industry. Therefore, digital technologies have been in place to accelerate the shift towards an economic platform in financial services. This has often been done by exploiting and facilitating the efficient exchange between producers and consumers. In this regard, digitalization has also fostered a new way of thinking about how to preserve fundamental rights, such as privacy and security, and the protection of monetary and financial stability. For example, insurance offers an excellent segment on how financial services companies generate new sources of revenue through partnering with non-traditional players to use new and existing data or such as car insurance products, smartphones, etc. By doing so, insurers have expanded the architecture of their micro-services using a suite of digital tools to break applications into simple, discrete services. As is E-commerce, with which social platforms have become service providers and marketplaces for financial services. Therefore, data-rich companies with tens of millions of connected users and strong brands are partnering with fintechs and traditional financial institutions to provide faster and simpler access to essential services.

Whereas for central banks, non-cash operations provided better data and analysis and could enable them to use more up-to-date information to make monetary policy decisions through leading economic indicators. By doing so, new technologies, such as stable coins (such as a kind of cryptocurrency backed by reserves), will make transactions and payments settlement faster and easier to verify. Also today, several central banks are considering issuing digital currencies, with some monetary theorists suggesting that they could provide greater maneuverability and stability during the recession and more

⁴ <http://www.nbrm.mk/ns-newsarticle-govor-na-anita-angelovska-bezoska-guvernerka-na-narodnata-banka-na-12-konferencija-za-plakanata-i-pazarnata-infrastruktura-otvoren-i-vrati-za-menuvane-na-plateznot-pejaz-3-5-juni-2019-godina-ohrid-severna-makedonija.nsp> accessed on 16.01.2020

regular interest rates. Therefore, the digital currency of central banks can help reduce money laundering or can be used to target individuals or groups of citizens. Thus, central banks will more easily manage the volatility of capital flows and the exchange rate in the era of the fast currency.⁵

However, digitization alone will not overcome the funding gaps, therefore, there are more significant opportunities today to mobilize it with greater impact funding and improve efficient allocation. Although difficult to measure, *there has been progress on digitalization to create the opportunity for further innovation and to have a greater but indirect impact on funding and sustainable development goals.*⁶ Many different sectors are ready for immediate collision with the new digital revolution. But many authors⁷ have studied and analyzed these opportunities and tendencies to identify where there would be more potential. For example, they highlighted several levels of potential impacts of digital funding through:⁸

- *Mobilization*: access to new funds by attracting new sources, for example, by attracting private investors or increasing the volume of existing sources through greater mobilization of domestic resources;
- *Use*: through this, a more accessible pool of funds can be made and better targeted to enhance impacts, including redirecting existing funds;
- *Payment*: creating a resource transfer process, both in the context of aid and grants, while making investment more efficient and transparent.

Thus, it can be emphasized that public policy determines the success of the digital economy. To solve the problem of “slowed down” economic development of countries, it is recommended to legally provide several segments: public-private co-operation in the field of digital innovation; more active use of automation, information flow and new technologies in the economy; investing in student training, skills and thinking for a successful existence in the digital world; improving access to investment and digital infrastructure and reducing inequalities; reasonable legal norms that keep pace with changing competition rules and demonstrate a dynamic approach to protecting the interests of consumers without slowing the introduction of innovation.

⁵ Harnessing the Digitalization of Finance for the sustainable development goals, June 2019 p.11

⁶ Analysis of Miki Runtev PhD of economics, direction of international financial management

⁷ Harnessing the Digitalization of Finance for the sustainable development goals, June 2019 p.19

⁸ Harnessing the Digitalization of Finance for the sustainable development goals, June 2019 p.21

Thus, in order for digitalization to achieve the potential impacts described above in the paper, the need for investment in the basic digital infrastructure is required. The benefit of digital financial services has had a very good effect on the markets where investments have been made in digital infrastructure. The investments and services supported by the markets are crucial for creating a basic digital financing activity. This could have a major impact on capital markets. According to the World Bank⁹ the growth of the digital economy with digital business models globally has almost reached \$ 40 billion annually, which is being pumped for financial inclusion. While much of that funding is also directed toward building and enabling digital financial services infrastructure. Although, it is clear that investments in digital infrastructure can lead to attractive long-term payments. Therefore, they must have more active investments in this infrastructure to realize the benefits and mitigate the risks of deepening the digital divide.

For example, some research has tried to answer, whether there is a limited understanding of how the digitalization of the financial sector will have a comprehensive (positive or negative) effect on the flow of money, information, materials and the like through digital financing.

Accordingly, it can be argued that today's digitalization can have a major positive impact on the economy because it: fosters innovation and increases productivity, transforms public and private services, contributes to greater financial inclusion of households with insufficient access to services. And generally plays a role in improving the well-being of society by providing greater access to information, knowledge, data, transfer, transport and so on.

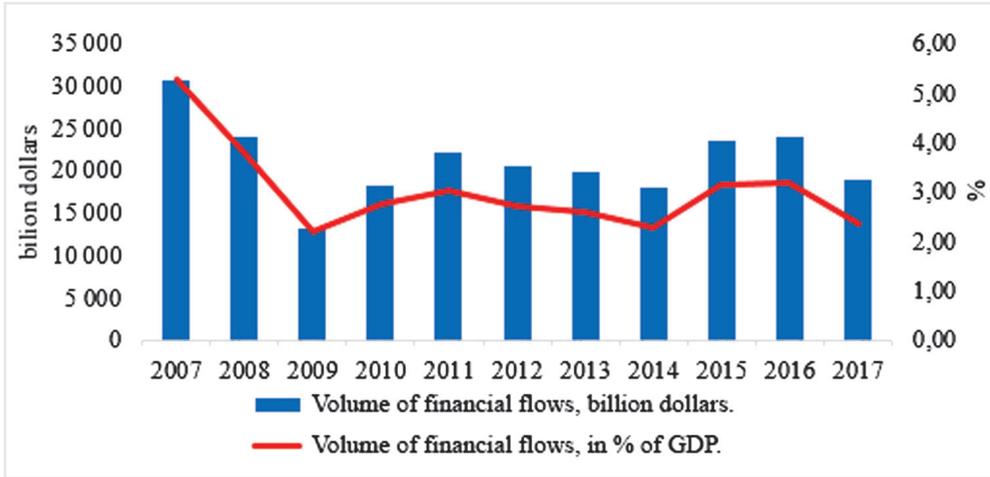
2. THE GLOBAL GROWTH OF DIGITIZATION IN FINANCIAL MARKETS

In the past 20 years, digital technology has played an increasingly important role in the digitalization of financial markets. Thus, thanks to the digitalization and banking industry has gained significant development. With the beginning of the use of electronic networks, the transaction speed has increased significantly. The emergence of global networks has greatly facilitated international money transfers, which has contributed to the further integration of countries and their financial markets. The development of financial technology has led to the emergence of technical innovations such

⁹ Harnessing the Digitalization of Finance for the sustainable development goals, June 2019 p.24-25

as blockchain and cryptocurrency. With the development of this technology, more and more users will be involved in the financial network, which will also contribute to the integration of the economies of different countries.

Table 1. Dynamics of financial flows from 2007 – 2017



Source: <https://ecfor.ru/publication/tsifrovye-aspekty-finansovoj-globalizatsii/> accessed on 28.01.2020.

It is evident from the table that, due to the global financial crisis of 2008, there was a tendency to decrease in the connection of global financial flows, both in absolute terms and as a percentage of global GDP. It indicates that, if in 2007, according to the World Bank, this indicator was \$ 30.56 trillion, then in 2009, the connection is \$ 13.09 billion. While already in 2014–2015, there is an increase in the volume of linking of financial flows both in absolute value and in relation to world GDP.¹⁰

However, it can be added that the largest financial inflow (more than 0.25% of global GDP) was linked Western Europe, North America and China. However, if in 2002 North America was the center of intersection of the largest financial flows, in 2014 the largest flows link Western Europe with America and South Asia.¹¹ This turbulence can be explained by simplifying financial transactions between different countries thanks to digital technologies. As a result, more and more regions have the opportunity to be included in the

¹⁰ <https://ecfor.ru/publication/tsifrovye-aspekty-finansovoj-globalizatsii/>

¹¹ <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20globalization%20The%20new%20era%20of%20global%20flows/MGI%20Digital%20globalization%20Executive%20summary.ashx> p.09-10

network of global financial flows. The number of global financial flows has begun to increase, due to digitalization. Thanks to digital technologies, the economic risks have been reduced by globalization. This has helped to eliminate the effects of the global financial crisis.¹²

In the era of digital globalization, countries with advanced digital technologies and world financial centers have also changed their attitude. For example, if in 2008 the first five exchanges with the most capitalization were represented mainly by US and European exchanges, then in 2018 3 of the 5 largest exchanges were in Asia, while many European exchanges were in lower positions.¹³

Overall, the composition of leaders in world trade has not changed much over the past 10 years.

The question of regulating modern technologies in most areas of life and the economy remains open. In many respects, the future of global processes depends on whether governments in different countries will support widespread use of digital technologies that help integrate the world community or abandon them in favor of protecting national economies.

Thus, as regards traditional financial institutions, such as banks, on the one hand they may face strong competition from new entrants, but on the other hand, they may also benefit from greater efficiency, competitiveness and the ability to offer the latest technology services. Acceptance of digitalization of payments has the potential to significantly reduce costs, increase efficiency and provide wider access to payment services.

Accordingly, payment innovations and the digitization process also have an impact on the transformation of the payment services market infrastructure. These developments, however, have raised various issues related to the requirements of banks' openness, customer safety, transparency and trust in the payment services market, as well as the protection of consumer rights. The introduction of digital technologies has unequivocally led to the transformation and revision of the foundations of the global economy, as the modern economy is a database management economy. *Therefore, it is emphasized that digitalization is synonymous with the transformation of society, processes, markets, businesses.*¹⁴

¹² <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20globalization%20The%20new%20era%20of%20global%20flows/MGI%20Digital%20globalization%20Executive%20summary.ashx> p.11 accessed on 04.02.2020

¹³ <https://ecfor.ru/publication/tsifrovye-aspekty-finansovoj-globalizatsii/> accessed on 06.02.2020

¹⁴ Analysis of Miki Runtev PhD of economics, direction of international financial management

In many countries around the world the process of introducing “digital technologies” into the economy is still in the process of analyzing the expansion of potential opportunities. The imperfections of the technical base, software, computer literacy of the population, the lack of proper regulation, the legislative basis are limiting factors for the widespread introduction of computer technology and the integration of new “digital technologies” into the business environment.¹⁵

The countries that make the most of this digitalization in the financial markets have the potential to become leaders of the future, and as such can be distinguished: China, Japan, Malaysia, Bolivia, Kenya and Russia, the United States, Germany, England, and so on.¹⁶ The world’s leading countries have highly developed digital economies and powerful development dynamics. They stimulate the introduction of innovation, effectively using their advantage. However, it is very difficult to maintain high growth over time, and innovations are often a precarious basis for expanding economic impact. In order not to lose their positions, these countries need to create new demand, and the development of innovative solutions needs to go entirely within them. Otherwise, they run the risk of moving to the category of slowing down countries.

Conclusion

The stabilization of the international economy and the strengthening of the process of financial globalization, especially since the post-crisis period and the many turbulences in international trade so far, have caused changes in the digitalization of financial markets and their role in the development of countries.

Significantly, the digitization of markets began to be regarded as one of the channels through which countries gained access to the most modern technologies whose diffusion played an important role in economic growth.

It can be concluded that innovations in digital finance that underpin the link between digitalization and finance offer broad opportunities that governments want to exploit. This can reduce costs and barriers, increase

¹⁵ <https://ecfor.ru/publication/tendentsii-tsifrovizatsii-stran-mirovoj-ekonomiki/> accessed on 18.02.2020

¹⁶ <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/McKinsey%20Digital/Our%20Insights/Digital%20globalization%20The%20new%20era%20of%20global%20flows/MGI%20Digital%20globalization%20Executive%20summary.ashx> p.14-15

efficiency and competition, reduce information asymmetry and increase access to financial services, especially in low-income countries, but also for the population with insufficient access to services. Current innovations and technological advances have supported widespread economic development and inclusive growth, enabling payments and services abroad.

The purpose of this paper is to provide guidance on the need for vigilance in politics for economies to become resilient and inclusive in order to obtain all the benefits. In response, policy-making should be active, innovative and cooperative, and most importantly, digitalization would strike a balance between providing financial innovation and overcoming many market challenges on the one hand. While, on the other hand, with the greater application of digitalization, consumers will be more protected, but there will also be greater financial stability in the markets. This balance is essential for providing social goods from financial innovation and for avoiding stagnation in the development of digital finance.

According to this, it can also be concluded that public policy is the main factor and instrument for the development of the digital economy of the states, as well as the number of participants using different types of communication.

The purpose of the article was to point out that digitalization has had a significant impact on global funding and, thanks to the changes, many countries have had great opportunities to participate in the movement of financial flows. The advent of digital platforms has also allowed many foreign managers to invest worldwide, controlling their investments, which was previously impossible. Thus, with the advent of digital programs, the analysis of financial markets has been facilitated, which may also reduce the risk of financial flows. With the development of technology, the tendency to facilitate the implementation of financial activities will lead to the further development of digitalization of markets.

Summing up, it can be concluded that digitalization has a significant impact on financial markets. Since the end of the global financial crisis, the inclusion of individual countries in global financial networks has begun to gradually increase due to the simplification of operations thanks to modern technologies.

As the most significant conclusions from the most recent empirical researches mentioned in the paper, they found an increase in the competitiveness of Asian countries in which there is an active development of new technologies. In this region, financial exchanges have developed significantly in recent years.

It can also be concluded that, today, humanity is entering the process of digitalization development or the so-called new digital age, which is primarily related to the development of the mobile network, the Internet, the banking sector and digital technologies. This phenomenon has many sides: political, social, cultural, economic, market and financial. According to most researchers, one of the most important phenomena of economic globalization is the financial digitalization of markets.

However, it can be determined that during digitalization there is a process of rapprochement in the financial markets, in order to increase the activity of transnational banks and transnational corporations, development of world financial centers, institutions, development of financial innovation and so on.

As an essential problem, it is argued that with the advent of the digital revolution, financial markets will overcome the problems they faced in the past turbulent period, in order to create greater benefits for states, companies and people.

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